

SCOTTISH HOSPITALS INQUIRY

Bundle of documents for the Oral hearing commencing on 12 June 2023 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Bundle 1 – Incident Management Team Meeting Minutes (IMT minutes)

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**Outbreak Meeting regarding NICU, RHC
Ward 48 Seminar Room
Monday 2nd November 2015**

Present: Prof Craig Williams (CW), Pamela Joannidis (PJ), Dr Morag Campbell (MC), Jennifer Rodgers (JR), Fiona Aitken (FA), Emma Edwards (EE), Dr Judith Simpson (JS) Patricia Friel (PF), , Calum MacLeod (Minutes)

Welcome & Apologies

Professor Craig Williams welcomed everyone to the meeting and introductions were made.

Confidentiality

Everyone is reminded that all patient identifiable information is confidential.

Minutes of last meeting

Minutes of the previous Outbreak meeting held on Thursday 29th October 2015 have been amended.

Background to Meeting

Four patients with colonisation of *Serratia marcescens*.

Serratia marcescens Patients

Five cases of *Serratia marcescens* identified during the month of October 2015. This brings the total number of cases to thirteen since the 20th of July 2015.

One of the four cases of *Serratia marcescens* is a different type to the others.

Out of the thirteen cases seven of which have the same *Serratia* typing strain.

Professor Craig Williams said that only certain types of samples(ETA) have the organisms identified to species level. In addition further identification requires that samples are sent to Colindale Lab for typing. Professor Williams also informed the group that it usually takes at least two weeks for typing results to come back.

Serratia is often associated with a baby's gut rather than the environment they are in.

None of patients currently with *Serratia marcescens* in the Neonatal Unit are currently giving any cause for concern.

It was agreed that none of the patients will be cohorted as it cannot be guaranteed that the patients have the same strains of *Serratia*.

[REDACTED] The remaining patients are colonised with *Serratia marcesans*.

Hospital Infection Incident Assessment Tool (HIIAT)/Watt Risk Matrix Class

The Hospital Infection Incident Assessment Tool (HIIAT) is referred to for all outbreaks to identify the impact of the outbreak on patients, services, Public Health and public anxiety. The team ratified a HIIAT score of RED which was agreed over the weekend. It is not clear that this strain is related to other organisms on the unit and we will need to await typing and links to other strains.

Dr Christine Peters prepared a brief statement on Saturday 31st October which was reviewed/signed off by Dr Jennifer Armstrong and sent Jim McMenemy at Health Protection Scotland who informed the Scottish Government of the situation.

Agreed Communications

Professor Williams will speak to Health Protection Scotland and will cover any interviews requested by the media until Dr Mathers finishes his clinical duties at 1800 tonight.

An information leaflet for staff and parents should be prepared outlining –

- What is *Serratia*
- What actions are being taken

Emma Edwards will prepare a press statement with some Questions and answers at the bottom of it.

It was agreed that before today's press statement is sent to Jim McMenemy, it should be reviewed by Jamie Redfern and Dr Jennifer Armstrong.

Professor Williams also requested that Sheenagh Leighton from Facilities and Public Health should be informed of the situation.

Email confirmation is to be sent to Professor Williams that parents of the patients within the Neonatal Unit have been informed of the situation by 1530.

It was agreed that the clinical aspects of the action plan will be reviewed at a further meeting tomorrow

Date of next meeting to be confirmed

CW

PJ

JR/PJ

EE

PJ

Clinical
Team

**Outbreak Meeting regarding NICU, RHC
Meeting Room 12, Office Block, QEUH
Tuesday 3rd November 2015**

Present: Prof Craig Williams (CW), Heather Dawes (HD), Pamela Joannidis (PJ), Jennifer Rodgers (JR), Emma Edwards (EE), Dr Judith Simpson (JS), Patricia Friel (PF), Angela Johnson (AJ), Sandra McNamee (SM), Sheenagh Leighton (SL), Dr Iain Kennedy (IK), Dr Jonathan Coutts (JC), Billy Hunter (BH), Jamie Redfern (JR), Katrina Alexander (KA), Elaine Love (EL), Janice Jack (JJ), Calum MacLeod (minutes)

Present Via Conference Call - Lisa Ritchie (LR), Heather Wallace (HW)

Welcome & Apologies

Professor Craig Williams welcomed everyone to the meeting and introductions were made.

Confidentiality

Everyone is reminded that all patient identifiable information and discussions are confidential.

Minutes of last meeting

Minutes of the previous Outbreak meeting held on Monday 2nd November 2015 have been amended.

Background to Meeting

There are four patients with colonisation of *Serratia marcescens* currently in the Neonatal Units at the Royal Hospital for Children on the Queen Elizabeth Hospital site.

Serratia marcescens Patients

Pamela Joannidis updated the group on the patients -

Four patients with *Serratia marcescens* are currently in the Neonatal unit. [REDACTED]

Seven of the *Serratia*'s have the same typing. Two strains are unique. In summary three different strains of *Serratia* have been identified.

Typing results are pending for four patients.

Professor Williams informed the group that it usually takes at least two weeks for typing results to be reported. Colindale lab has identified that the seven *Serratias* identified are a common strain.

[REDACTED]
Historically these babies would have been located in the old Yorkhill site before the amalgamation of the units in June 2015.

Actions

None of the patients currently colonised with *Serratia marcescens* in the Neonatal Unit are currently giving any cause for concern.

It was agreed that the four patients remaining in the unit will not be nursed in a cohort as it cannot be guaranteed that the patients have the same strains of *Serratia*.

[REDACTED]

Details of the all the patients involved were provided in a separate timeline given to the group.

Updated Action Plan

Equipment Storage – the clinical team are currently looking into storage for clinical equipment in a room without a hand hygiene sink.

Neonatal Transport Room – Morag Liddell has spoken to estates regarding the removal of the Clinical Hand Wash sink.

Gloves & Apron Dispensers – Relocating dispensers for gloves and aprons from their current location behind pendants is currently ongoing. It was suggested that the aprons could be relocated to the side of the cots or on the patient notes trolley. Relocation of purple aprons from the shelf above the trough sinks is currently being reviewed.

Exception reports for cleaning – Sheenagh Leighton has rescheduled the domestic so that more hours are spent within the unit rather cleaning outwith the clinical area. Domestic cover for the Neonatal unit is as follows – NICU 0700-1500 then 1630 – 2030 SCBU – 0700 – 1500 & 1700 – 2000

Access Issues – Sheenagh Leighton is to arrange a meeting with the Clinical Team to discuss domestic cleaning times that would suit the Neonatal unit as people traffic within the unit is very high during the day. It was suggested that domestics could start earlier in the morning or during the night when the unit is much quieter.

Cleaning Issues – any issues with the cleaning are to be escalated by the Senior Charge nurse to facilities immediately.

Flushing of hand hygiene sinks – Documentation for the daily flushing of hand hygiene sinks.

Twice daily clean of all hand hygiene sinks - The twice daily clean of the all the hand hygiene sinks (38 in total) within the ward has started.

Domestic Duties – Sheenagh Leighton is to clarify the expectations that the Neonatal has of the General Services assistant and what the GSA is actually required to do and the actions around this.

Ventilator Circuits – water samples have been collected from a used ventilator circuit and sent for detection of bacteria. Senior Charge Nurse said that the ventilator components fall apart too easily and not good quality. Professor Williams stated that if we receive positive water samples from the ventilator circuit/humidifier then we shall have to examine the rationale for the continued use of the circuits and escalate as a safety action notice.

Foil Bowls – Water wipes are being introduced into the unit so that the use of foil bowls will only be used for older babies and will be single once only use.

Hand Hygiene Education for parents – Stefan Morton (Hand Hygiene co-ordinator) is working with the volunteer service regarding training.

PVC/CVC Care Bundles – the use SAB PVC/CVC care bundles have been reinforced with the clinical team.

Stefan Morton carried out a Hand Hygiene audit on the NICU ward on Monday 2nd November. The score was 95% compliance and 60% compliance and technique. Four staff members were seen wearing watches when carrying out hand hygiene. The clinical team have asked for a breakdown of this audit to identify the staff group wearing watches.

Morag Liddell has been carrying out regular audits of the compliance with documentation for teaching mothers how to clean the breast pumps and associated equipment. Professor Williams requested a formal report of the audits carried out on the breast pumps and to ensure there is a robust cleaning checklist in place.

ML/CW

Dr Judith Simpson requested bacteriology swabs of the breast pumps. Professor Williams agreed.

Hospital Infection Incident Assessment Tool (HIIAT)/Watt Risk Matrix Class

The Hospital Infection Incident Assessment Tool (HIIAT) is referred to for all outbreaks to identify the impact of the outbreak on patients, services, public health and public anxiety. The team ratified a HIIAT score of GREEN after agreeing there was Minor impact on Patients, Services and Public Health and a moderate score on Public Anxiety.

Lisa Ritchie from Health Protection Scotland was uncomfortable with the HIIAT score as a green and advised amber. Her reason for this is that there is an extensive action list which is currently ongoing and there is an unknown source of Serratia which still remains a risk. Professor Williams will contact Dr Jennifer Armstrong to discuss the HIIAT score and will contact Lisa from HPS with the final outcome.

Communications

The possible closure of the Neo natal unit was discussed. Dr Jonathan Coutts stated that if the Neonatal unit were to close it would have a significant impact on services. He also raised concerns regarding the definition of an outbreak. Sandra McNamee reiterated the GG&C definition of an outbreak is two or more linked cases or a higher than expected number of cases over a specified time period.

Dr Judith Simpson has spoken to the parents of the patients colonised with Serratia. Dr Simpson raised concerns that parents had with the current media coverage of the outbreak and the anxiety this has caused.

Emma Edwards has said there have been enquiries from the media but not overwhelming interest. There are no plans to release a press statement today.

Date of next meeting will be to be confirmed

**Outbreak Meeting regarding NICU, RHC
Meeting Room 14, Office Block, QEUH
Thursday 5th November 2015**

Present: Prof Craig Williams (CW), Lisa Ritchie (LR), Heather Dawes (HD), Pamela Joannidis (PJ), Jennifer Rodgers (JR), Dr Anne Marie Heuchan (AMH), Patricia Friel (PF), Angela Johnson (AJ), Sandra McNamee (SM), Sheenagh Leighton (SL), Dr Iain Kennedy (IK), Dr Jonathan Coutts (JC), Ian Powrie (IP), Jamie Redfern (JR), Calum MacLeod (minutes)

Apologies – Emma Edwards (EE)

Welcome & Apologies

Professor Craig Williams welcomed everyone to the meeting and introductions were made.

Confidentiality

Everyone is reminded that all patient identifiable information and discussions are confidential.

Minutes of last meeting

Minutes of the previous outbreak meeting held on Tuesday 3rd November 2015 have been amended. All amended minutes of previous outbreak meetings will be sent to the group.

Background to Meeting

There are three patients with colonisation of *Serratia marcescens* currently in the Neonatal Units at the Royal Hospital for Children on the Queen Elizabeth Hospital site.

Serratia marcescens Patients

Pamela Joannidis updated the group on the patients -

Three patients with *Serratia marcescens* are currently in the Neonatal unit.

The Infection Prevention & Control Team have requested that the +ve *Serratia* patient in [REDACTED] have their bed space cleaned twice daily.

The group discussed when a patient can be classed as a definitive –ve *Serratia* case as there is no national guidance. The group agreed that three consecutive –ve screens are needed for a patient to be classed as –ve case.

The last +ve newly identified colonisation with *Serratia* occurred on 26th October 2015.

None of the patients currently colonised with *Serratia marcescens* in the Neonatal Unit are currently giving any cause for concern.

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Actions

CMac

Typing results are pending for four patients.

Updated Action Plan

Damage to Incubator port hole doors – the replacement of the damaged incubator doors is ongoing. Six out the ten incubator porthole doors have been replaced.

Equipment Storage – the clinical team are converting the seminar room into a store room for equipment. Most of the equipment is in use rather than stored behind pendants.

Neonatal Transport Room – Room 8 is going to be reinstated as a clinical room. All equipment stored in this room has been moved out and the room should be ready for use by Friday after cleaning has been carried out. Sheenagh Leighton informed the group that the Clinical Hand Wash sink within Room 8 has been included on the regular flushing regime. The Clinical Team have agreed to keep the clinical wash hand basin in Room 11 which is currently storing Neonatal transport equipment. This sink will be cleaned daily.

Relocation of Gloves & Apron Dispensers – Estates were in the neonatal unit on the 5th November to see where the glove & apron dispensers could be relocated. Patricia Friel said staff are taking a roll of aprons and box of gloves on their trolleys for individual patients.

Exception reports for cleaning – The breast feeding room will be cleaned twice daily FROM 06/11/2015. Heather Dawes will meet with Sheenagh Leighton to agree access for cleaning possibly between 0730 – 0900.

Access Issues – domestics are to approach the Senior Charge Nurse regarding any access issues. Staff within the Neonatal unit are to make sure that there is easy access to hand hygiene sinks for domestics to clean. An exception report is to be filled out if any issues occur.

Cleaning Issues – any issues with the cleaning are to be escalated by the Senior Charge nurse to facilities immediately.

Flushing of hand hygiene sinks – Documentation for the daily flushing of hand hygiene sinks now in place.

Twice daily clean of all hand hygiene sinks – soap residue and splashing of water around the sinks due to tap. To minimise splashing estates are trying to replace it with a shorter version of the current tap. Before installing the new tap Ian Powrie will contact the Pamela Joannidis to see if it is acceptable. Additional hand towel dispensers have been installed.

Infection Prevention & Control Team noted rust around Hibiscrub brackets during a recent visit. Sheenagh Leighton stated she has got some spare and will provide these to the neonatal unit.

Domestic Duties – Sheenagh Leighton is prioritising NICU on level 1 in the morning then onto Level 2 SCBU in the afternoon.

Ventilator Circuits – the water samples collected from a used ventilator circuit have been sent for sampling should be available on Friday/Monday and will be discussed at the next meeting. If the sample is returned as negative then Professor Williams has asked for another 5 circuits to be sampled.

Foil Bowls – Water wipes to clean babies have been ordered and should arrive in the next few weeks. Use of foil bowls will only be used for older babies and will be single use only. Patricia Friel agreed to take this forward.

Hand Hygiene Education for parents – The Infection Prevention & Control Team will develop an education programme for parents which will include hand hygiene and disposal of bath water etc.

PJ/IP

SL

PF

IPCT

PVC/CVC Care Bundles – a neonatal group is being set up to look at line sepsis, PPE and screening in all neonatal units in GG&C. Pamela has requested that nominations of medics from each neonatal unit across GG&C. SPSP are supporting this group and will be sending a representative. The first meeting is being held on the 12^h November 2015.

Additional Control Measures

Jamie Redfern asked the group if there were any critical estates issues in the neonatal unit. The group confirmed that there was no major estates issues within the neonatal unit.

Professor Williams has asked for recent results from hand hygiene compliance audits carried out by staff within the neonatal unit. These are to be reviewed at the next meeting.

The group requested a breakdown of staff seen by Stefan Morton while carrying out a Hand Hygiene audit on the NICU ward on Monday 2nd November. Stefan Morton always provides feed back to staff when he observes non compliance with hand hygiene. Pamela Joannidis will contact Stefan to identify the particular group of staff wearing watches. It was reiterated that watches can be worn when entering the neonatal unit but should be removed when doing clinical duties including hand hygiene.

Jamie Redfern emailed the managers of the specialities who use the Neonatal unit to reiterate with their staff the importance of hand hygiene.

Angela Johnson carried out SICPs training with new start Neonatal staff on the 5th November

Hospital Infection Incident Assessment Tool (HIIAT)/Watt Risk Matrix Class

The Hospital Infection Incident Assessment Tool (HIIAT) is referred to for all outbreaks to identify the impact of the outbreak on patients, services, public health and public anxiety. The team ratified a HIIAT score of GREEN after agreeing there was Minor impact on Patients, Services and Public Health and a moderate score on Public Anxiety.

Lisa Ritchie from Health Protection Scotland voiced her concerns with a HIIAT score as a green and advised a HIAAT score of amber. [REDACTED]

[REDACTED]. She also said that there was no indentified source of the Serratia and no environmental swabbing results.

The group reassured Lisa that they are managing the current action plan and holding regular meetings to update it. The group are following the guidelines: - a score of three minor and one moderate score gives a HIIAT score of green.

The group agreed that they will score the outbreak as a green but manage it as an amber.

Communications

Jamie Redfern asked if there was a cover base line to step down the meetings. Professor Williams has contacted similar Neonatal units in Manchester and London to establish a baseline for Serratia colonisations.

Professor Williams is also working on a historical base line for occupied bed bays in the old NICU in Yorkhill compared to the occupied bed bays in the amalgamated NICU at RHC.

Emma Edwards spoke to Professor Williams today and said there had been one media enquiry today.

A press statement will be compiled on Friday and will be circulated to the group for comment before being released.

SCN

PJ

CW

Lisa Ritchie (HPS) was supportive of the current action plan and advised two additional actions:-

- Isolate all remaining babies in single rooms if possible
- Observe real time cleaning of patient equipment.

Pamela Joannidis reported that in requesting isolation, where this was not possible, the bed spaces of each baby would be cleaned twice daily with chlorine based detergent as per SOP for the twice daily clean of an isolation room.



**Date of next meeting is on Monday 9th November
Conference Room GWS-008, Level 3, RHC**

**Outbreak Meeting regarding NICU, RHC
Conference Room, GWS-008, RHC
Monday 9th November 2015**

Present: Prof Craig Williams (CW), Heather Dawes (HD), Pamela Joannidis (PJ), Dr Anne Marie Heuchan (AMH), Patricia Friel (PF), Angela Johnson (AJ), Sheenagh Leighton (SL), Dr Jonathan Coutts (JC), Morag Liddell (ML), Dr Carol Lucas (CL), Ann Muir (AM), Calum MacLeod (minutes)

Present Via Teleconference – Lisa Ritchie (LR), Heather Wallace (HW), Dr Iain Kennedy (IK)

Apologies – Emma Edwards (EE), Ian Powrie (IP), Jennifer Rodgers (JR), Nicola Brindley (NB), Jamie Redfern (JR)

Welcome & Apologies

Professor Craig Williams welcomed everyone to the meeting and introductions were made.

Confidentiality

Everyone is reminded that all patient identifiable information and discussions are confidential.

Minutes of last meeting

Lisa Ritchie will email Calum Macleod with changes she would like to the minutes from the meeting held on Thursday 5th November.

Background to Meeting

There are three patients colonised with *Serratia marcescens* currently in the Neonatal Unit at the Royal Hospital for Children on the Queen Elizabeth Hospital site.

Serratia marcescens Patients

Pamela Joannidis updated the group on the patients -

Three patients with *Serratia marcescens* are currently in the Neonatal unit.

- One patients is in [REDACTED]
- Two patients are in [REDACTED].

[REDACTED] Urine, blood and respiratory samples have been sent to the lab on Monday 9th November.

None of the patients have had three consecutive –ve screens, so are still being treated as +ve with *Serratia marcescens*.

[REDACTED]

All 3 remaining patients are colonised with *Serratia marcescens* in the Neonatal Unit and are currently not giving any cause for concern.

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Actions

LR

Typing Results

Three different types of Serratia have been identified from the 12 patients who have been colonised.

[REDACTED]

[REDACTED]

[REDACTED]

Swabbing Results

Ventilator Circuits – the microbiology results from the water samples collected from a used ventilator circuit are 2 colonies of gram +ve organisms possibly Streptococcus or Staphylococcus. Professor Williams has requested that four more samples are to be taken from used ventilator circuits to see if there are any other organisms found.

Breast Pumps – no growth was found in swabs taken on the breast pumps. Professor Williams has requested that samples are taken from the breast pumps on a weekly basis.

Updated Action Plan

Decontamination of Humidity Tank – Angela Johnson is to make a few final adjustments to the SOP for the decontamination of the humidity tanks and will send out to Senior Charge Nurse once complete.

Damage to Incubator port hole doors – the replacement of the damaged incubator doors is ongoing. Nine out of the ten incubator porthole doors have been replaced.

Equipment Storage – the conversion of the seminar room into a store room for equipment is complete.

Neonatal Transport Room – Room 8 has been reinstated as a clinical room. All equipment stored in this room has been moved out and the room is ready for use. The Clinical Team have agreed to keep the clinical wash hand basin in Room 11 which is currently storing Neonatal transport equipment.

Relocation of Gloves & Apron Dispensers – Staff are taking a roll of aprons and box of gloves on their trolleys for individual patients. Issue is ongoing until solution of where aprons & glove dispensers can be located.

Access Issues – Access to clean the breast feeding room has been highlighted as an issue when a parent is using it. It was agreed that the domestic raise access issues with the nurse-in-charge at the time

Twice daily clean of all hand hygiene sinks – Before installing a new tap onto a CWHB Ian Powrie will contact Pamela Joannidis to ensure replacement is appropriate.

Infection Prevention & Control Team noted rust around Hibiscrub brackets during a recent visit. Sheenagh Leighton has some spare brackets and will provide these to the neonatal unit.

Domestic Duties – Sheenagh Leighton confirmed that domestic cover for the neonatal unit is 7 days a week and that NICU is being cleaned in the morning before the doctor's rounds are taking place.

Hand Hygiene Education for parents – The Infection Prevention & Control Team is meeting with the volunteer service to discuss an education programme for parents which will include a range of topics including hand hygiene and use of clinical hand hygiene sinks.

Hand Hygiene audit for staff - will be discussed tomorrow when meeting with the SCN. It was identified that hand hygiene training is to be extended to medical staff and AHPs.

Patient isolation – All +ve patients should be isolated where possible. The NICU unit currently has three cubicles available for patients requiring isolation. Room 11 will stay as a store for neonatal transport equipment. Room 3 is currently being used for babies from the post natal wards requiring IV antibiotics and could be brought back in to use as a 4th single patient room. IPCT has a priority of isolation policy which Pamela will disseminate to the group.

SICPs training - Pamela & Morag Liddell will meet up to discuss SICPs training and staff carrying out SICPs audits.

Additional Control Measures

The IPCT have requested a floor plan of the unit from Estates to provide to HPS.

A review of the each patient's bed movements is ongoing by the IPCT.

The four staff identified wearing watches during a recent hand hygiene audit by Stefan Morton was discussed. It was reiterated that Stefan's audit looks at staff carrying out hand hygiene i.e. gelling hands before entering ward. It was recognised that the Uniform Policy states that staff can wear a watch unless delivering care and the Hand Hygiene Policy asks staff to remove their watch to undertake hand hygiene. Sheenagh Leighton is to discuss this with Stefan Morton.

Staff are receiving daily safety briefs regarding the situation within the neonatal unit. Heather Dawes also confirmed that communication to all staff groups has been undertaken by Jamie Redfern.

Morag Liddell informed the group that a peer audit was carried out a few weeks ago and they were impressed with staff knowledge and hand hygiene during their walk round.

Ann Muir asked if the current Q&A leaflet is still to be provided to parents in the unit. It was agreed that it should.

Professor Williams requested that a local hand hygiene audit be carried out within the NICU ward.

Hospital Infection Incident Assessment Tool (HIIAT)/Watt Risk Matrix Class

The Hospital Infection Incident Assessment Tool (HIIAT) is referred to for all outbreaks to identify the impact of the outbreak on patients, services, public health and public anxiety. The team ratified a HIIAT score of GREEN after agreeing there was Minor impact on Patients, Services and Public Health and a moderate score on Public Anxiety.

Lisa Ritchie from Health Protection Scotland voiced her concerns with a HIIAT score as a Green and advised a HIIAT score of Amber. She reiterated that there are linked cases of colonised Serratia and there was no identified source of the Serratia. Dr Jonathan Coutts commented that the IMT were now being asked to deviate from the HIIAT tool to achieve an Amber score.

The group agreed that they will score the outbreak as a Green but manage it as Amber.

AOCB

Dr Carol Lucas is monitoring other organisms within the neonatal unit. The results of the routine screening samples will be available by the 12th November.

Dr Jonathan Coutts expressed concern about factually inaccurate content within newspaper articles. Professor Williams will contact the press office regarding this.

**Date of next meeting is on Thursday 12th November
Conference Room GWS-009, Level 3, RHC**

Draft

Notes of 1st IMT for PICU (Ward 1D), 24th December 2015, 10.30 am, ward 1D, RHC

Present: Craig Williams, Leda ICD (CW); Mandy Meechan, SCN (MM); Jennifer Rodgers, chief Nurse, (JR1); Jamies red fern, Acting director / General Manager, (JR2); Sheenagh Leighton, Assistant Site Facilities Manager, (SL); Lisa Ritchie, NC –HPS, (LR); Richard Levin, Consultant, (RL) and Pamela Joannidis, NCIPCN, (PJ) (Minutes).

1. Welcome

CW welcomed everyone to this meeting at such short notice and reminded everyone that all patient data discussed was confidential.

2. Patients

PJ described two patients who had specimens positive for *Pseudomonas aeruginosa* on 17.12.15.

3. Infection control actions

PA water safety checklist completed on the 21st December and results fed back to MM on 22nd December. The only issue of concern was out of date breast milk in the fridge. MM discussed this with ward staff at the ward safety brief. Housekeepers will ensure that dates on breast milk and feeds will be checked and any milk from discharged patients discarded when undertaking daily temperature checks.

DMT and local audits: IPCN had discussed DMT audits with Domestic supervisor and no issues had been raised. MM said local HH audits had been ok.

4. Further Infection Control Actions

Both isolates have been sent for typing

Ventilators and circuits: [REDACTED]

[REDACTED] Humidification is via sterile water. Ventilation blocks are either disposable or sent to CSSD between patients.

Location in unit. Patient 1 has been [REDACTED] while patient 2 has been in [REDACTED]. Both patients have been at different ends of the unit.

Physiotherapy: Both patients have had physiotherapy. CW asked that the processes used by physiotherapists, including PPE and procedure for BBAL be reviewed by IPCNs.

Equipment: It was unlikely that any equipment would have been shared between the two patients due to location in unit [REDACTED]. MM to check if feeding pumps have been shared. IPCNs to review cleaning procedure for laryngoscope blades and handles with MM.

CW asked if there had been any changes to antibiotic prescribing in the unit but MM and RL ensured group that the unit policy had been followed. CW commented that preliminary feedback on request for assurance that commissioning of the water supply to the unit was ok.

Washing patients: Every patient has their own basin for washing and disposable wipes. Older patients use their own toiletries.

Tape used for anchoring of ventilation tubing / NG tubing: All patients have their own roll of tape.

Intubation: each pod has its own resuscitation trolley.

CW asked that both patients remain in their current bed spaces with standard infection control precautions.

MM agreed to review the timeline for each patient to identify any common procedures undertaken prior to positive isolates.

5. HIIAT: GREEN
 - Patients stable – Minor
 - Service no impact – Minor
 - Public Health no impact – Minor
 - Public anxiety no impact - Minor

LR agreed that it was not necessary to complete a HAIORT at this time.

6. Date of next meeting: Possible meeting on 7th January or await typing results.

**Increase in Aspergillus Infections in Schiehallion Unit
RHC (QEUEH Campus)**



Incident Management Team (IMT)

Minutes of Meeting

10.00am

Friday 5 August 2016

Jamie Redfern's Office, RHC

PRESENT

Dr Teresa Inkster	Lead ICD, NHSGGC
Prof Brenda Gibson	Consultant Haematologist, RHC
Jean Kirkwood	SCN, Ward 2A, RHC
Jamie Redfern	General Manager, RHC
Kathleen Harvey-Wood	Clinical Scientist, Microbiology
Ian Powrie	Sector Estates Manager, South & Clyde Sector QEUEH
Angela Johnson	Senior ICN, South Glasgow (Paediatrics) IPCT, RHC

IN ATTENDANCE

Pauline Hamilton, PA Infection Prevention and Control (notes)

APOLOGIES

Sandra McNamee, Melanie Hutton, Alan Mathers, Kevin Hill, Jennifer Rodgers, Heather Dawes

Item	Action
<p>1. Welcome & Apologies</p> <p>Dr Teresa Inkster welcomed everyone to this first Incident Management Team (IMT) meeting to discuss <i>Aspergillus fumigatus</i> in the Schiehallion Unit in RHC (QEUEH Campus). Apologies were received from the abovementioned.</p>	
<p>2. Confirm Confidentiality</p> <p>The group confirmed confidentiality.</p>	
<p>3. Matters Arising</p> <p>There were no matters arising not included on the agenda.</p>	
<p>4. Situation Report</p> <p>4.1 Patients</p> <p>Dr Inkster explained that a Problem Assessment Group (PAG) was held on 04/08/16 and it was decided to escalate this to an IMT today. The two patient cases are both haematology patients and both acquired <i>Aspergillus</i> in the Schiehallion Unit.</p>	

A43255563

[REDACTED]

[REDACTED]

4.2 Environment

Ian Powrie provided background information in relation to the environment and issues pertaining to the BMT rooms, and reported that corrections have been made to a ventilation duct which had been torn. The tear was found between the solid metal ducts and the HEPA housing and it is believed was mostly likely due to a cut that opened when pressurised and then penetrated the membrane. This would not have been picked up on testing however other tests have since been carried out in this same room and 4 other breaches have been identified. To date, all ducts been now been sealed apart from one as this would affect the sprinkler system. The other rooms will need to be closed in order to carry out testing.

Jamie Redfern asked about routine processes for checking systems and also about condensation. Ian explained first of all that there is annual validation and annual verification as per original commissioning, and that pressure reports are issued and logged at time of testing. The annual validation is now due as the building is one-year old. Although the two patients discussed today are not in the BMT rooms the question was asked if there would be any impact on the rest of the unit for patients in adjacent rooms. Ian referred to the lobby and described positive pressure, i.e. if doors are left open then air could potentially push from the corridor into the room and could therefore be a possible factor for transmission. In terms of the two patient cases, this would be a possibility for the 2nd patient case only. Of note, it would be extremely difficult to look into timing around this and Dr Inkster explained that investigations started at the end of June 2016 but there may well have been an issue prior to this but as no air sampling programme was in place this could not be known.

In relation to the question about condensation and subsequent dampness, Ian explained how the chilled beams in the bedrooms operate, i.e. the discharge chamber draws fresh air in and then emits either heated or cooled air. Cooling can cause condensation when the moisture hits the chilled beam and there should be compensation for this but there is not. This has been raised with the contractor Brookfield. Once condensation notification was received on 19 and 20 July 2016 the rooms affected were cleaned and disinfected with quick turnaround. (Rooms 8 and 9 were cleaned on 19/07/16 and Rooms 7, 2, 10 were cleaned and disinfected on 20/07/16).

Item	Action
<p>It was noted there is an added complication of regenerated dust. Jean Kirkwood reported that there are still 4 rooms that need to be cleaned and disinfected. Ian confirmed that an HAI-SCRIBE is in progress to look at a full cleaning programme. Prof Gibson asked about filtration in the rest of the unit and Ian explained that the rooms are all filtered but they do not have HEPA filtration. It is not possible to add HEPA filtration at this stage due to the separate air handling unit and chilled beams as they are not the same specification. Ian agreed to look at the specification for the rest of the unit as the rooms should be slightly positive given the environment. Dr Inkster explained that Aspergillus spores travel wide and can be carried by dust. In light of this Jamie Redfern asked if both rooms that the two patients had been in, could be considered first, i.e. rooms 19 and 6. Ian explained there are no chilled beams in the corridor to these rooms however it was agreed that the issue with the chilled beams condensating needs to be addressed. Ian agreed to take a sample of the duct in the unit for testing and Dr Inkster stated that 2 types of samples will need to be taken; settle plates and active air sampling.</p>	IP
<p>Jean Kirkwood reported that the corridor seems to collect a lot of dust even straight after cleaning. In light of this information Dr Inkster suggested that cleaning is stepped up and Ian agreed to liaise with Sheila Miller and Billy Hunter and will request that twice daily Actichlor Plus cleans are put in place as recommended by IPC.</p>	IP
<p>Jean also reported that the heat and humidity in the unit is immense particularly at the nurses station which has 2 patient areas directly behind. Of note this heat issue has been repeatedly reported to Estates. Ian agreed to have this particular issue investigated.</p>	IP
<p>The 3rd potential environmental issue reported is in relation to a minor water leak in one area. Ian explained that a valve and tile had been removed to repair the leak and these were replaced with no other issues identified. It was not necessary to check the ceiling space. Dr Inkster will investigate the area.</p>	TI
<p>The 4th potential environmental issue is the ongoing construction works on the site. Of note, a method statement for dust control is all in order. Again translocation of spores was discussed however the area and wind might be a factor as well as people bringing in spores on clothing.</p>	
<p>5. Investigations</p> <p>From the information discussed the following investigations were agreed:</p> <ul style="list-style-type: none"> • Air sampling of air handling unit (Dr Inkster will organise) • Inspection of unit for water damage (Dr Inkster will investigate) • Chilled beams and sampling of duct in the unit for testing – Ian Powrie will arrange samples and will liaise with Dr Inkster) • Diagnostics to expedite reporting for ongoing surveillance (Dr Inkster will make request) • Upgrading of filters as close as possible to HEPA filtration (Ian Powrie to arrange) <p>Discussion followed around previous issues in relation to the BMT unit location and suitability. Dr Inkster explained that two options were proposed and the option chosen was yet to be endorsed by the Medical Director. It was agreed that all issues reported today are discussed in full at the meeting in relation to the isolation rooms. This meeting is still to be arranged by Alan Mathers.</p>	

Item	Action
<p>6. Additional Control Measures</p> <p>The following additional control measures were agreed today:</p> <ul style="list-style-type: none"> • Actichlor Plus twice daily cleans of unit (Ian Powrie will organise) • Prophylaxis (AmBisome recommendation) • Portable HEPA units to be placed in the unit (Ian Powrie will organise) • Cleaning of chilled beams (Ian Powrie will organise and liaise with Jean Kirkwood) <p>Prof Gibson reported that prophylaxis was discussed with pharmacy on 04/08/16 who are currently considering the cost implications and monitoring of patients for either AmBisome or Posaconazole. Of note, 8 or 10 children would be suitable for prophylaxis. Following discussion today it was agreed that AmBisome would be the preferred option as it can provide the broadest cover although does require more work. It was noted that transplant patients are not routinely screened and Dr Inkster and Kathleen Harvey-Wood agreed to meet after today's meeting to discuss and decide a screening regime for patients.</p> <p>Ian Powrie agreed to set up portable HEPA units sourced from various locations (Beatson and GRI) to support the environment.</p> <p>Jean Kirkwood confirmed that patients were moved out of the rooms on a rotational basis when the chilled beams were cleaned. Ian Powrie will organise the cleaning of the other chilled beams to take place this weekend (6/7 August) and will liaise with Jean.</p>	<p>TI/KHW</p> <p>IP</p> <p>IP</p>
<p>7. HIIAT / Watt Risk Matrix Classification</p> <p>The HPS HIIAT tool was tabled and following discussion it was agreed the situation is assessed as AMBER. Dr Inkster explained that this information is sent to HPS and the Scottish Government.</p> <p>The results of the pending case are awaited but once the results are back another meeting will be arranged.</p> <p>The investigation and additional control measures noted earlier should help minimise the risk of other cases.</p>	
<p>8. Communications</p> <p>8.1 Patients / Relatives</p> <p>Prof Gibson confirmed that patients / relatives have been informed. It was noted that the prophylaxing patients will need to be informed with IPC guidance.</p> <p>Ian Powrie asked about patients being admitted to PICU and if they would automatically go into isolation rooms. Dr Inkster explained that this would depend on the treatment plan as Aspergillus is not transmissible between patients, and that isolation would be for immunocompromised patients and not Aspergillus. Ian suggested that if the isolation rooms are used then it would be prudent to use the two identified with HEPA filtration but this can be extended if need be. Ian asked who Estates should liaise with within the unit. It was noted that Gael Rolls would be the best contact.</p>	

Item	Action
<p>8.2 Staff</p> <p>Jean Kirkwood confirmed that staff have been kept informed and will be updated on planned works and actions including prophylaxis.</p>	
<p>8.3 Press / External</p> <p>A press holding statement will be prepared in line with HIIAT requirement.</p>	
<p>9. Any Other Business</p> <p>There was no other business for discussion.</p>	
<p>10. Date and Time of Next Meeting</p> <p>Another meeting will be arranged once the results of the 2nd patient case are back.</p>	

Royal Hospital for Children

Minutes from meeting to discuss increase in *Serratia marcescens* in PICU

27th September 2016, 16.00, Meeting room1, PICU.

In attendance:

Susan Miller, SCN, PICU (SM)

Mandy Meechan, Lead Nurse, RHC (attending on behalf of Heather Dawes) (MM)

Gael Rolls, SCN, PICU (GR)

Alastair Turner, Consultant, PICU, (AT)

Teresa Inkster, Lead Infection Control Doctor, (Chair) (TI)

Pamela Joannidis, Nurse Consultant, IPC (minutes) (PJ)

Katy Anderson, IPCN (KA)

Apologies: Elaine Johnstone, lead Nurse PICU; Heather Dawes, CSM

1. TI welcomed those present to the meeting and reminded everyone that information discussed at today's meeting should be treated in the strictest confidence
2. Situation report:

Patients

TI provided an update on the patients currently in the unit .



Patient 4 [REDACTED]

All patients are currently being nursed with SICPs in two bed bays. PJ had asked for twice daily clean of these bays over the weekend. The unit had been very busy over the weekend with a number of RSV +ve patients and a cohort had to be created to manage this.

Environment

TI explained that SM is an environmental organism which particularly likes wet environments. It has been linked to a number of outbreaks in intensive care units and found in a number of sources. These would direct the investigations.

Equipment: TI asked if the 4 patients shared any specific equipment such as ultra sound scanner , ventilators, suction equipment , laryngoscope blades etc. GR explained that the 4 patients were [REDACTED]. SM and GR reported that the ECMO trolley could be excluded as this was not a link to all patients. Laryngoscope blades are disposable, suction equipment is single patient use, The unit has a blood gas analyser and this is maintained by laboratory staff. Cleaning schedules are in place for US and echo machines.

3. Investigations

Typing: all isolates will be sent for typing and results should be available in the next 2 weeks.

Antibiotic review: SM can be associated with antibiotic prescribing particularly Cephalosporins . TI will ask Kate Stock, AM pharmacist to review prescribing in the unit

Environmental screening: The IPCT will undertake environmental screening of a couple of bed bays and communal equipment to check for environmental sources

Water flushing programmes: GR confirmed that staff and domestic services ensure that all taps are flushed daily and a record kept. TI has asked estates to undertake water sampling pre- and post flush on sentinel points and taps in the rooms where positive cases have been. The unit has two water coolers in non clinical areas and these would also be sampled.

Cleaning of taps and sinks: GR confirmed that all CWHB sinks and taps were cleaned daily in the unit.

Chilled beams: TI asked if the unit had chill beams in the ceiling. PJ confirmed that this had been checked last month and there were no chill beams in the unit,

Shared staff: NICU has had an ongoing problem with SM this year. TI asked if NICU staff covered in PICU and GR confirmed this although it is uncommon.

Hand hygiene audits: Audits were routinely undertaken in PICU by staff and generally good. PJ will ask Stefan Morton HH coordinator to undertake HH in the unit.

IPCAT: the unit had recently had an IPC audit undertaken which was 93%. Also the SCN had undertaken their own SICPs audits with no concerns.

Procedure for undertaking blind bronchioalviolar lavage (BBAL) by physiotherapy. PJ had reviewed this recently with physiotherapy team and found no concerns but will do this again to identify any changes / issues.

Line care: care bundles were in use for patients with IV devices as part of the SPSP programme. No concern re compliance rates for insertion or maintenance

Breast Milk: [REDACTED]

Staffing levels: AT, GR, MM and SM agreed that staffing levels had been as low as 26 wte nursing staff down recently but that there had been a number of new recruits started this week. Staffing is down 18 wte for nursing staff.

Domestic services: GR, SM and MM were not clear if twice daily cleans were always achieved due to starting time of cleans. There was a reported shortage of mops recently. PJ agreed to arrange a walk round with Domestic services staff and MM to review the level of cleaning. Facilities staff would be invited to the next meeting.

Screening of other patients: TI asked for screening of all existing patients in the unit, excluding the 4 known cases. This would provide a base line for positive patients in the unit. Swabs requested include ET, throat, wounds, rectal / stool. Results should be ready by Friday.

4. Additional control measures

TI emphasised the importance of SICPs by all staff. TI asked AT to reiterate to medical staff. Once results of screening are known, it may be necessary to cohort those who are positive in one bed bay. PJ offered further IC training if considered necessary.

5. HIIAT - Green. TI explained that HPS require all HIIAT assessed incidents to be reported now. All those at Green would be reported on a Monday on a reporting template.

Patients: Minor

Service: Minor

Public Health: Minor

Public anxiety: Minor

6. Communications

Parents of patients known to be positive had either been told or would be told today. Nursing and medical staff would be informed via the safety brief and huddle. PJ offered information leaflet given to parents in NICU. GR and AT would consider this as required. TI reported that since the HIIAT was Green, it was not necessary to prepare a press statement at this time. PJ asked that ward staff ensure those HCW visiting the unit such as AHPs, are made aware of importance of SICPs

7. Date of next meeting : 04/10/16

PICU Incident Action plan

	Action required/agreed	Responsible person	Status	Comment
1.	All patients in unit (not new admissions) to be screened for SM.	AM, GR, AT	Complete	1 new case identified
2.	Water samples to be taken at agreed sinks in unit	TI	Complete	Results Outstanding
3.	HH audit to be undertaken by HHC	PJ	Completed 30/09/16	
4.	Review of cleaning with facilities team	PJ, MM and SL	Completed 29/09/16	
5.	HIIAT Green report to HPS	PJ	Completed 27/09/16	
6.	Typing: all isolated will be sent for typing	TI	Ongoing	
7.	Antibiotic usage review: TI will ask Kate Stock to review antibiotic use	TI	Requested	
8.	Review of BBal protocol	PJ	Completed 29/09/16	No concerns noted.
9.	Environmental screening	TI/PJ	Completed 28/09/16	No Serratia found

Royal Hospital for Children

Minutes from meeting to discuss increase in *Serratia marcescens* in PICU

4th October 2016, 9 am, Meeting room1, PICU.

In attendance:

Teresa Inkster, Lead Infection Control Doctor, (Chair) (TI)

Morag Campbell, Consultant Neonatologist, (MC)

Maureen Cairney, General Services Supervisor, (MCa)

Heather Dawes, Clinical Services Manager (HD)

Gael Rolls, SCN, PICU (GR)

Pamela Joannidis, Nurse Consultant, IPC (PJ)

Angela Johnson, Senior IPCN (AJ) minutes

Elaine Johnston, Lead Nurse PICU (EJ)

Eileen Milligan, Charge Nurse, PICU (EM)

Apologies: Katie Anderson, IPCN, Jamie Redfern, General Manager

1. TI welcomed those present to the meeting and reminded everyone that information discussed at today's meeting should be treated in the strictest confidence
2. Situation report:

Patients

PJ described the patient time line.

[Redacted text block]

Patient 4

[Redacted text block]

[Redacted text block]

[REDACTED]

[REDACTED] were in the same bed bay initially. [REDACTED] were in the same bed bay and then [REDACTED] have been in the same bed bay a number of times since. [REDACTED] was a known positive for SM and pseudomonas previously and also shared a bed bay with [REDACTED] before being screened. [REDACTED] shared a bed bay for less than 24 with [REDACTED] less than 24 hours. The typing will help to identify if there has been cross transmission between these cases.

3. Investigations

Typing: typing results are not yet available. Isolates from cases 5 and 6 have also been sent for typing to compare with the other cases.

4. Antibiotic review: TI reported that Kate Stock has been asked to review prescribing in the unit and a report is awaited.

Environmental screening: All environmental screens were negative for *Serratia* and *Pseudomonas* spp. Other organisms including *Acinetobacter lowffii* on telephones, a procedure trolley and weighing scales. Coagulase negative staphylococcus was found on intubation trolley, defibrillator trolley, the medicine cabinet, a paper towel dispenser and 1 sink. TI requested that the unit have daily clean with chlorine based detergent.

Water sampling:

Preliminary results indicate that there is no *Serratia* or *Pseudomonas* spp. in the water samples pre and post flush. However there have been other environmental gram negative organisms found pre-flush but not post flush. This would suggest that the taps are colonised with these organisms and may be a reflection of some of unit practice of washing patient equipment at the clinical hand wash sinks. At the time of environmental sampling, the IPCT observed regurgitation of a 'black scum' and a piece of green plastic. The plastic was identified by one of the SN who said it was part of a nebuliser. She also admitted that staff Wsh patient equipment in the hand wash sink. TI has asked estates to disinfect all taps in a programme of replacement. AJ has already agreed the HAI SCRIBE for this programme. It was agreed that all sinks will be cleaned twice per day with chlorine based detergent / Titan.

PJ noted that the trough sinks in the unit situated in the trolleys bays off each corridor were not used frequently and therefore could be classed as 'little used outlets'. The trough sinks were requested for surgical scrub for patients in the single rooms. On review, it would appear that the hand wash sinks in the ante rooms could be replaced with trough sinks, allowing the removal of the trough sinks in the trolley bays. This would also ensure that any risk of splashing from the trough sinks on to the trolleys stored in the trolley bays was removed.

PJ would liaise with Ian Powrie to review feasibility and HAI SCRIBE.

Hand hygiene audits: Stefan Morton HH coordinator had undertaken a HH audit in the unit on the 30/09/16. The score had been 100% for opportunities taken and 75% for combined opportunity and technique. GR stated that she had not been aware that hands must be wet

with AHR for a least 15 seconds and could not find this written in NHS GGC policy / NIPCM. PJ agreed to ask Stefan to offer training sessions for staff locally.

5. Procedure for undertaking blind bronchioalviolar lavage (BBAL) by physiotherapy. PJ and MM undertook a review of the BBal technique with the physiotherapy team on the 30/09/16 and found no concerns. All equipment is single use and disposable aprons and gloves are used and removed with each patient.

Staffing levels: No further concerns raised.

Domestic services: PJ reported that Sheenagh Leighton, Pat Coyne, Mandy Meechan and herself had walked round the unit on the 29/10/16. A number of issues were discussed including; the scrubbing machine out of use for last 2 weeks, concerns about the effectiveness of the current cleaning schedule and high level dust on the curtain rails and pendants. PJ raised concern about the effectiveness of the swiffer mop system as grit and dirt were visible on the floor immediately after the domestic had cleaned the floor. Sheenagh Leighton had reported that she would review training requirements with the unit domestic. HD asked that a meeting be set up with facilities, to review these issues and cleaning schedules for the unit.

Screening of other patients: TI reported that targeted screening of remaining patients in the unit had been undertaken following the first IMT and that 1 further case had been identified. This had been a rectal swab on a patient who had been previously in the NICU. It would be reported as an HAI for ward 1D.

6. HIIAT - Green. TI went through the existing HPS HIIAT tool.

Patients: Minor

Service: Minor

Public Health: Minor

Public anxiety: Minor

TI reminded everyone that this incident had been reported to HPS as part of the HIIAT Green report on 27/09/16. TI also explained that NHS GGC was one of 3 boards who had agreed to assess each incident with a new draft HIIAT tool. The assessment would have been Amber had it been used, as the risk of transmission with this organism was significant.

7. Communications

PJ agreed to provide the *Serratia marcescens* leaflet to GR and EJ for consideration. GR and EM Confirmed that updates were provided to the PICU staff at the safety briefs.

TI reported that preparation of a press statement was at the request and discretion of the chair of the IMT. At this time, TI felt that a draft statement was not necessary.

8. Date of next meeting : Another meeting will not be scheduled unless a new case is reported or the water sample results require further action.

PICU Incident Action plan

	Action required/agreed	Responsible person	Status	Comment
1.	All patients in unit (not new admissions) to be screened for SM.	AM, GR, AT	Completed	1 new case identified
2.	Water samples to be taken at agreed sinks in unit	TI	Completed	Results reviewed.
3.	HH audit to be undertaken by HHC	PJ	Completed 30/09/16	100% opportunity, 75% combined
4.	Review of cleaning with facilities team	PJ, MM and SL	Completed 29/09/16	No. of issues identified.
5.	HHAT Green report to HPS	PJ	Completed 27/09/16	
6.	Typing: all isolated will be sent for typing	TI	Ongoing	Results awaited
7.	Antibiotic usage review: TI will ask Kate Stock to review antibiotic use	TI	Requested	Report awaited
8.	Review of BBAI protocol	PJ	Completed 29/09/16	No concerns noted.
9.	Environmental screening	TI/PJ	Completed 28/09/16	No Serratia or Pseudomonas found
10.	Review of trough sinks in trolley bays	PJ/GR/EJ/HD/IP	<u>Ongoing</u>	
11.	Meeting of IPCT, clinical team and facilities to review cleaning schedules and issues identified from walk round	AJ, SL, GR, PC	<u>Complete</u>	
12.	Deep clean of unit to be arranged with external contractor	SL	<u>Completed</u>	
13.	SM leaflet to be provided to unit staff	PJ	<u>Complete</u>	
14.	HH training to be arranged and delivered to unit staff.	SM	<u>Dates planned</u>	
15.	Disinfection and replacement of all taps in the unit	IP	<u>Ongoing</u>	

**Increase in Fungal Infections in Ward 2A
RHC**



Incident Management Team (IMT)

Minutes of Meeting

1.00pm

Tuesday 7th March 2017

Seminar room level 2

PRESENT

Dr Teresa Inkster	Lead IPCD, NHSGGC
Susie Dodd	Lead IPCN for paediatrics, NHSGGC
Prof Brenda Gibson	Consultant Haematologist, RHC (Late arrival)
Jean Kirkwood	SCN, Ward 2A, RHC
Jamie Redfern	General Manager, RHC (Late arrival)
Kathleen Harvey-Wood	Clinical Scientist, Microbiology
Angela Howatt	SCN, Ward 2B, RHC
David Bratney	Site Estates Manager
Padmaja Polubothu	Microbiology Registrar

APOLOGIES

Alan Mathers, Jennifer Rodgers, Heather Dawes, Ian Powrie

Item	Action
<p>1. Welcome & Apologies</p> <p>Dr Teresa Inkster welcomed everyone to this Incident Management Team (IMT) meeting to discuss increased fungal infections in ward 2A RHC (QEUH Campus). Apologies were received from the abovementioned.</p>	
<p>2. Confirm Confidentiality</p> <p>The group confirmed confidentiality.</p>	
<p>3. Matters Arising</p> <p>As this was the first meeting there were no matters arising.</p>	
<p>4. Situation Report</p> <p>4.1 Patients</p> <p>Dr Inkster explained that a Problem Assessment Group (PAG) was held on 03/03/2017 where clinicians raised concerns about an increase in fungal pathogen infections within 2A, in particular Candida species. Two patients with possible Aspergillus had also been</p>	

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mentioned but results had been unavailable.

TI provided an update of 2 patient cases of invasive Candida infection.

[REDACTED]

[REDACTED]

TI presented the group with an SPC chart showing isolates of candida species on the unit since May 2015. This included blood cultures, respiratory samples, faeces and throats. It was agreed that rates were within stable limits for the department and the group agreed the rate was not a concern which required further discussion. It was agreed that the patients have risk factors for invasive candidaemias.

TI raised concerns regarding 3 Aspergillus fumigatus cases on the ward since July 2016 and as a result it was decided to escalate today's meeting from a PAG to an IMT. All 3 cases are HAIs to ward 2A, RHC. TI provided a handout detailing the 3 Aspergillus cases. Each were assessed using European Organisation for Research and Treatment of Cancer (EORTC) definitions applied to Aspergillus as probable cases. It was noted that growing Aspergillus from culture is very difficult to do and as a result none were laboratory confirmed. TI provided a summary of all 3 as per below which was supported by JK.

[REDACTED]

[REDACTED]

[REDACTED]

TI informed the group that colleagues at Lothian Board had reported an increase of Aspergillus cases amongst haematology population and further investigations suggested possible link between the chemo trial and the development of Aspergillus. The same chemo trial is in use in the 3 cases described above. BG stated that she had also seen this report but felt there was not enough evidence to support this however she would review the report again.

Item	Action
<p>4.2 Environment</p> <p>TI summarised actions put in place in August 2016 following 2 cases of Aspergillus and queried with JK and DB if these were still in place. The following was noted;</p> <ul style="list-style-type: none"> • Twice daily chlorine cleans instructed in August were now only once daily. • The portable hepa filter units used on ward 2A in August had been discontinued from use as they were generating high dust levels and were found to be dirty. • Hepafiltration on the ward was increased as much as possible in August 2016 and it was assumed that this remains the same. <p>TI pointed out that the air quality conditions in the old yorkhill site (Schehallion ward) and ward 2A currently were the same and that there was nothing could be done to improve the specification of ventilation on ward 2A. TI also contacted Lothian Board prior to the IMT to check the ventilation spec in use on their paediatric haematology ward and this was noted to be of lower spec than RHC. Although there are 8 BMT rooms available in ward 2A with a higher specification of ventilation, these are fully occupied by BMT patients which does not allow ALL patients to be nursed in these rooms.</p> <p>TI did however point out that there was a great deal of construction underway around the RHC site and DB provided an estimated date when demolition works are due to be completed. A method statement for dust control is all in order.</p> <p>No leaking points or water damage has been noted on ward 2A. JK had previously raised concern regarding cleanliness of the ward vents. DB will review this and ensure they have been cleaned adequately. If not, estates staff will be instructed to do so.</p>	
<p>5. Investigations</p> <p>It was noted that air sampling is already underway however results must be treated with caution as fungal counts are expected to be high whilst the specification of the ventilation is low.</p> <p>Water samples have to be obtained by DB. SD agreed to provide DB with a list of room locations occupied by the 3 Aspergillus cases to guide sampling on ward 2A. It was agreed that water sampling in day ward 2B would be random.</p> <p>DB will inspect the ward again to ensure there are no water leaks or condensation generated from the chilled beams.</p>	<p>DB</p>
Item	Action

6. Additional Control Measures

The following additional control measures were agreed today:

- TI suggested that patients wear facemasks whilst going outside the ward particularly when outside near construction sites. JK and BG agreed to promote this. **JK/BG**
- A discussion took place around suitability of prophylaxis for all ALL patients and it was agreed that prophylaxis would be given to these patients on induction of treatment. BG noted that there would be a cost implication associated with this. **BG**
- SD queried if all patients had been attending the nearby 'Click' charity building. It was noted that some but not all had attended. Discussions took place around possible construction works in close proximity to the Click building. SD and TI agreed to investigate this further. **SD/TI**

7. HIIAT / Watt Risk Matrix Classification

The HPS HIIAT tool was tabled and following discussion it was agreed the situation is assessed as RED as follows;

Severity of illness; Major (patient JR)
Impact on services; Minor
Risk of transmission; Moderate
Public Anxiety; Minor

TI explained the reporting process activated by a RED HIIAT.

8. Communications

8.1 Patients / Relatives

BG confirmed that patients / relatives have been informed and that no concerns had been raised. BG requested that moving forward, any prepared press statements refer to Aspergillus specifically and not fungal infections as this may cause unnecessary panic and anxiety amongst some parents.

Item

Action

8.2 Staff

Jean Kirkwood confirmed that staff have been kept informed and will be updated on planned works and actions including prophylaxis. No concerns have been raised by staff out with those discussed at this meeting.

8.3 Press / External

A press holding statement will be prepared in line with HIIAT requirement.

TI

9. Any Other Business

There was no other business for discussion.

10. Date and Time of Next Meeting

To be confirmed.

Incident Management Team Meeting

Increase Incidence of VRE/ Rota Virus - Ward 2A, RHC

Thursday 13th April 2017 at 2.00pm,

Level 2, SCH-093 Han Seminar Room, RHC

Present: Ash Deshpande, (AD) ICD/Consultant Microbiologist (Chair)
 Angela Johnson, Senior Infection Prevention and Control Nurse
 Angela Howat (AH), SCN
 Jamie Redfern (JR), General Manager
 Jean Kirkwood, SCN
 K Quinn, SSN
 Heather Dawes, CSM
 Mandy Meechan, Lead Nurse
 Kathleen Harvey-Wood – Principal Clinical Scientist
 Brenda Gibson, Consultant Haematologist
 Elaine Johnston, Lead Nurse
 Sharon Carlton (SC), Infection Prevention & Control Administrator (Minutes)

Dialled in tele conference: Lisa Ritchie, Nurse Consultant, HPS
 Claire Brown, Senior Infection Control Nurse, HPS

		ACTIONS
1.	Apologies	
	None noted.	
2.	Confirm confidentiality	
	AD reminded everyone that information discussed at today's meeting should be treated in the strictest confidence.	
3.	Matters Arising	
	AD explained the case definition and that there was a Problem Assessment Group (PAG) held on Wednesday 12 th April 2017. <ul style="list-style-type: none"> • Actichlor Plus twice daily clean should be carried out in ward over weekend. • Staff/Parents/Visitors should carry out hand washing with soap and water. • Restrict staff movements only between Ward 2A and Ward 2B. 	

4.	Situation Report	
	<p><u>Patients</u></p> <ul style="list-style-type: none"> • There are 4 patients with rotavirus, 2 patients are HAI. • Of the 4 patients with Rotavirus, 3 also have VRE • One other patient has VRE only • First confirmed case of Rotavirus was 27th March 2017. • Patients are all isolated. <p><u>Environment</u></p> <ul style="list-style-type: none"> • JK advised that deep cleaning is currently being carried out in the ward. • JK advised that all parents have been spoken to. • All communal areas, in the ward, have been closed. • SCN will ensure that all hand hygiene posters and door signs are displayed. <p>Under the current situation AD recommended to the group to act proactively to close the ward and review the situation in 48 hours. The group agreed that this decision should be raised at higher management level first.</p>	
5.	Investigations	
	<ul style="list-style-type: none"> • Advised to send any stool samples to virology. • Staff advised to use Bristol stool chart. 	
6.	Additional Control Measures	
	<ul style="list-style-type: none"> • Ward 2A closed to any new admissions, transfers in and out. • BG has spoken to colleagues in Edinburgh regarding referral of admissions. • Unwell, unscheduled admissions to be accommodated in an RHC ward other than 2A. • AD advised as there is staff and patient movement between Ward 2A and 2B, that a deep clean is carried out in both wards. • Movement of patients curtailed. Essential investigations only • SCN to ensure all hand hygiene posters and door signs are clearly displayed. • Continuation of twice daily cleans of the ward with a chlorine based detergent. 	
7.	HIIAT/Watt Risk Matrix Classification	
	<ul style="list-style-type: none"> • HIIAT – Red • Impact on Patients – Moderate • Impact on Services - Major 	

	<ul style="list-style-type: none"> • Impact on Public Health – Minor • Impact on Public Anxiety – Moderate 	
8.	Communications	
	<p><u>Patients/Relatives</u></p> <ul style="list-style-type: none"> • Restrict visiting to 2 adults at any one time. In addition to 2 parents or maximum of one additional person at any one time. • No sibling visitors or child visitors with immediate effect. • Restrict visiting hours for visitors other than parents/guardians to 1 hour in the afternoon and 1 hour in the evening. • Parent information sheet to be prepared by AD. <p><u>Staff</u></p> <ul style="list-style-type: none"> • Medical Director made aware of the situation by Chief Nurse • 1 Nursing Staff member on sick leave - symptomatic. • 1 Medical Staff member on sick leave – symptomatic. • Both on shift in recent days. <p><u>Press/External</u></p> <ul style="list-style-type: none"> • Revised press statement will be compiled and placed on hold at the present time. 	
9.	AOCB	
	<ul style="list-style-type: none"> • JK advised that there are currently staffing issues and a request has been made to bank/agency to help. • AD will communicate with nursing staff over weekend to review situation. 	
10.	Date & Time of Next Meeting	
	Monday 17 th April 2017.	

Minutes of 1st Meeting
Room 6, Level 2, Teaching and Learning Centre,
Queen Elizabeth University Hospital (G51 4TF)

Thursday 20 July 2017 at 2.30pm

PRESENT

Prof Brian Jones (Chair)	BJ	Head of Service Microbiology, NHSGGC
Tom Walsh	TW	Infection Control Manager, NHSGGC
Sandra McNamee	SMcN	Associate Nurse Director IPC, NHSGGC
Pamela Joannidis	PJ	Nurse Consultant Infection Prevention and Control, NHSGGC
Dr Jim McMenamin	JMcM	Consultant Epidemiologist in Public Health Medicine, HPS
Lisa Ritchie	LR	Nurse Consultant IC/HAI, HPS
Claire Brown	CB	Senior Nurse IPC, HPS
Dr Ian Laurenson	IL	Director Clinical Microbiology Scottish Mycobacteria Ref Lab
Dr Iain Kennedy	IK	Consultant Public Health Medicine, NHSGGC
Dr Christine Peters	CP	Consultant Microbiologist, NHSGGC
Dr Gordon MacGregor	GMac	CF Consultant (Adults) , NHSGGC
Dr Jane Wilkinson	JW	CF Associate Specialist (Paediatrics) , NHSGGC
Anne Harkness	AH	Director South Sector, NHSGGC
Dr Ash Deshpande	AD	ICD South Sector, NHSGGC
Lynn Pritchard	LP	Lead IPC Nurse (Adults), South Sector, NHSGGC
Jennifer Rodgers	JRod	Chief Nurse Paediatrics, NHSGGC
Cath McFarlane	CMcF	General Manager South Sector, NHSGGC
Dr Stephen Tomson	ST	CF Consultant (Adults) , NHSGGC
Dr Louise Thomson	LT	CF Consultant (Paediatrics) , NHSGGC
Jane Young	JY	CF Nurse (Adults) , NHSGGC
Linda Cassidy	LC	CF Nurse (Paediatrics) , NHSGGC
Lisa Morrison	LM	CF Physiotherapist (Adults) , NHSGGC
Elinor Johnson	EJ	CF Physiotherapist (Paediatrics) , NHSGGC
Mark Dell	MD	Press Office, NHSGGC
Paul Burns	PB	Lung Function Paediatrics
Andrew Morley	AM	Lung Function Paediatrics
Prof Andrew Smith	AS	Consultant Microbiologist, Chair GGC Decontamination Group
Pat Coyne	PC	Professional Lead Domestic, Facilities
David MacDonald	DMcD	Facilities Manager, QEUH

In Attendance

Pauline Hamilton (Minutes) PA, Infection Prevention and Control

Apologies Received

Susie Dodd, Lead ICN (Paediatrics)South Sector
 Dr Anne Devenny, CF Consultant (Paediatrics) , NHSGGC
 Dr Steve Bicknell, CF Consultant (Adults) , NHSGGC

Item	Action
<p>1. Welcome & Introductions</p> <p>Professor Brian Jones welcomed everyone to today's IMT meeting to discuss emerging information regarding the prevalence of <i>Mycobacterium abscessus</i> in the Cystic Fibrosis population and any requirement for additional IPC input. Round the table introductions were made and apologies were received from the abovementioned. Prof Jones reminded everyone of confidentiality and the need for accurate records.</p>	

Item	Action
<p>2. Appropriate Membership</p> <p>There was appropriate representation at today's meeting.</p>	
<p>3. Declarations of Conflict of Interest</p> <p>There were no declarations of conflict of interest noted.</p>	
<p>4. Items for Discussion not on the Agenda</p> <p>There were no items for discussion not included in the agenda.</p>	
<p>5. Incident / Background</p>	
<p>5.1 NHSGGC (Dr Christine Peters)</p>	
<p>Dr Peters provided some background detail and explained that a Problem Assessment Group (PAG) was held in June 2016 (not May 2016 as stated in the minutes of 16/06/17 distributed with the agenda) due to an increase in <i>M. abscessus</i> in the adult CF group. One main action from the PAG was to submit some current and historical isolates for whole genome sequencing (WGS) as it had been noted in the recent scientific literature, cross-transmission possibly via fomites may be contributing to the emergence of this particular micro-organism in this group of patients. Dr Peters thanked Prof Stephen Gillespie of St Andrews University who had agreed to carry out this work for NHSGGC.</p>	
<p>Dr Peters tabled summary data and graphs based on the information received from Prof Gillespie but acknowledged that not all of the data was available as some historical isolates had yet to be submitted for WGS so it was possible there were missing links. Dr Peters provided an overview and described the case definition used to determine cases. Since 2001 there have been 60 <i>M. abscessus</i> isolates from NHSGGC (CF and non-CF patients were included). The prevalence in the population of NHSGGC was similar or less than that reported globally. It was noted that since the actions agreed from the 2016 PAG had been put in place, there were no new clustered cases in NHSGGC.</p>	encl
<p>Dr Peters referred to the graphs (darker shade is paediatrics, lighter shade is adults) and stated it is important to note there are 3 sub-species and different types within the <i>M. abscessus</i> group. The graphs show peak in 2013-2014 however there are none for 2017 to date. Sandra McNamee commented that although 12 cases were noted in 2013 she was aware there were at least 8 different types in this cluster based on typing available at the time. Dr MacGregor commented that CF clinicians were not specifically testing for this particular organism prior to this time so that would influence the data presented. Dr Peters made reference to sub-species <i>M. abscessus abscessus</i> on page 4 which shows the highest peak in 2014. The graph shows amalgamated typing available, mostly from St Andrews University and some from typing from HPA, and Prof Floto's group provided by Dr Laurenson.</p>	

Item	Action
<p>In summary, the St Andrews data included whole genome sequencing of 61 isolates and Prof Gillespie concluded this was evidence of multiple introductions of different strains into the CF population and cross transmission on multiple occasions. Of note, there are different strain nomenclatures in use so that strain ST26 in previous papers has now been re-classified as ST29. The last clustered acquisition in the Glasgow cohort in April 2016 was linked to another centre. In October 2016 one case was epidemiologically linked to NHSGGC. Dr Peters had investigated this outlying cluster and noted that this type was not seen in the GGC cohort until a patient arrived already colonised from another centre. Two further patients became positive.</p> <p>Dr McMenemy stated this would appear to be an outlier, and a review of their epidemiology and pathway might yield some interesting information or contribute to the hypothesis of how this organism could be transmitted.</p> <p>The SNP difference column on page 5 show those cases closely related and when there are zero differences strongly suggests cross-transmission. Of note, anything below 20 SNP differences is currently considered probable and everything up to 50 is possible.</p>	
<p>5.2 NHS Scotland (Dr Ian Laurenson)</p>	
<p>Dr Laurenson explained that technology now allows for better testing and it is not known if cross-transmission of <i>M. abscessus</i> is particular to this group of patients. St Andrews University conducted WGS of 60-plus isolates and some of these strains are also found in non-CF patients. Some however were isolates from blood cultures and are therefore true infection rather than colonisation. Prof Jones asked Dr Laurenson if there was cross-infection in other CF Units in Scotland to which he replied he was not aware of any and that he was looking at the analysis of samples provided by Dr Peters only and therefore from one Board area. Dr Laurenson commented that at this juncture cross-transmission within NHSGGC based on this sample could not be ruled out. Of note, national surveillance is not currently carried out and the study was done retrospectively. The Reference Lab in Edinburgh is now referring new isolates from all over Scotland for WGS.</p>	
<p>Prof Jones asked about the Cambridge report on <i>M. abscessus</i> in CF patients which indicated that despite extensive environmental sampling, no source was identified. Dr Peters stated that she considered the environment to be a potential vector for this particular micro-organism and that this should be investigated further. Dr Peters reported there was some evidence from Hawaii that hydrogen peroxide vapour (HPV) may be effective in removing this organism from the environment however it was noted that this was used after a standard clean with chlorine had been undertaken and that the effect of each was not clear.</p>	
<p>6. Control Measures in Place</p>	
<p>Dr McMenemy stated there is an opportunity to discuss <i>M. abscessus</i> in CF patients with colleagues in Scotland and Public Health England (PHE) and possibly beyond and wanted to be clear what is currently emerging from investigations of clusters and WGS. Dr McMenemy added that with permission of the chair, he would be pleased to pass any information to national and international colleagues to take forward so that everyone can learn from each other. Prof Jones supported this request.</p>	<p>JMcM</p>

Item	Action
<p>6.1 NHSGGC (Pamela Joannidis)</p> <p>Pamela Joannidis reported that NHSGGC IPC and clinical staff who care for patients with CF developed two CF SOPs which were distributed with the agenda. It was confirmed that there had always been a priority for isolation policy and a key priorities document in place for this group of patients. The latest IPC SOPs were based on previous documents and were approved at a recent Board Infection Control Committee (BICC) after wide consultation. Both SOPs were currently being reviewed in light of information on this emerging pathogen.</p>	
<p>6.2 CF Clinic</p> <p>Dr MacGregor who was involved at the early stages of the PAG in 2016 reported that despite additional levels of care there were more cases of <i>M. abscessus</i>. Prof Jones stated that the current literature suggests that the likely source is fomites or heavy aerosols and added that since there is no evidence of further cases since 2016 it could be concluded that whatever actions and measures are in place they are having a positive effect.</p>	
<p>6.3 CF Guidance for Schools (Dr Jane Wilkinson / Dr Iain Kennedy)</p> <p>Dr Kennedy explained that Public Health were asked to look into providing CF Guidance for Schools and a short life working group was set up to consider this. Dr Kennedy pointed out that healthcare and school environments are very different places and there are many issues trying to limit the risks for CF patients, and to also maintain their confidentiality. Dr Kennedy described the challenges in providing guidance for schools and the necessity of various establishments to be involved to develop appropriate guidance, and it was thought this might be best done at national level rather than local. It was noted there was no patient representative on this group.</p>	
<p>6.4 Decontamination of Respiratory Equipment (Dr Ash Deshpande)</p> <p>Dr Deshpande described advice given about Percussionaire decontamination and explained that he had put out an interim SBAR in relation to this. Dr Deshpande explained there is ongoing work being progressed regarding decontamination advice for other items of respiratory equipment and he has a full list of these items. It is unclear however if all items have gone through national procurement. The preferred option would be to use single-use sterile devices between patients or some method of sterilisation however this would need to be looked into further. The question was asked if something could be done at national level in terms of decontamination of equipment especially respiratory equipment. HPS agreed to help produce national guidance for these complicated pieces of medical equipment and Lisa Ritchie reported that manufacturers are not providing clear guidance on decontamination. Dr Deshpande will provide Sandra McNamee with the list of equipment for HPS to take forward.</p> <p>Cont/...</p>	<p>LR / JMCM</p> <p>AD</p>

Item	Action
<p>HPV was mentioned for decontaminating larger areas such as gymnasiums however there could be potential damage to equipment using HPV and also the downtime required is at least 2 hours to accommodate the process. HPS will also look into the impact of using a chlorine based product for all equipment but noted this should be balanced against the cost of operating and the potential damage in using this type of product long term, not only to equipment but also the environment.</p>	LR
<p>7. Further Investigation / Actions</p>	
<ul style="list-style-type: none"> <p>Further Investigations: Prof Jones referred to the timeline and investigation of epidemiology of fomite related cross-transmission reported from Hawaii and asked if it would be a worthwhile task to do a look back exercise. Discussion followed and Anne Harkness pointed out that to look back at a couple of key cases could provide some useful intelligence going forward as Dr McMenamin had suggested. The group agreed that as cross-transmission had been established and in the absence of any significant scientific evidence of how or where this happened, an extensive look back exercise was not advisable at this time.</p> 	
<p>Prof Jones referred to a recent conversation with Prof John Coia Head of the Reference Lab in Glasgow that there is a European Public Health Microbiology Programme and that the current trainee could possibly assist in a research project relevant to today's meeting. Anne Harkness stated that epidemiologically this may be worthwhile researching further. Prof Jones agreed to take this forward with Dr McMenamin and relevant others.</p>	BJ / JMcM
<ul style="list-style-type: none"> <p>Additional IPC measures: The NHSGGC IPC CF SOPs distributed with the agenda have been forwarded to the NHSGGC ICDs for comment and Pamela Joannidis will collate all comments received and update as necessary. Dr McMenamin agreed to take forward discussions with colleagues across the UK however pointed out that after listening to information today it would seem that remedial actions proposed have proven effective. HPS agreed to take this forward and Lisa Ritchie added that HPS will also take forward concerns raised earlier about any impact of strong cleaning solutions used on equipment and HPS will also consider other technologies.</p> 	JMcM/ LR
<ul style="list-style-type: none"> <p>Review of Documents: Dr McGregor asked if the NHSGGC IPC CF SOPs could be shared with other centres. Pamela Joannidis asked that HPS approve any NHSGGC IPC CF SOPs before they are shared. Pamela will forward the approved SOPs to Lisa Ritchie.</p> 	PJ
<ul style="list-style-type: none"> <p>Other Groups: Tom Walsh asked if emerging pathogens need to be looked into further. It is believed the HPS Programme Board Group previously submitted a paper exploring <i>M. abscessus</i> and Pamela Joannidis agreed to forward this report to Lisa Ritchie.</p> 	PJ

Item	Action
<p>8. Healthcare Infection Incident Assessment Tool (HIIAT)</p> <p>The group agreed that as there have been no new cases for over a year, this is not a current incident and therefore not necessary to HIIAT today's meeting.</p>	
<p>9. Communications</p>	
<p>9.1 Advice to Patients/Screening</p> <p>Dr Wilkinson stated that despite reassurance that control measures are in place in NHSGGC there is current concern about cross-infection due to published retrospective data now in the public domain, although not patient specific. It was confirmed that patients are not routinely screened for <i>M. abscessus</i> however Dr Wilkinson explained that if a patient produces sputum this is sent to the microbiology laboratory immediately, and that sputum is induced at least once a year in line with NHSGGC policy. It was pointed out there is some debate around the time gap and whether screening should be stopped at annual review. This was suggested as a topic for the national group to consider as there were differences in opinions amongst CF consultants across Scotland.</p>	
<p>9.2 HPS / Scottish Government HAI Policy Unit (HIORT)</p> <p>HPS representative Lisa Ritchie suggested that <i>M. abscessus</i> in CF patients is taken to the HPS HAI Programme Board Group for discussion and if there is a national group to make them aware of the current debate.</p>	LR
<p>9.3 Press Office</p> <p>As there was no HIIAT applied the Press Office do not need to produce a holding statement.</p>	
<p>9.4 NHSGGC Board Directors</p> <p>Anne Harkness agreed to update the Medical Director after today's meeting.</p>	AH
<p>10. AOCB</p> <ul style="list-style-type: none"> • Dr Peters stated that Dr Steve Bicknell would like to be updated following today's meeting and Anne Harkness agreed to take this forward. • Dr Wilkinson asked that help is provided to produce information for patients. • Dr Peters noted that as National Services Scotland (NSS) supported the cost of WGS they should be informed of the results of the meeting. Anne Harkness agreed to take this forward on behalf of the CF Service and nominate someone to do this. 	AH AH

Item	Action
11. Action List with Timescale and Allocated Responsibility	
<ul style="list-style-type: none"> Prof Jones to consider sharing data with PHE via Dr McMenamin HPS. 	BJ
<ul style="list-style-type: none"> Sandra McNamee will forward the list of respiratory equipment to Lisa Ritchie for review. 	SMcN
<ul style="list-style-type: none"> Lisa Ritchie agreed to consider the impact of increased use of chlorine on equipment and to review information around HPV. 	LR
<ul style="list-style-type: none"> Dr McMenamin will look at selected <i>M. abscessus</i> cases with the clinical team especially those linked to another board area (patient cohort). 	JMcM
<ul style="list-style-type: none"> Prof Jones will explore the possibility of initiating a research project around the environment and population. 	BJ
<ul style="list-style-type: none"> Prof Jones and Dr McMenamin will discuss more extensive epidemiology. 	BJ / JMcM
<ul style="list-style-type: none"> Dr McMenamin will look at evidence base and what other UK areas currently have in place (possibly UK guidance). HPS will be included in this review as well as other technologies. 	JMcM
<ul style="list-style-type: none"> Pamela Joannidis will forward the updated versions of the two NHSGGC IPC CF SOP policy documents distributed with the agenda for HPS to share. 	PJ
<ul style="list-style-type: none"> Pamela Joannidis will forward the HAI Programme Board report on <i>M. abscessus</i> to Lisa Ritchie. 	PJ
<ul style="list-style-type: none"> Dr MacGregor will discuss isolation of adult CF patients with the General Manager. 	GMacG
<ul style="list-style-type: none"> HPS will discuss the proposed plan at the next HAI Programme Board meeting. 	LR/ JMcM
<ul style="list-style-type: none"> Anne Harkness will update the Medical Director Dr Jennifer Armstrong of today's discussion. 	AH
<ul style="list-style-type: none"> Anne Harkness will communicate NSD results via a nominated individual. 	AH
12. Date and Time of Next Meeting	
<p>No further meeting was arranged.</p>	

Minutes
Meeting Room 13, Ground Floor, Admin Block,
Queen Elizabeth University Hospital

Friday 22nd September 2017 at 3.00pm

PRESENT

Sandra McNamee (Chair)	SMcN	Associate Nurse Director IPC
Ann Kerr	AK	Lead Nurse Surveillance
Susie Dodd	SD	Lead ICN (Paediatrics)South Sector
Marjorie McCulloch	MMcC	Deputy Site Facilities Manager
Pat Coyne	PC	Facilities Manager
Lynn Pritchard	LP	Lead IPC Nurse (Adults), South Sector
Dr Gordon MacGregor	GMac	CF Consultant (Adults)
Andy Wilson	AW	Sector Estates Manager
John Tweedie	JT	Quality Assurance Manager, Facilities
Gillian McMillan	GMcM	Clinical Nurse Specialist, Cystic Fibrosis
Jill Leckie	JL	Deputy Charge Nurse, Ward 7D, QEUH
Isabel (Ippy) Brown	IB	Clinical Services Manager, General Medicine

In Attendance

Ann Lang (Minutes) PA, Infection Prevention and Control

Apologies Received

Dr Jane Wilkinson, CF Associate Specialist (Paediatrics)
 Dr Anne Devenny, CF Consultant (Paediatrics)
 Dr Christine Peters, Consultant Microbiologist
 Angela Johnson, Senior Infection Prevention & Control Nurse
 Melanie Hutton, Lead Nurse, RHC
 Judith Ross, Acting Senior Charge Nurse, Ward 7A

Item	Action
<p>1. Welcome & Introductions Sandra McNamee welcomed everyone to today's IMT meeting to discuss Exophiala in Cystic Fibrosis patients. Round the table introductions were made and apologies were received from the above mentioned.</p>	
<p>2. Appropriate Membership There was appropriate representation at today's meeting.</p>	
<p>3. Incident Update</p> <ul style="list-style-type: none"> ● Microbiology Report Sandra McNamee provided some background details and said that Dr Peters, Consultant Microbiologist referred samples taken from dishwashers in QEUH. She said that Dr Peters had reported that over the last 11 months there has been an increase in the number of patients who had this organism isolated from clinical samples, with a peak identified in August. Sandra McNamee commented that Exophiala is not an organism referred to Infection Prevention and Control team for ongoing surveillance and that this information can come directly from microbiology. 	

Item	Action
<p>Ann Kerr provided an SPC chart and a list of patients that were affected which was distributed with the agenda. It was noted that this was composed of retrospective data so should be viewed with some caution.</p>	
<ul style="list-style-type: none"> • Initial Review of Machines <ul style="list-style-type: none"> <u>Adult</u> <p>Lynn Pritchard updated that she has spoken to the wards and the dishwashers are no longer in use until they have been checked. An engineer reviewed two of the dishwashers and the following issues were identified:-</p> <ul style="list-style-type: none"> • Found to have 2 rinse aid containers in use rather than one rinse and one detergent. • Bottom filter found to have build up of residue • Found to have correct containers fitted but hoses supplying machine from containers were wrong way round. ie rinse aid hose was in detergent and detergent hose was in rinse aid. • In addition detergent container found to be crystallising in bottom of container resulting in uptake into hoses and on into machine. Hose intake usually sits at bottom of container. 	
<p>She said the core kitchens are happy to wash jugs and crockery and patients have been provided with bottled water until the machines have been checked.</p>	
<p><u>Paediatrics</u></p> <p>Susie Dodd updated with regards to Paediatrics to say that not all the dishwashers are in use in the CF wards. She also checked the high risk areas and there are no dishwashers in these areas and bottled water is also being provided for CF patients. Susie confirmed that David Bratney, Site Facilities Manager will ask a representative to look at the dishwashers in Paediatrics.</p>	
<p>Discussion took place on whose responsibility it should be to clean the dishwashers. John Tweedie advised that catering service will take this forward and arrange a cleaning schedule. As catering service do not hold a budget for this he asked who would supply the detergent for cleaning. It was agreed that Facilities will contact Procurement regarding this and arrange for a code for nursing staff to order these. John Tweedie confirmed that RAH and GGH do not have any dishwashers in the wards. Marjorie McCulloch stated that Environmental Health Officers prefer dishwashers to sinks for cleaning and suggested asking Hobart (who are the manufacturers) to come in to check all the machines. Once a standard has been agreed she recommended that we only use these to clean water jugs only and not crockery used by clinical staff.</p>	<p>JT</p> <p>MMcC /PC</p>
<p>Dr Gordon MacGregor commented that he raised concern about this last September and Andy Wilson asked if this was raised on FM First.</p>	
<p>Sandra McNamee asked if these cases were infections or colonisation. Dr MacGregor replied that there are 19 cases in total with one an outpatient case and all others are inpatients. Sandra proposed to take the actions mentioned above, regarding servicing of the machines, cleaning schedule etc and then resample the machines. In the meantime the patients should be provided with bottled water.</p>	

Item	Action
<p>4. Agree Actions (dishwashers)</p> <ul style="list-style-type: none"> • Catering service to carry out the cleaning of the dishwashers and arrange a cleaning cycle. • Facilities to contact Procurement to arrange a code for nursing staff to order detergent. • Facilities to contact manufacturer and agree a servicing appointment for all machines. • Dishwashers would be re-sampled when the above is complete. Marjorie McCulloch would let IPCT know when this could go ahead. 	
<p>5. Further Issues</p> <ul style="list-style-type: none"> • OPD When patients are attending OPD Sandra McNamee asked if there are dishwashers in these areas and John Tweedie agreed to check this. • Cleaning Of the 19 patient cases Dr MacGregor reported that 41% of these have micro bacterial abscesses and patients seem to be obtaining multiple bugs. He raised concern regarding the standard of cleanliness of the environment at QEUH. He said the floors appear to have visible dirt and suggested that the cleaning should be reviewed. Sandra McNamee recommended that these wards are put on chlorine cleans and it was agreed that actichlor will be used on the 7th floor and in clinics G and H in the Outpatient Department. Dr MacGregor asked if there was a policy on how often a ward should be cleaned and Pat Coyne replied that a deep clean is carried out when a patient is discharged and corridors are scrubbed once a week. • Ventilation The vents were also discussed and Sandra McNamee recommended that these are checked and cleaned. Dr MacGregor stated that there is no movement of air in these wards and the temperature gauge does not work. It was agreed to put these wards on rotation of cleaning of vents and Andy Wilson to send Sandra McNamee information on the frequency of cleaning the vents. Andy Wilson advised that domestic staff clean the vents and Estates clean the chill beams. Andy agreed to review the vents in this area. 	<p>JT</p> <p>Agreed</p> <p>AW</p> <p>AW</p>
<p>6. Healthcare Infection Incident Assessment Tool (HIIAT) Currently NHS Boards are required to report all HIIAT assessed incidents to HPS. Sandra McNamee discussed the reporting tool with the group and a conversation took place to agree a score of Amber for the incident.*</p>	
<p>7. Review of all agreed actions</p> <ul style="list-style-type: none"> • Catering service to carry out the cleaning of the dishwashers and arrange a cleaning cycle. • Facilities to contact Procurement to arrange a code for nursing staff to order detergent. • John Tweedie to check the dishwashers in OPDs. • Wards to be put on chlorine cleans on the 7th Floor and in clinics G and H in the Outpatient Department. 	

Item	Action
<ul style="list-style-type: none"> • Andy Wilson to send Sandra McNamee information on the frequency of cleaning the vents and to review and confirm they are working as expected. • Sandra McNamee to prepare a holding statement for the Press Office and to forward this to Dr MacGregor and Susan Groom for comments. • Dr MacGregor to update the patient list and return to Ann Kerr. • Andy Wilson to look at the panels for the temperature in these wards and to check the functionality of these. • Lynn Pritchard to forward Andy Wilson information from David Bratney when this was first reported. Andy Wilson to check if this was escalated via FM First. 	
8. Communications	
a) HPS / SG HAI Policy Unit (HIIORT)	
As a HIIAT was agreed a HIIORT will be sent to HPS / SG HAI Policy Unit.	
b) Internally NHSGGC	
Directors will be notified internally of this via the Wednesday report from Infection Prevention & Control.	
c) Press Office	
Sandra McNamee advised that a holding press statement be prepared which she will complete and will forward this to Dr MacGregor and Susan Groom for comments.	SMcN
d) Patients and Staff	
Dr MacGregor confirmed this will be discussed at the Adult Team Meeting on Wednesday and no patients have been spoken to at the moment.	
9. A.O.B.	
Ann Kerr asked Dr MacGregor if he could update the patients on the excel list that was issued and return to her.	GMcG
Marjorie McCulloch asked to ensure that patient doors are closed.	
Dr MacGregor advised that the panels for the temperature do not work and asked if Estates/Facilities can check the temperature and the functionality of these. Andy Wilson agreed to look into this.	AW
Lynn Pritchard reported that she has information from David Bratney on when this was first reported and will forward this to Andy Wilson. Andy Wilson said that he will check if this was escalated via FM First.	AW
10. Date and Time of Next Meeting	
It was agreed to organise a follow up meeting in a couple of week's time when typing results and more information from the manufacturer may be available.	

*HIIORT submitted to HPS and after discussion regarding emerging organisms and lack of information on mode of spread and incubation period GGC was advised to downgrade this incident to GREEN and report it via the Monday HIIAT report. In response to this advice a holding press statement was not prepared.

**Incident Management meeting
Water contamination ward 2A
Friday 2nd March 2018**

Present: Dr T Inkster (Chair), Dr A Mathers, J Rodgers , Dr B Gibson ,Dr K Valyraki , Dr H Soulsby, P Friel, A Johnston, A Mcdaid, E Somerville, S Johnstone, T Romeo, Dr E Chalmers

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Background

Patient on ward 2A had Cupriavidus bacteraemia at end of January 2018. In February 2016 routine water testing of the aseptic pharmacy had revealed the presence of this organism. One patient at the time [REDACTED] had Cupriavidus in a blood culture – typing revealed patient and water strains to be the source. Therefore the initial investigation of the Jan 2018 case focused on the aseptic unit but the water supply on this occasion tested negative. Outlets on 2A were sampled and tested positive.

One patient with Pseudomonas aeruginosa bacteraemia this week – [REDACTED]. One outlet on 2A has tested positive for Pseudomonas aeruginosa.

One patient on the ward is being assessed for [REDACTED] Gram negative sepsis.

Investigations

2A outlets – treatment room, prep room and rooms 3,15,16,and 26 have tested positive for Cupriavidus. One outlet in room 3 has tested positive for Pseudomonas aeruginosa

Main supply tanks have tested negative

Aseptic pharmacy negative. Recent PICU testing negative

Taps and showerheads have been removed and components will be swabbed and tested.

Typing of patient and water isolates will be performed

Hypothesis is that outlets are the source and that seeding of others has taken place. Flow straighteners which encourage biofilm formation are known to be high risk and have been implicated in outbreaks previously.

Actions

Control Measures

Due to number of outlets positive and high risk patients no further sampling will take place and we will proceed to dosing straight away.

Water to be dosed with Silver Hydrogen peroxide (Sanosil) in two phases – recommended that both take place today

Water supply to the ward will be down for 4 hours

Outlets will be replaced starting with those that have tested positive but recommendation is all are changed

Showers have been placed out of use for patients
Hand hygiene can take place followed by alcohol gel
Bottled water for washing and tooth brushing
Sterile water for drinking

During the 4 hour dosing period hand hygiene stations will be set up on the ward – Angela Johnson will work with ward staff to put these in place.

Once dosing complete all outlets can be used. Resampling will take place.

HIIAT Assessment

The group agreed that the HIIAT is Red . (Patients – minor, Service-moderate, Transmission – major, Anxiety – minor)

Communication

Reported to HPS, SGHD and Senior management

TI and JR will create patient and staff information

Draft press lines

A further meeting will be arranged next week where preventative measures will be discussed.

**Incident Management meeting
Water contamination ward 2A
Tuesday 6th March 2018 @ 2pm**

Present:

Dr T Inkster (Chair) – Lead Infection Control consultant, GGC
 Prof B Gibson – Haemato-oncology consultant
 Dr D Murphy – Oncology consultant
 M Hutton – Lead Nurse, ward 2A
 J.Boyd – Nurse in charge, ward 2A
 A Johnson – Senior Infection Prevention and Control nurse
 S.Dodd – Lead Infection Prevention and Control nurse
 I.Powrie – Deputy facilities manager, south sector
 T.Romeo – Estates manager

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of last meeting

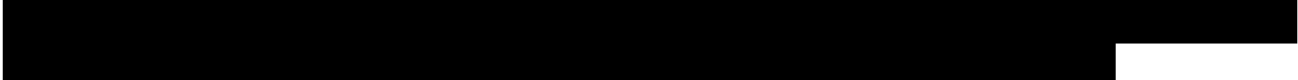
Under investigations, point 4, the IMT requested that it was clear not all taps and showerheads were removed and specifically state which ones were – change made.

Under control measure, point 1, the IMT requested that it be noted that not all rooms were tested and that some had in fact not been tested – change made.

Under control measures, last point, the IMT added that all previously positive sites will be tested as well as a random selection of other outlets on ward 2A – addition made.

Incident update

Patient Report

- 
- TI presented data detailing the number of Cupriavadis isolates in RHC in the last 12 months of which there have been 2, 1 in September 2017 and 1 in Jan/Feb 2018. It was noted there had been a case in 2016 (not a 2A patient) linked to the aseptic pharmacy. The September case has been sent for typing. Notification of the case in January led to further investigations in 2A as this could be linked to the ward.
- TI presented data detailing the number of Sphingomonas isolates in the last 12 months of which there has been one in May 2017 and this was not in a 2A patient. TI informed the group that the reason this data was presented was due to the growth of Sphingomonas from a tap removed from ward 2A for microbiological analysis. TI stated she would discuss this in more detail later in the agenda.

Water Reports

- The water reports were shown to the group detailing the outlets which had been sampled and those which were positive. SD informed the group that the rooms selected for testing

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were those which had been occupied by the September and January case of Cupriavadis whilst inpatients. ID provided clarity around pre and post sampling for the group;

Sampling is carried out under instruction of the ICD in accordance with the HPS

Guidance to minimise the risk of *Pseudomonas aeruginosa* infection from water. A **pre-flush** sample is taken from the tap/outlet when the tap or outlet has not been used for at least 2 hours. The tap is then run for 2 minutes and a second identical **post-flush** sample taken. Note of correction from IP: post-flush time should be 1 minute under the protocol.

Microbiological Report

- The IMT were reminded that multiple water samples from ward 2A were positive for Cupriavadis and one water sample had also grown Pseudomonas. All isolates have been sent for typing.
- TI informed the group of the findings from the microbiological sampling carried out on the tap and showerhead removed from the ward last week. To date, Cupriavadis, Sphingomonas and fungi have been grown. Cupriavidus is growing from the hot tap and the flow straightener, other components are still being investigated. Full ID is still awaited on the fungi which was grown from a showerhead in Room 15.
- BG and DM expressed concern that not only had patients had clinical infections due to Cupriavadis and pseudomonas, there had also been an incident relating to Aspergillus infection last year. BG and DM queried whether the Aspergillus cases may have been acquired as a result of fungi in the outlets. TI explained that it was impossible to answer this at present as the fungi was yet to be identified however the finding of fungi is of concern and if indeed it is identified as being Aspergillus, further investigations would take place. It was agreed to sample further showerheads and water for fungus.
- DM noted that the organisms found in the water and outlets are environmental ones often associated with building works and queried if the patients on ward 2A are at risk from their surrounding environment. TI explained that the literature does not point towards Cupriavadis being associated with building works. It is known to colonise water systems and outbreaks have been linked to dialysis water and ECMO machines. TI also noted that Cupriavadis would not have been tested for routinely and that advancements in laboratory testing methods now enable identification of this organism.
- BG and DM queried if the concerns of the clinical teams relating to the environmental risks in 2A had been communicated higher. TI explained that she shares these concerns and had indeed reported these to the highest level in GGC and HPS over 2 years ago. DM and BG felt dissatisfied that there had been any response from senior management or out with GGC which offered reassurance to clinicians. TI encouraged clinicians to share their concerns with senior management again and reported that this incident has been reported to Health Protection Scotland who in turn have reported it to the Scottish Government. DM/BG were concerned that senior management and the board were made aware of the serious implications of fungus as well as Gram Negative bacteria being present in the water system. Both of these are life threatening to immunocompromised. Contamination with two organisms of a completely different species raises concerns of major infrastructure problems.

Control Measures

Current

- IP explained that only part of the water system has been dosed due to a valve being broken during the process of dosing on 2/3/18. As a result, the remaining part of the water system will be dosed this week.
- IP reported that disposable colour coded shower heads will be introduced to ward 2A.

- All taps are to be removed from patient rooms, flow straighteners changed and sanitised. Discussion took place around the precautions required by workmen when entering patient rooms to change the taps. Post meeting: SD and IP met with the DMA workmen and described the precautions required in these patient rooms.
- More showerheads will be removed for microbiological testing.

Future preventative

- Routine testing of the water outlets will now take place monthly rather than 6 monthly.
- Cupriavidis and Sphingomonas have been added to the IPC alert organism software system. This is now active for the whole RHC site.

Hypothesis

The source is the outlet themselves, confirmed by microbiological testing of the taps and showers and negative samples from the water tanks. The most likely mechanism is via contact. Discussion took place around the possibility of contact from domestic staff and parents.

HIIAT Assessment

Severity of illness – minor

Impact on services – minor

Risk of transmission – major

Public anxiety - minor

The above assessment classifies the HIIAT as red. The IMT were in agreement with this.

Communication

Patients

- JB reported that parents continue to ask questions regarding the water issues due to the continued presence of the estates workers in the ward. TI advised JB that staff continue to inform patients that ongoing treatment of the water system is in place and the current works are part of that process.
- DM queried if there was any activity on social media amongst parents. JB reported that there was none that she was aware of.

Staff

- There were no further queries from ward staff. The minutes of the IMT and associated actions will continue to be reported to the IPC SMT and clinical SMT. The HIORT will be reported to HPS and Scottish Government.

Public

- As per previous IMT, a press holding statement has been prepared.

AOCB

JB updated the group that the plumbed in water cooler for staff use only, is awaiting a change of filter, and a routine maintenance visit by the company before being brought back into use.

Date at time of next meeting

Friday 9th March, 2018. 2-3pm

Seminar room, 2nd floor, RHC.

**Incident Management Meeting
Water Incident, Ward 2A, RHC
9th March 2018**

Present: Dr Teresa Inkster (TI), Susie Dodd (SD), Lynne Kennea (LK), Thomas Romeo (TR), Jonathan Barton (JB), Emma Somerville (ES), Jen Rodgers (JR), Ian Powrie (IP) Melanie Hutton (MH), Angela Howat (AH) Prof Brenda Gibson (BG), Dr Alan Mathers (AM,) Calum MacLeod (minutes)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

The minutes of the last IMT meeting held on 6th March 2018 were accepted.

Incident Update

Dr Brenda Gibson informed the group that no patients within Ward 2A were giving her cause for concern. [REDACTED]

TI reported visual inspection of the thermostatic mixing valve component showed green pigmentation in keeping with bacterial growth. Laboratory results are awaited.

Investigations

Sampling of water taps from ward 2A is ongoing and results from completed sampling are awaited. Thomas Romeo is going to contact Microbiology to request that Fungal testing is carried out on water samples also.

Dr Inkster brought along a dismantled tap to show the group the amount of components within the tap and highlight the problematic sections of the tap. Ian Powrie informed the group that all TMV thermostat mixing taps have multiple components in them with complex structures making it easy for microorganisms to grow.

Dr Inkster informed the group that an SBAR from 2014 advised against installing these taps with flow straighteners into high risk areas. Ian Powrie informed the group that the board had already agreed to install the taps before the SBAR came out from HPS. Following the SBAR being issued, the board felt that the cost implications of changing all the taps were impractical and would delay the delivery date for the project. Dr Inkster is going to review the advice given within the SBAR in relation to high risk areas.

Dr Mathers asked the group if the plumbing system could sustain an old fashion hot and cold mixing tap. Ian Powrie informed Dr Mathers that there is still a thermostatic mixing valve located not in the tap but further up the system which would make maintenance/sanitisation of the water system much harder to maintain. TI stated TMVs would be required due to risk of scalding but should be regularly maintained but recommended the taps without flow straighteners are installed

Actions

Jen Rodgers asked if facilities could contact Health boards with similar high risk wards and see what taps they use. TI added that there would be value in contacting Ireland following an outbreak of pseudomonas in a NICU.

In the interim once all taps have been taken out and replaced with a sanitised tap, a chemical disinfection of the system will be carried out. Monthly testing of the taps will be undertaken.

Control Measures

Angela Johnson has been in contact with Domestics throughout Ward 2A regarding the cleaning of the sinks after the taps have been replaced and is satisfied with their procedure. The IPCT will keep continue to observe the domestic cleaning throughout the ward.

HIIAT Assessment

The group agreed that the HIIAT is Red.

The IPCT will update Health Protection Scotland of the incident and the HIIAT score.

Communication

Patients/Parents

Parents have raised their concerns regarding the turning off of water when the taps are being replaced. Emma Somerville is going to speak to the concerned parents regarding this. The group advised Emma that she should state that we have established a problem with the taps which is currently being rectified. Patients and parents should still use bottled water for drinking and washing of hands.

Public

As per previous IMT, a press holding statement has been prepared

Confirmed Action Plan

Look at possible replacements of taps and see how facilities would go about replacing them with minimum disruption to service.

IP/TI

Ask Mary Ann Kane (Director of Facilities) about replacing all taps within Ward 2A, then continue to roll out across all high risk areas within RHC.

IP/TI

Take sample of water dispensers for testing. If the water dispenser has been sanitised then you will not need to test and it can be put back into use.

IP

All shower heads are being sent away for testing and being replaced next week in Ward 2A. Ian Powrie informed the group that shower heads will be replaced every quarter with Ward 2A.

IP

Ongoing replacement of taps being taken out and replaced with a tap that has been sanitised. Once all taps have been replaced then a full chemical disinfectant

IP

The group agreed to meet next week, time and date of meeting will be confirmed.

**Incident Management Meeting
Water Incident, Ward 2A, RHC
12th March 2018**

Present: Dr Teresa Inkster (TI), Emma Somerville (ES), Melanie Hutton (MH), Jamie Redfern (JR), Jenn Rodgers (JR), Dr Dermot Murphy (DMJ), Dr Jennifer Armstrong (JA), Alan Gallacher (AG), Angela Howat (AH), Mary Ann Kane (MAK), Karen Connelly (KC), Susie Dodd (SD), Lorraine Dick (LD), Morag Jones (MJ), Prof Brenda Gibson (BG), Phyllis Urquhart (PU), Colin Purdon (CP), Paul McAllister (PM) Calum MacLeod (minutes)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

If anyone has any comments from the minutes of the last IMT meeting held on 9th March 2018 can you please email them onto Dr Inkster.

Incident Update

Microbiology results from the testing of the taps in Ward 2A, RHC came back from the labs on the evening Friday 9th March. Multiple positive results for *Cupriavidus* and two of the samples came back with *Stenotrophomonas* which is a significant pathogen particularly within this patient group in Ward 2A.

Dr Inkster informed the group that the results are from taps which have not been replaced in Room 15 and 26. Testing from the main water tanks have come back clear.

Dr Inkster also informed the group that a shower head from room 12 has given two +ve samples for *Stenotrophomonas*.

Prof Brenda Gibson informed the group that currently none of the patients are giving her cause for concern but raised her concerns that the pathogens found from the samples taken from the taps/shower heads are potentially lethal organisms to immune suppressed patients within Ward 2A. She raise her concerns surrounding the safety of the patients who are already in the rooms where positive organisms have come back. Also the inconvenience to the patients who some have not been able to wash themselves since last Thursday. Dr Inkster agreed about the inconvenience this is causing to patients and advised that we can deliver a safe source of water. Dr Inkster confirmed that we cannot decant patients to other wards as the water outlets have not been tested yet.

Dr Inkster thinks that the organism is being transmitted by human touch and not the water supply but is unsure how it is getting from outlet to outlet especially from sink to shower head.

Actions

Investigations

All positive isolates are being sent away to Collindale for typing which can take up to 2 weeks for the results to come back.

Control Measures

Due to the number of positive results which came back emergency measures were put in place on Friday evening which include the following:-

- all showers out of use for patients
- Sterile water for drinking
- Bottled water for washing and bathing
- For younger patients wipes will be provided for washing

Disposable shower heads will be installed this evening with all the current shower heads being taken over to the labs to be tested.

The current replacement of the taps which is currently being undertaken involves sanitising the tap, rebuild it with a new thermostatic valve and water straightener is ongoing and increased man power will be focussed on this. At least 20 of the taps will be disinfected and replaced by Wednesday then will be re-swabbed once a silver hydrogen peroxide treatment of the system is completed. It takes 48 hours for Microbiology to grow anything from the samples so the taps will be out of use until Friday.

In the interim 22 mobile wash hand basins will be delivered to the RHC tonight at 10pm to be used as an alternative. These are stand alone units which have their own heated water supply. Due to the time of the delivery of the mobile wash hand basins it was agreed that they will not be put into patient rooms until the morning. The wash hand basins will be prepped and ready use once tomorrow morning comes. The group agreed that water can be decanted into wash hand basins for parents.

Dr Inkster advised that parents can still use the showers in the interim as the risk of spreading any pathogen to their child is very unlikely.

Jennifer Armstrong get people overnight to get shower heads fitted tonight and maybe get shower heads to the lab tonight for testing Get this accelerated as quickly as possible.

HIIAT Assessment

The group agreed that the HIIAT is RED.

The IPCT will update Health Protection Scotland of the incident and the HIIAT score.

Communication

Patients/Parents

Emma Somerville and Prof Brenda Gibson have updated all the families/patients on Friday night.

Press

Dr Inkster, Jamie Redfern and Jenn Rodgers will adapt a pre written press statement. This statement should mirror what Professor Brenda Gibson and Emma Somerville have already informed patients/parents.

AOCB

Dr Inkster will meet up with Prof Brenda Gibson, Jamie Redfern and Jenn Rodgers to draw up a contingency plan if positive results come back from the replacement taps/shower heads after they have been refitted and chemical dosing complete.

Confirmed Action Plan

Alan Gallagher will pull together a detailed plan outlining the situation of each tap and shower head within Ward 2A.

All the shower heads will be taken to Microbiology for testing.

Portable Clinical Hand Wash Basins will be put in each room by tomorrow morning (13th March 2018)

Once all taps have been replaced then a full chemical disinfectant will be carried out and re-testing of the taps will commence.

The earliest time the Clinical Wash Hand Basins can be used again will be Friday as it takes at least 48 hours for Microbiology to grow anything from the samples taken.

The group agreed to meet at the end of this week, time and date of meeting will be confirmed.

AG

**Incident Management Meeting
Water Incident, Ward 2A, RHC
16th March 2018**

Present: Dr Teresa Inkster (TI), Pamela Joannidis (PJ), Lynne Kennea (LK), John Mallon (JM) Jenn Rodgers (JR), Prof Brenda Gibson (BG), Dr Jennifer Armstrong (JA) Mary Anne Kane (MAK), Ian Powrie (IP), Karen Connelly (KC), Dr Alan Mathers (AM), Dr Dermot Murphy (DM), Melanie Hutton (MH), Angela Howat (AH), Dr Iain Kennedy (IK), mark dell (MD), Annette Rankin (AR), Jamie Redfern (JR), Colin Purdon (CP), April McDade (AM), Calum MacLeod (minutes)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

If anyone has any comments from the minutes of the last IMT meeting held on 12th March 2018 can you please email them onto Dr Inkster.

Incident Update

Dr Inkster gave a full summary update of the incident so far for new members of the IMT.

Patients

In the last 24 hours there has been 3 additional hospital acquired bacteraemia cases.

Patient who has been in ward 2A [REDACTED] has a positive blood culture of Stenotrophomonas. [REDACTED]

Patient who had been in ward 2A [REDACTED] into Ward 2B [REDACTED]. Positive blood culture for pseudomonas and Stenotrophomonas.

Patient who has been in PICU [REDACTED] has a positive blood culture for Stenotrophomonas.

Patient in Ward 3C renal unit with Stenotrophomonas. [REDACTED]
[REDACTED]

Professor Gibson has requested a full look back and patient timeline for all positive patients.

Actions

Hypothesis

Dr Inkster has requested support from Health Facilities Scotland and Health Protection Scotland as the original Hypothesis of the incident is different due to positive water results in other ward areas and not the transmission of the organisms from sink to showers by staff only on 2A. The outlets appear to be the problem Dr Inkster has also requested that HPS & HPS contact Public Health in England to see if they have experienced anything similar to this situation.

Water results

The reason we have tested the water for Cupriavidus is because patients are coming back positive for this. Usually microbiology does not test for this. The current sampling process in our hospitals is to sample high risk areas with flow straighteners for pseudomonas. We do additional sampling due to the taps we use. We also test for Legionella

Awaiting definite results from Ward 2B, 3C in the RHC campus and Ward 4B in the QEUH campus.

Dr Kennedy has requested that it would be beneficial that the Steno and Cupriavidus cases are separated out so that we know.

Investigations

All positive isolates are being sent away to Collindale for typing which can take up to 2 weeks for the results to come back.

Facilities will resample the water from the bulk storage tanks.

Sample water from the DSRs within each of the following Wards 2A, 2B, 2C, PICU (RHC) and also 4A, 4B, 4C, 4D (QEUH).

Sample the Maternity and Institute building as they have got a separate water supply and see if Cupriavidus is present, that way we can tell if it is coming from outside the hospital. They also have chlorine dioxide system so it will be interesting to see if it is there

Microbiology informed the group they can only handle a maximum of 50 samples per day so facilities will need to prioritise these

Dr Kennedy will contact Scottish Water to see if water samples can be taken from the main lines before entering the holding water tanks within the campus.

Control Measures

Ward 2A has had its showers out of use since the night of Friday 9th March. Patients are using wipes to clean themselves, sterile water for drinking and bottled water for brushing teeth.

Staff can still use the CHWB but have been asked to carry out an extra hand hygiene process with Sterillium hand gel for at least 90 seconds. The Infection Control team will carry out training for staff within ward 2A.

Facilities have dosed the system 3 times with Silver Hydrogen Peroxide since the first case was reported. There are going to use a different dosing agent (Chlorine) but the group agreed that this may be useless until we find out where the source of the *Campylobacter* is coming from.

It was agreed that as a precaution all patients within the affected wards will be given Ciprofloxacin prophylaxis as a precaution measure.

Fit point of use filters to all the taps in Ward 2A, 2B, 3C and PICU. If there is a limited supply then the main target should be Ward 2A. Pre and post water checks will be done on filters as a priority.

A twice daily clean with Actichlor plus in ward 2A is to be carried out on a daily basis.

HIIAT Assessment

The group agreed that the HIIAT should remain at RED.

Communication

Patients/Parents

Professor Brenda Gibson and Dr Teresa Inkster have spoken to one of the positive *Stenotrophomonas* patients this morning in Ward 2A.

Dr Dermot Murphy is going to speak to the 2nd patient/parents this afternoon.

All patient information has gone out to all current inpatients regarding the water issues.

If any patient/parent enquires about receiving Ciprofloxacin they are to say it's just a precaution due to issues with the water supply.

Staff

Professor Gibson raised her concerns about positive results from the Labs not being telephoned to her directly. Dr Inkster will inform Dr Brian Jones to inform on-call Microbiology staff, results from the lab should be directed to the patient consultants.

Facilities did not inform anyone about the shutting off of water to Ward 2A. It has been requested that an email should be sent out from the site base manager to report on managers about any update on the current situation. This would involve reports from multiple departments which will need to be collated and sent to the site manager who is on call so they can disseminate to the managers. Huddle at 8am and 3pm.

Site base manager will need to get a report from microbiology and facilities regarding this so they should send out an email. Jamie Redfern to piece together report and Teresa will check this and send it back for Jamie to disseminate to managers.

Press

Mark Dell read over the basis of the press statement in which they will mention that 3 patients have been affected and what measurements have been put in place, and ensure that all IPC measurements are being followed

Dr Armstrong will speak to the Chief Executive Jane Grant to see if a pro active press release statement should be released.

AOCB

There will be a smaller meeting with essential staff from each department to discuss a contingency plan if any of the measurements are unable to be met/any more positive results are reported.

Confirmed Action Plan

Dr Brenda Gibson will speak to Pharmacy about the supply of Ciprofloxacin.

BG

Dr Iain Kennedy is to contact Scottish Water regarding obtaining water samples from the main water supply coming into the hospital campus.

IK

Twice daily clean with Actichlor plus of Ward 2a is to be carried out

IPCT

Filters are to be put onto every tap within the wards affected but if not enough available then Ward 2A should be the main focus.

IP

HPS and HFS are to work on hypothesis of incident and contact Public Health/NHS England to see if they have encountered anything like this before.

AR

Iain Powrie to work with Julie MacDonnell and John Mallon regarding samples being sent to the lab.

IP/JM

IPCT will arrange education for staff within Ward 2A surrounding hand hygiene use of Sterillium hand gel.

IPCT

Dr Murphy to speak to family regarding the recent positive result of Steno

DM

Dr Armstrong will speak to the Chief executive Jane Grant to see if a pro active press release statement should be actioned.

JA

The group agreed to meet at the end of this week; time and date of meeting will be confirmed.

**Incident Management Meeting
Water Incident, Ward 2A, RHC
19th March 2018**

Present: Dr Teresa Inkster (TI), Annette Rankin (AR), Susie Dodd (SD), Emma Somerville (ES), Dr Iain Kennedy (IK), Mary Ann Kane (MAK), Jenn Rodgers (JR), Jamie Redfern (JRf), Angela Johnson (AJ), Ian Powrie (IP), Melanie Hutton (MH), Mark Dell (MD), Eddie McLaughlin (EM), Dr Liz Chalmers (LC), Alan Gallagher (AG), Colin Purdon (CP), Janet Young (JY), Angela Howat (AH), Dr Jennifer Armstrong (JA), Calum MacLeod (minutes)

Telephone – Ian Storrar (IS)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

If anyone has any comments from the minutes of the last IMT meeting held on 16th March 2018 can you please email them onto Dr Inkster by 17:00 tomorrow.

It was agreed that the agenda items 1-9 for this meeting will be for clinicians only but the more in depth schematics and future preventable issues will be discussed with facilities, estates, Health Facilities Scotland (HFS) & Health Protection Scotland (HPS).

Incident Update

Dr Inkster gave a description of the clinical setting and the current pressures on patients, families and staff

Dr Inkster gave a full summary update of the incident so far for new members of the IMT.

Any questions on the background information Dr Inkster sent out to the group please contact Dr Inkster for any queries.

Patient Update

Currently 3 patients positive with Stenotrophomonas in Ward 2A, RHC.

A new patient identified but this was confirmed prior to when Infection Control measures were put in place.

A positive Stenotrophomonas in PICU but this case is not linked to ward 2A. [REDACTED]

No raised concerns of patients from Cystic Fibrosis and Renal teams.

Dr Liz Chalmers informed Dr Inkster of a couple of patients with increased pyrexia in Ward 2A and some patients in Ward 3C with possible fungal growth. The Infection Control Team will look into these cases.

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Actions

Water Results

Dr Inkster informed the group that two different species of Cupriavidus has been identified from the results. Microbiology are still awaiting results from water samples and Dr Inkster has requested that staff are very vigilant in labelling the samples so no mistakes are made.

Pre and post filter samples need to be treated due to a possible mislabelling

Dr Kennedy informed the group that Scottish Water took 4 samples in different locations in close proximity to the hospital on Saturday 17th March. Initial results have shown no growth for E-Coli, no chloroforms and currently awaiting enterococci and some incubator plates but so far nothing has been found.

Scottish Water handed in duplicate samples to the lab where results of these samples will be available shortly.

Maternity and Institute buildings were sampled on Sunday 18th March, awaiting results.

Janis Young informed the group and extra staff have been brought in to cope with the increase demand on water samples and are trying to get results out as soon as possible.

Dr Inkster informed the group that due to staff illness at Colindale typing results will not be available until after Easter holidays. She reported that it is not unusual to see different strains of the same bacteria in a water incident such as this

Control Measures

The following specific control measurements for immunocompromised patients are as follows

- Patient must not wash/be washed/drink or brush teeth with water from the sink or shower outlets.
- Only drink bottle water
- Use bottle water to brush teeth
- Wash must be used by single use patient wipes/bottled water or water from the mobile hand wash units.

Please note that sterile water should be used if it is a Bone Marrow Transplant (BMT) patient.

All rooms with immunocompromised patients are to get a twice daily Actichlor cleans which consists of all rooms in ward 2A and any inpatients throughout RHC.

For aseptic procedures staff will wash hands at sink, then use Sterillium lotion for 90 seconds. If Sterillium is not available they can use surgical scrub Betadine or Chlorhexadine with standard technique followed by rinse with bottled water.

The consensus from the group is once the filters have been fitted to the taps and a negative result has been obtained then can the control measures can be lifted. Dr Inkster is going to contact peter Hoffman to see if this would be acceptable.

Point of use filters will not be put into theatres as theatres use surgical scrubs to carry out

procedures. The Special Feeds unit water does the water come from maternity of children's hospital. Already have a carbon filtration system already in place.

A list of all immunocompromised patients currently in RHC will be compiled daily so that all patient will have the Infection Control measures put in place as well.

Water control Measures

Short term control measures continue as planned. Over the weekend Dr Inkster, Public Health, Health Protection Scotland, Health Facilities Scotland and their counterparts in England had numerous conference calls to discuss if the current control measures in place were sufficient and what could be done in the long term to rectify this.

The water filters are only a temporary fix as it is unsure how long the filters can be used until they will need replacing.

Facilities said they could carry out high temperature disinfection to wards but this would take the ward out of use for up to 4 weeks.

The regular replacement of shower heads and hoses has been implemented.

In the long term it has been suggested that we could look into installing taps which have copper flow straighter. The overall installation of new taps throughout the hospital would need to be impended in a staged effort as the whole of the back IPS panel will need to be removed and approximately 2 metres of piping will need to be replaced for each tap.

The introduction of a low dosing of chlorine dioxide to the water supply to reduce microbial burden on the water could be implemented but this would take time for the dosing to build up.

Having a complete set of decontaminated taps so that there is a rolling program to replace the taps for maintenance. However concerns over putting some of the elements from the Horne tap into an autoclave as Horn say some components have only been tested to 85 degrees and could damage some elements within the Horne taps as the autoclave temperatures exceed the recommended temperature.

HIAT Assessment

The group agreed that the HIAT should remain at RED.

Jamie Redfern has been contacted by Renal Clinicians surrounding the wording of the HIAT saying patients have been put in distress as lines are having to be removed then reinserted when need dialysis/operations.

Annette Rankin from HPS will update the Scottish Government after the meeting regarding the measures put in place by the IMT Group.

Update on Contingency Plans

Once all filters have been put in place and samples have been taken it will take until Wednesday for the results to come through to see if a contingency plan will need to be implemented or control measures can be relaxed.

Communication

Patients/Parents

Concerned patient in [REDACTED] who has Stenotropomonas would be keen to speak someone regarding this. Dr Inkster would be happy to be present when the patient's consultant is there as well.

Staff

Staff been receiving updates on the situation on daily basis

Staff in Ward 3C have some confusion as not all patients are immunocompromised so unsure as to why some patients can have showers and some cannot.

Press

Mark Dell will update the press today with statement after Dr Inkster and Dr Armstrong have gone through it. It was agreed that the newly identified case should be included but must word this to tell the press that this patient had been home and since been readmitted. A quote from HPS to reassure the public that all IPC measures are in place could re-assure members of the public.

Water system – question from HFS

Ian Storrar was on the telephone going over a checklist with Facilities/Estates which he wanted to confirm about the water testing, maintenance of the water system and water tank maintenance. All answers were provided and there are no new measures to be introduced as a result

It was agreed to stop taking water samples and concentrate on getting the point of use filters installed as soon as possible.

Susie Dodd and Mary Ann Kane will identify all items domestics commonly use throughout RHC and QEUH.

AOCB

After the IMT results became available from 4B indicating Cupriavidus in the water.

The group agreed that the next meeting staff from Ward 4B, QEUH hospital will be invited as it concerns them as well. A meeting is being held later today with managers from ward 4B to inform them of the Infection Control measurements being implemented within their ward.

Further discussion took place re hypothesis and why now present in adult hospital. Dr Inkster requested checking all solutions used by domestics, hand products etc in case we are dealing with a contaminated batch of something

Confirmed Action Plan

The Infection Control Team will look into a list of patients from Dr Liz Chalmers currently on Ward 2A and Ward 3C.

IPCT

Infection Control measures are to stay in place until results from water outlets fitted with the filters have come back negative and Dr Inkster is pleased that the filters are working.

IK

Dr Inkster will speak to concerned parents of patient in PICU

IK

A list of all immunocompromised patients who are currently an inpatient at the RHC will be compiled so that the same control measures can be implemented for these patients throughout the hospital

JR

Susie Dodd and Mary Ann Kane will identify all items domestics commonly use throughout RHC and QEUH.

SD/MAK

The group agreed to meet on Wednesday 21st March at 1400

**Incident Management Meeting
Water Incident QEUH & RHC
21st March 2018**

Present: Dr Teresa Inkster (TI), Emma Somerville (ES), Angela Howat (AH), Annette Rankin (AR), Susie Dodd (SD), Lynn Pritchard (LP), Tom Walsh (TW) Melanie Hutton (MH) Dr Elizabeth Chalmers (EC), Dr Iain Kennedy (IK) Jamie Redfern (JRf), Mark Dell (MD), Gary Jenkins (GJ), Myra Campbell (MC), Jenn Rodgers (JR), Annette Rankin, Janet Young (JY), Karen Connelly (KC) Mary Ann Kane (MAK), Dr Alastair Hart (AH), Alan Gallagher (AG) Dr Anna Maria Ewan (E) Janice Watt (JW) Calum MacLeod (minutes)

Telephone – Ian Storrar (IS),

[Actions](#)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

If anyone has comments/amendments from any of the previous IMT minutes can you please send them onto Dr Inkster and Calum MacLeod (Infection Control Administrator) who will get these amended by the end of the week.

Dr Inkster informed the group that HPS algorithm has been evoked meaning HPS will lead and coordinate all national support activity. It also means that the Scottish Government can intervene if they think requirements are not being met.

Patient Update RHC

Ward 2A

All 3 positive blood culture *Stenotrophomonas* patients have had their lines taken out and are currently stable and causing no concerns to staff.

PICU

Positive *Stenotrophomonas* blood culture patient In PICU [REDACTED]
[REDACTED]. The group agreed that this case is unlikely to be linked to Ward 2A cases [REDACTED]
[REDACTED].

Patient Update QEUH

No positive blood cultures for *Stenotrophomonas* or *Cupriavidus* in Ward 4B

There have been no new cases since the implementation of the control measures.

Epidemiology

Public Health and Health Protection Scotland have been asked to assist epidemiology of Cupriavidus and Stenotrophomonas.

Dr Inkster discussed the epidemiology to date.

Since the opening of the RHC site there have been 3 cases of Cupriavidus reported. This is a very rare pathogen which is linked to dialysis lines and water. Strong epidemiology link with the Cupriavidus and water with the positive results from the water outlets.

Cases of Stenotrophomonas have spiked to 4 cases during the month of March 2018 in RHC 2A. There is usually about 1 case of Stenotrophomonas a month within the RHC site. In ward 4B QEUH site only one case of Stenotrophomonas has ever been reported since opening. In ward 2A it is unclear whether we can link to this to water as it has only been found in one shower outlet. However the counts were high at >100 and we only sampled limited outlets assuming widespread contamination with Cupriavidus. Originally it was thought the Stenotrophomonas was being transmitted through patients taking showers. The other possibility is that the index case is water related and subsequent cases were transmitted from HCW to other patients or all cases may be completely independent from the water supply.

Typing results will shed light on the Cupriavidus as it will show if there has been a link with cross transmission from water outlet to patient.

Cannot determine if Stenotrophomonas is water source or cross transmission until typing results come back.

HPS and PH colleagues continue to work on more detailed epidemiology

RHC Water Report

Ward 2A wide spread positive results for Cupriavidus in multiple sink outlets, 2 positive shower outlets with Stenotrophomonas and 1 outlet with pseudomonas. Dosed system 4 times and have seen the counts being lowered but Cupriavidus still present in number of outlets.

Ward 2B and 3C still have widespread Cupriavidus

Fungal matter found in water supply in 2B and 3C but levels not dramatic and it is not uncommon to find this in hospital environments. None of the fungus has been identified as significant to date. Dr Inkster reassured the group that no issues with Aspergillus were found within the samples although noted an issue with lab contaminants. Fungus in the water supply is a concern particularly for BMT patients and Dr Inkster has discussed with experts. Control measures will need to take this into account moving forward.

Ward 4B QEUH Water Report

Two positive results of Cupriavidus from shower head in ward 4B Multiple water samples positive from outlets in 4B

Sampling being carried out today within occupied bed areas in Ward 4B QEUH.

Other Reports

The two sources of water coming into the hospital from Hardgate road and Govan road have both come back negative from samples taken by Scottish Water. Low levels of another bacteria were identified but within acceptable limits and there is no evidence of this bacteria in our tanks indicating that filtration is working.

Dr Inkster provided a plan of the water system of the QEUH and RHC. She reported that the two main water storage tanks, filter tanks and booster pumps have all come back negative.

Dr Inkster thanked the lab staff for managing to increase their testing to 100 samples a day and trying to turn around samples within 48 hours.

Renal dialysis samples are within normal limits

There are no concerns re aseptic pharmacy results – successive results are negative

Prioritise for sampling

Further water sampling from random water outlets has been carried out in the following areas within RHC site PICU, Ward 2A and Theatre. For the QEUH site Wards 4A-D, 7A-D, 8C, 9D, 10A, 11C, Critical Care, CCU and Theatres.

Susie Dodd's asked if the special feeds unit should be tested but Dr Inkster informed them that they already use filters on their water supply and a wider spread of positive patients would have been noticed.

Other Relevant reports

Samples were taken of soap dispensers, liquid soap, wipes and an array of commonly used items domestics use. Initial results from the samples after 24 hours is negative but still have to wait until 48 hours until incubation period is complete.

Current Infection Control Measures

The following specific control measurements for immunocompromised patients are as follows

- Patient must not wash/be washed/drink or brush teeth with water from the sink or shower outlets.
- Only drink bottle water
- Use bottle water to brush teeth
- Wash must be used by single use patient wipes/bottled water or water from the mobile hand wash units which are available in Ward 2A.
- Parents and staff can use sinks for hand hygiene but use AHR afterwards.

Please note that sterile water should be used if it is a Bone Marrow Transplant (BMT) patient.

All rooms with immunocompromised patients are to get a twice daily Actichlor cleans which consists of all rooms in ward 2A and any inpatients throughout RHC.

If staff are to carry out an aseptic technique on a patient then they must carry out hand hygiene a surgical scrub with bottled water then followed by use of sterillum.

Ciprofloxacin is still to be given to all immunosuppressed patients in the meantime but this will not be a long term. Janice Watt informed the group that Pharmacy are currently going through 50 bottles of Ciprofloxacin a week. She is mostly concerned that the long term supply of liquid form Ciprofloxacin mostly used for paediatric patients compared to the tablet form given to adults.

Emma Somerville informed the group that some [REDACTED] patients with Ward 2A are getting frustrated as not being allowed to shower for a number of days now.

Water Control Measures

Tap and shower filters have been fitted in Ward 2A, 2B, 3C in the RHC and occupied beds in Ward 4B Haematology, QEUH (unoccupied rooms being done later this week). Filters are currently being fitted to NICU today with sampling being taken from PICU before filters being installed.

Gary Jenkins will communicate with Mary Ann Kane regarding what areas should be prioritised within the QEUH for the fitting of water filters into Ward 4A, 4C, 4D, 7A and 7D.

Quality assurance of the fitting of the filters will be carried out by Facilities.

Melanie Hutton raised her concerns that a 4 bedded bay within Ward 3A, RHC has not been fitted with filters that has immunocompromised patients. Colin Purdon has passed this information onto the fitters who will get his done.

It was suggested that a ward area within RHC could be dedicated to immunosuppressed patients out with Ward 2A and 3C. Jamie Redfern informed the group that specific oncology patients would require certain specialised staff to take care of patients. It was agreed that the continuation of the current plan to inform facilities daily of where immunocompromised patients are being held would be sufficient.

Dr Inkster informed the group that to completely know if the filters work they would need to identify a positive water outlet that has not been dosed with silver nitrate, fit the filter and resample to see the results.

Mary Ann Kane has been in contact with the filter manufacturers PAL who 100% guarantee that if fitted correctly the filter would work for Cupriavidus and Stenotrophomonas. The filters have never failed unless it has been fitted incorrectly.

Jenn Rodgers raised her concern that we thought that the dosing of the water system with silver nitrate would eradicate this pathogen but did not so with the raising of the precautions for washing and hand hygiene new cases could start to appear.

It was agreed once facilities can confirm that filters have been fitted to all CWHB and showers and checked they have been fitted correctly then patients can resume using showers and wash hand wash basins.

Facilities will carry out tests on the water outlets on a weekly basis to ensure the filter is working. If the counts start to get high then they can change the filters on the affected outlets. The filters currently fitted to the taps have a working life of 30 days. Facilities have are introducing a rolling program to change these filters from day 25.

Water coolers are to be kept out of use within in patient areas.

Dr Kennedy informed the group that Scottish water have offered their expertise/help if required. The IMT agreed that their expertise would be useful when looking at longer term future preventative measures, but was not needed for the acute management of the incident.

Tom Walsh informed the group that in an HPS guidance document it says that the use of water filters is acceptable.

There was extensive discussions re whether microbiological efficacy of filters was required prior to using the water. The consensus of the IMT was that we would proceed with filters without these results. Post meeting this decision was supported by Peter Hoffman Public Health England and Susanne Lee, International water expert.

Future Preventative Measures

Currently two future preventable measures are being looked at.

One of the measures is the installation and replacing of all horne taps within high risk areas or throughout the whole QEUH and RHC campus with the later being very time costly and time consuming. Two tap models are currently being investigated

The other preventable measure being looked at is the dosing of the water system with Chlorine dioxide. This would need expert opinion on how this could be implemented due to the size of the campus and the water holding tanks.

Hypothesis

Dr Inkster explained that Scottish water and main tanks are negative. Post filtration tanks and risers are negative. The bacteria concerned like oxygen and taps/showers are heavily contaminated. Tap and shower components are conducive to biofilm especially flow straighteners and plastic.

Annette Rankin and Dr Inkster explained there may have been contamination in the past with organisms being flushed through the system but forming biofilm on the outlets .

HIIAT Assessment

The group agreed that the HIIAT should remain at RED.

Update on Contingency Plans

At the moment there is no contingency plan if positive results are found post filter installation. There is a possible scenario of about 50 immunosuppressed patients within the RHC that may need to be relocated. Dr Inkster suggested some plans need to be thought about at this stage.

Communication

Patients/Parents

Parents and patients have been very patient with the current measures in place.

Staff

Dr Inkster has issued some guidance to medical staff within the QEUH.

Could all communications regarding results and what areas are still to be fitted with filters please be brought to the next IMT as Dr Inkster and estates colleagues are getting overloaded with emails and requests.

Press/Public

Mark Dell has been working on statement and will speak to Gary Jenkins and Dr Inkster after this meeting to finalise statement before running it past Dr Armstrong and Jane Grant before releasing it.

Mark Dell said there had been some feedback regarding reports of lack of transparency especially around communication to families etc, but staff have kept families within the loop and were told appropriately and timely when results were confirmed.

Confirmed Action Plan

Gary Jenkins will communicate with Mary Ann Kane regarding what areas should be prioritised within the QEUH for the fitting of water filters into Ward 4A, 4C, 4D, 7A and 7D.

GJ/MAK

The use of showers and taps for patients within the RHC campus will be resumed once facilities have checked that all filters have been fitted correctly. An email will be sent to staff tomorrow morning informing of this decision.

MAK

Next meeting is being held on Friday 23rd March at 1400 in Level 11 Seminar Room, QEUH

**Incident Management Meeting
Water Incident QEUH & RHC
23rd March 2018**

Present: Dr Teresa Inkster (TI), Susie Dodd (SD), Lynn Pritchard (LP), Elaine Burt (EB), Emma Somerville (ES), Angela Howat (AH) Dr Iain Kennedy (IK), Myra Campbell (MC), Janet Young (JY), Susie Dodd (SD), Mary Ann Kane (MAK), Alan Gallagher (AG), Annette Rankin (AR) Patricia Friel (PF), Sandra Devine (SD), Lorraine Dick (LD), Eddie McLaughlin (EM), Kate Stock (KS), Jamie Redfern (JR), Professor Gibson(PG), Calum MacLeod (minutes)

Telephone – Ian Storrar (IS)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

The minutes of the last meeting held on Wednesday 21st March 2018 were accepted.

If anyone has comments/amendments from any of the previous IMT minutes can you please send them onto Dr Inkster and Calum MacLeod (Infection Control Administrator) who will get these amended.

Patient Update RHC

Ward 2A

The three affected patients have had [REDACTED]
[REDACTED].

PICU

[REDACTED]

[REDACTED]

Patient Update QEUH

Dr Inkster informed the group that there has been no Hospital Acquired Cupriavidus or Stenotrophomonas patient attributed to the QEUH since the start of the incident.

A Delftia pathogen has been found in Ward 4B water along with a positive blood culture of the same pathogen. Dr Inkster said this case will be excluded from the incident as it cannot be classed as a Hospital Acquired Infection (HAI) to the QEUH as patient was transferred from the RAH and no direct link that patient.

Epidemiology

Dr Kennedy informed the IMT that there is only one case of Cupriavidus, there is limited scope for additional epidemiology investigation.

Dr Kennedy has concluded the 3 Stenotrophomonas cases in Ward 2A and the other case within PICU are not linked.

Three cases of Stenotrophomonas and a further patient with [REDACTED] have strong links to Ward 2A. All four were inpatients in [REDACTED]. 2 of the cases had been nursed [REDACTED]. Subsequently, the colonised patient and one of the cases were nursed sequentially in [REDACTED], which is the only room with water results positive for Stenotrophomonas. The third case had been [REDACTED] throughout. Onset dates of the three cases are clustered between 11th and 15th March. This cluster of cases is closely linked in time and proximity of placement for each patient. The shared exposure includes exposure to a positive water outlet. Given the lack of positive results for this organism in other outlets, the likely hypothesis would be introduction of the organism via an unknown route into [REDACTED] water outlets and cross transmission via patient interaction, contaminated cleaning or clinical equipment or healthcare worker. Whether there had been cross transmission prior to the contamination of the [REDACTED] water outlets cannot be determined. Cross transmission by healthcare workers would seem least likely due to enhanced control measures that were in place though cannot be ruled out. When available, typing results may assist in confirming the hypothesis.

RHC Water Report

Facilities have taken samples from all water outlets within Ward 2A.

The results from these tests will be available over the weekend.

So far there have been no more positive results from the water.

Ward 4B QEUH Water Report

Currently awaiting results from ward 4B.

Other Reports

Dr Inkster has been given microbiology results from swabs taken of shower heads and taps from Ward 2A, RHC and Ward 4B, QEUH. Numerous numbers of environmental gram negative pathogens have been found.

Dr Inkster has requested that we should focus on the current water issue first and has requested HPS look at ECOSS systems to see about historical patient cases within ward 2A and ward 4B that could be related to this.

Dr Inkster has looked at total viable counts of water from the Glasgow Royal Infirmary to compare against QEUH and RHC but their water supply has come back negative.

Current Infection Control Measures

Bottle water for Paediatrics, twice daily cleans has been stopped for immunocompromised, only source isolation rooms are being cleaned. They can revert back to normal practice once all rooms have been quality assured and signed off once the filter has been fitted.

For BMT patients they are not to use showers and use wipes and bottle water to wash themselves. Still got the portable sinks in the rooms and using sterile water for drinking and brushing teeth. Patient's lines are covered with IV 3000 and strapped with sterile gauze and tegaderm. Currently █ BMT patients in RHC. Awaiting additional testing from Ward 2A to get assurances that water samples are negative from water outlets.

The same measures are in place within the adult wards. Lynn Pritchard sent out an email communication to the affected wards. She has also requested that the guidance is followed if patient require transfers into Critical Care.

Dr Inkster has asked that if patients are already on prophylaxis then to speak to a microbiologist before putting them onto Ciprofloxacin. Dr Inkster is going to review the use of Ciprofloxacin next week.

Current water Control Measures

The following areas have had the water filters fitted and quality checked within the RHC site - PICU/ NICU, Wards 2A, 2B, 3C. A selection of rooms throughout the RHC where an Immunosuppressed patient is located have also had filter fitted. Within the QEUH the following areas have or will be getting filters fitted Level 4, Level 7 (A&D priority), 8C, 9D, 10A and 11C.

For BMT patients a 61 day filter is used to minimise disruption to patient room. For all other filters it is a 31 day filter being used.

Once filters are fitted they cannot be taken off and used somewhere else. Do not clean filters with chlorine or cloths as it can contaminant the filters. Training is being put in place for domestics surrounding this.

It was agreed that the tap fitted with filters will be tested by facilities once a week.

Facilities informed the group that they cannot guarantee that the filter is working until weekly testing has been done. Professor Gibson said this has a massive knock on effect as transplant patients need weeks of planning and require guarantees about these filters for numerous weeks ahead so that they can plan their patients around this.

Prof Gibson and Dr Inkster will have a conversation with other units around the country who have used these. Other units may have had them on from the very beginning but we have just implemented them after a heavy microbial load and we are doubtful if the test for such a wide range of microbes as we do in GGC.

Facilities will contact a PAL representative to see where these filters are fitted in other BMT units around the country.

Lynn Pritchard informed facilities that filters have been put on small wash hand basins in kitchens which are blocking the sensor for the water and staff are unable to get hands under the filter due to size of sink.

Emma Sommerville asked about the bath in Ward 2A but facilities informed her that at the moment there is no filter that would cover the tap on the bath. It was agreed to keep the bath out of use until further notice.

Dr Inkster has requested the main indicator wards for filter checks should be focussed on ward 2A, RHC and ward 4B, QEUH.

Future Preventative Measures

Dr Inkster has formally invited a leading expert on water Suzanne Lee and is currently awaiting response. She is going to ask Suzanne to explore the hypothesis of the incident and see if she can recommend any more measures especially for BMT patients.

Dr Inkster will also ask her advice on the introduction of a new tap for high risk areas and also the introduction of dosing the water supply to the hospital.

Hypothesis

Dr Inkster has found numerous pathogens predominantly found in soil and plant material which is very unusual to see this. Dr Inkster has contacted an expert on this to see their point of view.

Facilities have informed the group that this could have happened during the commissioning period where there could have been a contamination of the water points. Facilities handed over test results to Microbiology before the opening of the hospital and they were signed off as they were within the Total Viable Count Threshold.

Facilities are to look out historical reports from the commissioning of the new hospital to see what the Total Viable Counts of the water was.

HIIAT

The group agreed that the HIIAT score should stay at RED.

Update on Contingency Plans

No concerns

Communications

Patients/Parents

No concerns from patients/parents with the RHC.

Staff

Dr Inkster attended Ward 2A MDT and spoke to them today.

Lot of questions from adult Renal and adult ITU. Lots of anxiety out there from staff trying to attribute a lot of gram negative pathogen results to the water.

Press/Public

No plan to do any press release today or over the weekend. It was agreed that the group will wait until results come through until next update.

AOCB

Professor Gibson asked if these filters could left be on a permanent basis. There are already a number of BMT departments who already use these filters throughout the country. Discussion around this will be taken forward at a later date to see if the filters can be used on a permanent basis within paediatric and adult BMT units.

Sandra Devine asked if there has been sampling of water in the new hospital in Dumfries and Galloway as they have a new build hospital. HPS has been in contact and been informed they do not use taps with flow straightners and the results are negative.

Action Plan

Facilities will look out historical water results during the commissioning of the new hospitals.

MAK

Facilities will contact the manufacturer of the filters to obtain a list of other high risk ward areas they supply throughout the country.

MAK

HPS will carry out a look back exercise with regards to the epidemiology of the Stenotrophomonas, Cupriavidus and Pseudomonas pathogens found on recent tap and shower swabs.

HPS

**Next IMT will be on Tuesday 27th March at 1400, Room GWS-008, 3rd Floor,
RHC**

**Incident Management Meeting
Water Incident QEUH & RHC
27th March 2018**

Present: Dr Teresa Inkster (TI), Lynn Pritchard (LP), Fiona Robb (FB), Dr Iain Kennedy (IK), Lorraine Dick (LD), Morag Gardner (MG), Patricia Friel (PF), Annette Rankin (AR), Janet Young (JY), Emma Somerville (ES), Angela Johnson (AJ) Colin Purdon (CP), Angela Howat (AH), Jamie Redfern (JR), Professor Brenda Gibson (BG), Alan Gallagher (AG), Mary Ann Kane (MAK), Eddie McLaughlan (EM), Tom Steele (TS), Dr Diana McIntosh (DM), Calum MacLeod (minutes)

Welcome & Apologies

Dr Inkster welcomed everyone to the meeting and introductions were made.

Minutes of Last Meeting

The minutes of the last meeting held on Friday 23rd March 2018 were accepted with the following amendments

Epidemiology Section Page 2 should read “Dr Kennedy has ruled out looking into the Cupriavidus as there would be limited epidemiology as there is only one case”

Dr Iain Kennedy will email Calum MacLeod with wording surrounding the water evidence linking the cases within the epidemiology section.

Current water control measures on page 4 last paragraph should read “the main indicator wards for filter checks should be focused on ward 2A, RHC and ward 4B, QEUH”

Action plan on page 5, last paragraph should read that “HPS will carry out a look back exercise with regards to the epidemiology of the Stenotrophomonas, Cupriavidus and Pseudomonas pathogens found on recent tap and shower swabs”

If anyone has comments/amendments from any of the previous IMT minutes can you please send them onto Dr Inkster and Calum MacLeod (Infection Control Administrator) who will get these amended.

Patient Update RHC

Ward 2A

The three affected patients are not giving medical staff any cause for concern.

PICU

No concerns regarding the patient in PICU.

Actions

Patient Update QEUH

No cases reported

RHC Water Report

Pre filter water results have come back showing numerous outlets within PICU positive with Cupriavidus and numerous outlets positive with Sphingomonas in NICU. Point of use filters have been fitted to CWHB outlets in these areas.

Dr Inkster informed the group that most of the positive tests are coming back as Cupriavidus, although these checks were all pre filter tests.

Positive results for Delftia has come back from testing carried out in theatres, RHC. Dr Inkster has requested filters are to be fitted there.

RHC therefore has evidence of widespread problem

Ward 4B QEUH Water Report

Pre filter results from water sampling within Ward 4B QEUH have different Microbiology results than Ward 2A, RHC. There is a mixture of gram negative pathogens with some outlets testing positive for high counts of fungal growth. Bacteria include Delftia sp, Comamonas sp, Achromobacter sp and Cupriavidus.

The water risers for Ward 4A and 4D have come back positive, but some of the water outlets are negative. Samples from Level 6 & 7 have come back negative. Dr Inkster has requested water testing on Level 5 to see if any pathogens are moving up the building.

Overall gram negative pathogens and fungal counts some greater than 100 have been found throughout the QEUH and RHC sites. Fungal counts should not be higher than 10 and some of the gram negative pathogens are significant, particularly for immunosuppressed patients.

Other Reports

Neuro and Maternity buildings are negative for everything with counts of zero due to historic chlorine dioxide dosing to the water supply to the buildings.

Initial typing results are showing 2 different strains of Cupriavidus. The group will need to wait until the patient typing results are returned to see if they are the same.

Patient pseudomonas bacteraemia is a different organism from the pseudomonas found from sampling. The group has decided to exclude this patient case from the incident as it is not linked to any of the samples taken.

Did not sample Ward 2A drains as numerous doses of Sansil has been put down the drains. Ward 2B, RHC and ward 4B, QEUH have been sampled. Both have come back with Stenotrophomonas, Elizabethkingia and Pseudomonas species.

Current Infection Control Measures

The group agreed to step down the Infection Control measures put in place for affected wards within the QEUH and RHC sites as point of care filters have been fitted to all water outlets and showers. Patients can now use the CHWB to carry out hand hygiene and also use the showers if required. Patients no longer require Ciprofloxacin.

The only issue is with drinking water which IPCT will include in their communication email.

For the time being BMT patients within the RHC will still have all precautions kept in place.

This was agreed as we need to wait for quality assurance process (4 weeks testing) of the point of use filters. There is a quality assurance from the company but NHGS GG&C has not approved it. The group said a lot of this is down to confidence and can we guarantee the safety of the BMT patients. Dr Inkster expressed concern re the company testing of filters and whether it was comparable to our situation with multiple bacteria and fungi. Furthermore when used in these situations filters are usually applied for a single organism problem. There are currently [REDACTED] in RHC at the moment with [REDACTED] BMT expected to be admitted within the next 4 weeks. The group decided that Dr Inkster, Dr Diana McIntosh, Professor Gibson and Jamie Redfern will meet up after this meeting to discuss further what IPCT controls should be put in place for the BMT patients.

***Post IMT it was agreed to proceed with BMT patients but that filters would need to be changed every 7 days as we have proven microbiological efficacy to that point. This will mean BMT patients can shower.**

Hypothesis

There are 3 main hypothesis the group are looking into which are -

Could the outlets be contaminated from a back flow from the drains? There is currently no evidence of back flow from drains. Ward 4B and 2B both have positive microbiology but this is different from the water results. Dr Inkster observed no backflow and noted that the showers, whilst they can dangle are sitting high above the drains, the group have decided to exclude this as a possible issue.

There is small number of organisms coming in from the main supply in low levels, which over time has built up and formed biofilm on the outlets

Contamination of the pipes during the commissioning of the building. Also the possibility that the taps had been kept in a dusty area for some time until they were all fitted without being cleaned.

Dr Inkster informed the group that this is an extremely complex problem so more than one of these ideas could be true.

Tom Steele said he would look into the air handling system as they use a very coarse filter that does not stop microbiology organisms. Dr Inkster stated that you would expect perhaps to see Gram positive organisms also and not just water associated Gram negatives. Ian Storrar has got experience regarding this and will speak to Dr Inkster when he gets back.

Current Water Control Measures

It was agreed that 12 water tests will be carried within each ward 2A and Ward 4B on a weekly basis. The outlets tested will remain the same throughout the month. Sampling will be carried out on a Monday so that the results will be available later on the week with no results coming in during the weekend. This will be carried out for 4 weeks which is lifetime of the filters and then each filter will be replaced through a rolling program

Facilities have got a table of all point of use filters and shower filters that have been fitted and will forward this onto the group.

Future Preventative Measures

New taps preferable without flow straighteners.

The introduction of a chlorine dioxide dosing of the water supply to RHC and QEUH.

Filters being used on a much longer term basis in high risk wards, defined as 2A and 4B

How do we clean drains throughout the RHC/QEUH sites? – Dr Inkster advised using acetic acid and focusing on 2a and 4B first.

HIIAT

The group agreed that the HIIAT score of AMBER after the group agreed there was moderate risk to service and public anxiety and minor risk to severity of illness and risk of transmission.

Update on Contingency Plans

Jamie Redfern is attending a Senior Management team meeting this week and will bring up what contingency plans could be put in place for the 60-70 immunosuppressed patients if the filters fail.

Lynn Pritchard asked Dr Inkster about higher risk patients being transferred within the adult hospital to areas that do have point of use filters. Dr Inkster is happy for the adult higher risk patients to go down to ITU with no measures in place. Patients are usually incubated and not using showers. As long as none of them are BMT patients.

Communications

Patients/Parents

No concerned parents at the moment but the longer this goes on for the BMT patients the more worried about the inconvenience.

Jamie raised concerns the longer this goes on for BMT patients the more likely they will get frustrated and wonder why they are being treated differently.

Staff

The adult and paediatric IPCT teams will send out an email communication to all Senior Charge Nurses informing them of the step down for precautions. Dr Inkster will also send out a similar email to clinicians.

Press/Public

A statement will be issued tomorrow once an agreement has been made regarding the BMT patients within the RHC.

AOCB

Dr Inkster informed the group that this IMT will be disbanded from today as it has dealt with all the acute issues. A separate group consisting of IPCT, Facilities, HPS and HFS will look into the remit of filter replacement, introduction of new taps, introduction of chlorine dioxide dosing to the water system and drain cleaning.

An incident report will be issued to the group by the end of April 2018. A de-brief meeting chaired by HPS will also be arranged in regards to the incident to see what went well and what lessons could be learnt from it.

Dr Inkster thanked everyone from the IMT group for all their hard work and effort in the last few weeks.

Action Plan

Dr Iain Kennedy will email Calum MacLeod with wording surrounding the water evidence linking the cases within the epidemiology section.

IK

Facilities will send out a table highlighting where all point of use filters have been fitted throughout the RHC and QEUH site.

AG

The adult and paediatric IPCT teams will send out an email communication to all Senior Charge Nurses informing them of the step down for precautions. Dr Inkster will also send out a similar email to clinicians.

LP/AJ/TI

**Incident Management meeting
Increased Incidence of Enterobacter cloacae (E.cloacae) associated with
ward 2A and day ward 2B
Tuesday 29th May 2018**

Present: Susie Dodd (Chair) Dr T Inkster, J Rodgers, Dr B Gibson, SJ McMillan, A McDaid, M Hutton, A Howatt.

Welcome & Apologies

SD welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Incident update – General situation statement

SD provided an update on the background of cases and the reasoning for today's IMT. A Problem Assessment group was held on the 18th May 2018 to discuss 4 new cases of E.cloacae in patients associated with ward 2A and/or 2B between 28th April and 14th May 2018. Of the 4, only 2 were HAIs as per the 48 hour rule. [REDACTED]

A run chart shared with the group listing all positive blood culture isolates for E.cloacae in RHC evidenced a spike in cases as a result of the 4 identified. On 28th May 2018, the IPCT were informed of another new case of E.cloacae bacteraemia in a patient admitted to 2A. By definition, the new case is a non HAI [REDACTED]. This IMT was convened as a result.

Patient Report

AMc, SJMc and AH provided an update on the new patient case. [REDACTED]

Investigations - Microbiology report

SD informed the group that typing of 2 cases has been reported and both are unique. SD and TI explained to the group that this suggests the source is less likely to be a single piece of contaminated equipment or hands. Typing results are awaited for 2 further cases which are outstanding. The sample belonging to the very first case was discarded as a lab error.

Investigations – other relevant reports

TI updated the group on a meeting held with HPS earlier in the day in which the remit of the HPS investigations was discussed. TI and SD went through the proposed areas for review but a formal terms of reference is awaited. TI will forward to all once received.

Actions

TI

Control Measures

SD ran through the list of actions generated from the PAG on the 18th May as listed below.

- *SD will follow up on progress of cleaning tool for underside of parent beds – Complete.* Following a meeting with domestic managers, it has now been agreed that domestic services will clean the underside of parent beds on a daily basis.
- *SD will increase IPCN ward visits to daily – Complete.* IPCNs commenced daily visits as of 21st May 2018.
- *JR will explore whether appropriate for housekeeper to assist in the cleaning of underside of parent beds – This action became redundant for 2A following agreement resulting from the first action.*
- *TI will report domestic concerns to Interim director for facilities Mary Ann Kane on a background of multiple concerns raised around domestic cleaning – Complete.* Reported by Dr Inkster by email on 21st May. Dr Inkster updated the group on the response received from Karen Connelly (GM, facilities) received on 24th May. Dr Inkster will share this with the group. TI
- *SD will chase progress of IPC information leaflet specifically designed for parents – Complete.* Leaflet yet to go through committees. Post meeting update – leaflet to be issued as an interim document in order to get it into use as soon as possible. SD
- *BG and ES will continue to request that parents keep rooms clutter free and assist with access to clean. This will be rolled out to staff to enforce the message – Ongoing.*
- *ES will task a staff member with auditing the number of people coming onto ward 2A and their purpose for being on the ward - Complete.* Numbers ranged from 60 to 90 people per day (inclusive of staff and visitors). TI agreed to email Alan Mathers to express concerns around the number of visiting medics and request that numbers should be kept to a minimum. TI
- *TI to contact relevant parties regarding use of HPV – Complete.* Initial meeting held on 23rd May. Confirmation awaited on the available funding. Dr Inkster has requested this from Jamie Redfern. Further meeting arranged for Friday 1st June to progress this. SD will email out details of time and venue. SD

In addition to the actions above TI reported that chilled beams have been sampled and a request made for all to be cleaned within ward 2A. Results from sampling are awaited.

Further Investigation/Control Measures

TI expressed concern that the drains could be a potential source of the E.collocaae and noted the black grime found within the drains of the sinks. TI informed the group that IPCNs have been asked to swab drains within hand wash basins on ward 2A and 2B. This has now been completed and samples sent to the lab. Dr Inkster will request that all drains are now sanitised as a priority. TI

SD reported that during a routine visit to ward 2B on 28th May, the high and low surfaces were found to be dusty. On reporting this to domestic manager it was revealed that a communication failure meant that 2B did not receive any domestic cleaning over the weekend. A domestic was sent immediately to 2B and cleaning commenced.

SD reported that following discussions with JR, linen bins had been agreed for use in the ensuite bathrooms of each patient room allowing parents to dispose of linen within the room rather than walking down the corridor to the sluice. MH will arrange ordering of these. MH

SD reported that a Lead IPCN from the GRI visited 2A earlier today to provide a peer review SD

of the area for the IPCT. Her observations will be emailed to SD who will share with the group.

Some discussion took place around the environment of ward 2A and the restrictions of the design. SD queried progress of finding alternative room for the treatment bed currently in the prep room. JR advised that she has discussed this with Jamie Redfern and finding a solution to the problem involved a larger scale investment and movement of some internal ward services. JR will continue to chase this.

JR

SJMc had suggested turning a staff toilet at the TCT end of the ward into a sluice meaning that staff didn't always have to take macerator products down the length of the ward for disposal. SD will review room this for suitability.

SD

SD queried audits being carried out at ward level. MH reported that 2A are carrying out SICPs audits weekly and hand hygiene audits monthly. Hand hygiene audits will be increased to weekly again. AH reported that SICPs audit are carried out twice yearly in line with board requirements and hand hygiene audits are carried out monthly.

MH

MH also reported that she will arrange a further peer review of line care on wards 2A and 2B.

MH

AH reported that staff continue to visit the ward without carrying out hand hygiene on entrance to the ward. SD agreed to send out a reminder email to nursing and AHP managers to remind staff of the importance of this.

HIIAT Assessment

The group agreed that the HIIAT is Amber
Severity of illness – Moderate (New case having line removed and treatment delayed)
Impact on services – Minor
Risk of transmission – Moderate (Ongoing transmission now identified)
Public anxiety - Minor

Communication

Reported to HPS, SGHD and Senior management via HIIORT by TI on 29/05/18.

AOCB

SJMc and BG were keen to note that staff morale on ward 2A was lower than ever. This was recognised by all and support with a resolution to the issues identified was encouraged.

Date and time of next meeting

No further meeting unless further cases identified.

**Incident Management meeting
Water System Incident
Ward 2A & 2B
Monday 4th June 2018**

Present: Jamie Redfern (Chair), David MacDonald, Karen Connelly, Sandra Devine, Annette Rankin, Susie Dodd, Lorraine Dick, Brenda Gibson, Morag Jones, Melanie Hutton, Jen Rodgers, Ian Powrie, Alan Gallagher, Stephen Bowhay, Angela Howatt, Ian Storrar (Telephone), Teresa Inkster (Telephone)

Welcome, Apologies, Introductions

JRe welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Appropriate Membership

It was agreed that all the necessary professionals were present or represented at the meeting.

Declarations of conflict of interest

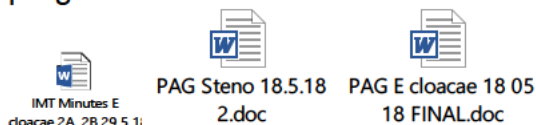
None declared.

Items not on the agenda

The group agreed that there were no missing agenda items.

Minutes of the last meeting

This was the first meeting held specifically in relation to the contaminated drains. It was noted however that there had been previous PAGs/IMTs held relating to Enterobacter and Stenotrophomans which led to the drains being swabbed. The actions generated are in progress and contained in the attached documents.



Incident update – 1. General situation statement

SD provided an update on the background of cases and the reasoning for today's IMT. A Problem Assessment group was held on the 18th May 2018 to discuss 4 new cases of E.cloacae bacteraemia and 3 cases of Stenotrophomonas maltophilia bacteraemia in patient's associated with ward 2A and/or 2B. A number of actions were generated from these PAGs including sampling of drains. Late on Friday, results of the drain swabs were reported. Various gram negative organisms were identified including Enterobacter cloacae, Pseudomonas aeruginosa, Sphingomonas, Cupriavidis pauculus, Acinetobacter ursingii and Klebsiella oxytoca. [REDACTED]

[REDACTED] Blood cultures obtained from the patient's line on arrival to the ward were reported on Sunday morning to be a gram negative organism. As a result, Dr Gibson arranged an urgent meeting with clinicians to discuss the ongoing issues on ward 2A and concerns around the safety of the unit for new

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Actions

admissions. The meeting was held on the morning of the 4th June 2018. During this meeting, clinicians felt that it was not safe to continue to admit new patients to ward 2A. This IMT was therefore arranged to discuss these concerns. Page 99

Incident update – 2. Patient Report

[REDACTED] She noted that patient's are often improving by the time the HIIAT is assessed and therefore the severity of illness is often minor or moderate. She was keen to stress that the clinical presentation of this patient should score a major on HIIAT. The group agreed and noted that HIIAT would be completed later in the meeting.

Incident update – 3. Microbiology report

Dr Inkster expanded on the findings of the drain swabs. JRe asked Dr Inkster what the significance was in relation to clinical isolates. Dr Inkster reported that it is very likely that the *Enterobacter cloacae* bacteraemias are associated with contaminated drains. Dr Inkster also confirmed that the [REDACTED] has grown *Pseudomonas aeruginosa*, *Stenotrophomonas maltophilia* and *Acinetobacter* in blood cultures. AR queried if concerns had been reported relating to drains previously. AH and SD stated that black grime had been noted in the drains some weeks ago. AG confirmed that this had been reported and discussed at previous water IMTs. He stated that the opinion of both water experts consulted as part of the water incident was that drains should not be cleaned. AR advised that this advice is approached with caution.

Incident update – 4. other relevant reports

No other reports.

Risk Management/Control Measures – 1. Patients

SD informed the group that an extra hand hygiene step for staff had been implemented on Friday evening following receipt of the drain swab results. Staff must use alcohol hand gel after washing their hands.

BG queried reinstating prophylaxis. TI agreed that this was a sensible step and felt Ciprofloxacin was the preferred antibiotic for prophylaxis to cover the organisms found in the drain swabs.

BG stated that she and her fellow clinicians were not comfortable admitting new patients to ward 2A whilst the environment risk is not controlled. TI agreed with this. JRe suggested that patients are assessed on a case by case basis as done previously during ward closures. BG agreed and stated that patients who are well enough to be admitted to a ward outside of 2A will be. She queried whether it was safe to bring patients into 2B for chemo. TI felt that it was just as high risk as 2A and advised against giving chemo on 2B until drain cleaning and HPV cleaning can be carried out. JRe queried if any patient's were due bone marrow transplant.

Risk Management/Control Measures – 2. General

Actions from previous IMTs were noted as per attached docs above. JRe reported that a weekly report is being issued to Dr Jennifer Armstrong (medical director) with updates on progress of actions and investigations. Dr Gibson queried if patients should be allowed out on pass. SB suggested that they should be on prophylaxis if out on pass. TI felt this was a sensible suggestion but would give it further thought following the meeting and discuss with Dr Gibson. SB queried control measures in the aseptic pharmacy. SDo explained that there were some investigations ongoing as to the supply of medications from the aseptic pharmacy to the patients known to have bacteraemia. TI added that there is only one sink in the aseptic pharmacy and the preparation areas are water free. SDe queried if the sink in aseptic pharmacy is treated. SDo stated that she thought it was and TI agreed that fitting a filter to the sink within aseptic pharmacy would be appropriate on the basis that they supply to such high risk populations. TI also requested that the drains be cleaned.

IP reported that following a request for drains to be cleaned on Friday, he has notified Scottish water of the requirement to do so. IP informed the group that this is necessary before cleaning can be undertaken. He has also looked at appropriate products for use and circulated suggestions by email. Products include chlorine dioxide for the initial drain cleaning decontamination followed by acetic acid for ongoing rolling programme of drain cleaning. TI supported this. Ian Storrar also supported this. It was agreed that all outlet drains will be decontaminated within ward 2A and 2B. IP advised that he would be keen to do this immediately prior to the Hydrogen Peroxide Vapour (HPV) decontamination whilst the patient room is empty. TI advised that it was crucial that the drain cleaning was done before the HPV however she advised that this process should not wait until the proposed HPV planned programme on 11th June which was previously arranged. KC advised that facilities have not been in contact with the HPV company to date. TI reported that she had arranged the HPV cleaning but would not be on site to contact them in the next 48 hours. KC kindly agreed to take this action forward.

KC

Some discussion took place as to when and how the process of HPV can be brought forward and whether it could be carried out quicker than the original time frame of 5 days. If the HPV cleaning could be accelerated, this would involve decant of patients to ward 2C which MH confirmed was possible. IP agreed to check with the company if this was possible but stressed that it may not be. IP suggested that an initial drain clean take place with Actichlor plus 10,000ppm ahead of the full drain clean at the time of HPV which may offer some reassurance. The group agreed that this should take place however HPV should still be accelerated as much as possible. The initial drain clean was expected to be complete tonight into tomorrow morning. JRe also reported that 2B should be brought forward to the weekend before 2A HPV programme rather than the week after. IP agreed to discuss with the HPV company.

IP

IP

IP & AG

SD queried if filters would be changed after the cleaning process for the drains had taken place. AR advised that this should happen. AG and IP agreed to arrange for filter changes.

AG

AR requested that all filters are quality checked again to ensure that they are secure and there is no bypass. AG agreed to do so.

AR also queried if it was safe for patient's to continue to shower. TI responded that the filtered water remains safe to use and she is comfortable that patient's continue to use showers.

SD suggested that if patients were decanted for the HPV process to be accelerated, then the drains in the rooms on the wards to which they were decanted would need to be cleaned first and filters fitted to the taps. IP requested that the decant rooms were sent by email to himself and he would take this forward. MH agreed to do so.

IP
MH

Risk Management/Control Measures – 3. Public health

No public health concerns noted.

Risk Management/Control Measures – 4. Staff

JRe asked how staff were coping with latest developments. MJ stated that they are managing well however morale is very low. JRe asked if support could be provided. JRo reported that IPCNs are visiting daily to offer support.

Care of patients hospital and community

No need to inform external services at this stage. KC queried if drains had been tested anywhere else in RHC. SD stated that they had not but that drain swabbing would be taking place in PICU tomorrow due to an increased incidence of Acinetobacter amongst the PICU population. It was agreed by the group that this was likely to be a site wide problem and that decontamination of drains would need to be prioritised in high risk areas such as PICU and NICU following the programme of works on 2A.

Further Investigations – Epidemiological

Nothing to add beyond the issues discussed above.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the following;

Severity of illness – Major ([REDACTED])

Services – Moderate (Halting new admissions on a case by case basis)

Risk of transmission – Major (uncontrolled source)

Public anxiety – Major (It was noted that the water incident had already caused much concern amongst the public domain).

Communications

SD noted that a press statement has been prepared previously which could be expanded. LD requested that it be sent onto her. TI agreed to do so. AR queried if the press statement would be issued or a holding statement. LD advised that that would depend on how quickly the HPV process could be brought forward and the subsequent impact on the service. SD added that parent information leaflets have been developed. 1 specific to general infection control advice, 1 specific to isolation measures and 1 specific to the HPV process.

TI

SD advised that she will complete the HIIORT and send to HPS. It was noted that HPS were already supporting this incident. AR agreed to update Scottish Government on outcome of today's meeting

SD
AR

AOCB

None noted.

Action list with timescale and allocated responsibility

Summarised by JRe and as per actions noted above.

Date and time of next meeting

Wednesday 6th June at 1pm. Venue to be confirmed.

**Incident Management meeting
Water System Incident
Ward 2A & 2B
Wednesday 6th June 2018**

Present: Dr Teresa Inkster, Lorraine Dick, David MacDonald, Karen Connelly, Jamie Redfern, Jenn Rodgers, Susan McFarlane, Angela Howat, Karen McDowall, Emma Sommerville, Ian Powrie, Colin Purdon, Ian Storrar (phone), Annette Rankin, Susie Dodd, Dr Brenda Gibson, Calum MacLeod (Minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes from the IMT held on Monday 4th of June were agreed with all actions highlighted having been started or already completed.

Incident update – 1. General situation statement

Dr Inkster explained to the group how the drains of sinks can cause a risk to patients using them. She informed the group that the water coming out the taps is clean but when patients/staff are washing their hands the dirty water is going down into the drain. This will include faecal coliforms. A bio-film can start to build up especially if patients/staff dispense iv fluids, tpn, coffee/tea down the drain. When users of the sink turn the tap on the water can disperse the bio-film causing aero-lisation of the bio-film which can spread around the area of the sink. This has been demonstrated in a publication using a red dye which showed that the sink rim can become contaminated. As each sink has a point of use filter attached the water coming from each tap cannot be controlled. The organism can reach the patient via their own hands, hands of healthcare workers or by a contaminated environment. Several published outbreaks have been linked to drains and this is an emerging area in the literature

The organisms found in the drains are not like the organisms which have been found in the water supply they are more faecal type gram negative bacteria.

Incident update – 2. Patient Report

Emma Sommerville reported that a [REDACTED]

At the moment no patients are causing any clinical concern, although Dr Gibson informed the group that this could change [REDACTED] this afternoon.

Dr Brenda Gibson has requested that patients who have currently got severe diarrhoea and are on Cirpoxin could be given an alternative. Dr Inkster informed her that there was no other oral alternative that protects against pseudomonas and patients will only be on this for a very short time, until the HPV cleans are complete. Septrin is an option but using this will risk a lack of cover for Pseudomonas

There is an impact on patient treatment, so far there has been 5 patients that have had their treatment delayed due to this recent IMT. [REDACTED]

[REDACTED] It was agreed that this data should be captured. Angela Howat will provide this info.

Incident update – 3. Microbiology report

To date so far there has been

5 enterobacter bacteraemia, 3 out of 4 have unique strains, with 1 awaiting result. 1 did not go for typing. Dr Inkster thinks that the source is the drains due to links in time, place, person.

8 Stenotrophomonas bacteraemia each have a unique strain. This shows that this organism is not being passed from patient to patient. [REDACTED]

[REDACTED] Screening for Stenotrophomonas has taken place. Microbiology results from the water, chilled beams, and drains have all come back negative for this organism. The next route to take is to explore the pharmaceutical route where production of the TPN and chemo is carried out. Susie Dodd is currently in contact with Joanne Gallagher regarding this. Dr Inkster is also investigating if the use of Meropenem could be the cause and is currently awaiting data from the pharmacy department regarding this. Further screening will not be undertaken at this time unless there are further cases as we are now cleaning with HPV

SD/JG
TI

3 Pseudomonas aeruginosa bacteraemia. This organism has been found in the drains but not in the water. So far typing results have come back for 2 cases but awaiting results from the 3rd.

There has been 1 case of acinetobacter bacteraemia within the ward.

3 cases of Cupriavidus bacteraemia, drains positive but water is not after filters fitted.

Drain tests have also found Sphingomonas, Klebsiella oxytoca, Pantoea and Kluyvera. Dr Inkster will look at data for Klebsiella and these others

Susie Dodd informed the group there is also an issue regarding 3 HAI Rotavirus patients within a 3 week period. Potential cross transmission due to a short period of time IPCT looking into parent room and practice of parent in particular.

Incident update – 4. other relevant reports

No other reports since the last meeting.

The Infection Prevention & Control Team (IPCT) are going to carry out peer audits over the next 2 months focussing on SICPs, TBPs and the environment. These will be carried by IPCT members not usually on this site so unknown what time/date these will be carried out.

IPCT

Annette Rankin informed the group that the government approached HPS to undertake a proper formal review of Ward 2A and Ward 2B. HPS are keen to understand what the difference is between the new RHC and the old Yorkhill site. They will look at epidemiology of patients, staff, current policies in use. At the moment there is no scope of reference but HPS will be in contact with Great Ormond Street and Alderhay Hospital who deal with a similar patient population. Annette Rankin will write this up and give a copy to Dr Inkster who read over this for factual accuracy before being submitted to the government. Jamie Redfern and Jenn Rodgers have asked for a formal timeline and scope of this review from Annette Rankin.

AR

Risk management/Control Measures

Hydrogen Peroxide Vapour (HPV) measures

The HPV clean started last night in Ward 2A at 17:30. By close of play today 13 rooms should be completed out of the 40 rooms identified within Ward 2A. More rooms would of been completed but due to high levels of humidity within the rooms (>40%) a dehumidifier was needed to bring it down.

The plan for having all 40 rooms complete by Friday is currently not on schedule. Colin Purdon is going to contact the worker to see when they estimate completion of the works and also ask if they could work double shifts if required during the weekend while Ward 2B is closed. Dr Inkster wants each ward complete before moving onto a new ward so that the risk of someone using a dirty room then entering a clean room is minimised. If work cannot be finished on time then a risk assessment can be drawn up regarding this.

CP

Dr Gibson raised her concern as to why the rooms were so humid in the first place. Each room has got 3 air changes per hour, ideally it should be 6 but there is a chilled beam technology which should reduce the number of ait changes required for each room. Dr Inkster said this is an action that will need to be looked into further down the line once the cleaning has been complete, to see if improvements can be made.

TI

Drain Measures

Cleaning of the drains within ward 2A was commenced on Monday evening using 2 litres of an Actichlor solution of 10000 parts per million. This did not disturb the black bio film so a brush was used to aggravate it. Samples were taken of the bio film and sent to Microbiology. Facilities have also taken samples from the pipe work and sent away for testing.

Dr Inkster has requested that regular sampling and a weekly drain cleaning program should be put in place. Dr Inkster requested that acetic acid should be used instead of an Actichlor solution so that any bio-film can be washed away. Ian Powrie said there could be a problem with the smell of using a high strength ascetic acid which usually comes at 24% and was wondering if this could be decreased to a less potent strength. Also unknown if the PVC pipe work would sustain weekly cleans with ascetic acid so Ian Powrie is going to check on this. It was agreed this will be discussed in more detail at the water group meeting on Friday.

TI/IP

IP

Sink hygiene

Dr Inkster discussed the importance of sink hygiene. Need to ensure they are only used for hand hygiene. Also need to ensure toothbrushes and toiletries are not stored on sinks. Need to discuss this with parents and send a memo to staff.

Handwashing

Dr Inkster discussed the importance of hand hygiene. Annette Rankin suggested use of Chlorhexidine for hand hygiene. Staff expressed concern in relation to skin irritation. It was agreed not to implement this at the moment. Dr Inkster suggested discussing with Stefan Morton, Hand hygiene coordinator

TI/SM

Hypothesis

The group are going to look at the possibility of the sink design and the current HTM64 guide lines for CHWB.

The drainage system will be looked more in depth this Friday at the water group. They will discuss the role of the drainage trap.

Further Investigation

Facilities and Dr Inkster are going to find a CHWB (not in ward 2A or 2B) and do some investigation with putting dye down the drain and then running the tap. Air sampling will be taken to see if anything is coming back up from the drain.

TI/IP

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed a score of RED after the group deciding

Severity of illness – Major

Services – Moderate (internal disruption in terms of decant process and any patient requiring admission)

Risk of transmission – Moderate

Public anxiety – Moderate (there has been media interest)

Ward 2A is still closed to admission but admissions are risked assessed on a case to case basis by clinicians. There have been patients for treatment deferred but extra beds have been reserved for around the hospital to compensate this.

Communications

Media

The press office were approached by the Evening Times so a press statement was released yesterday. Media have ran exactly what was put out with the addition of some quotes from patients parents. So far there has been no media interest today. No media update will be sent out today but may get some follow up questions from the media in the next days.

Advice to Public

Information was given to parents who have patients in Ward 2A and Ward 2B regarding the HPV clean.

TI

HPS

Scottish government have a list of questions sent to HPS which Annette Rankin and Dr Inkster will answer.

AR/IK

Assurances moving forward

Jamie Redfern asked what assurances we would have moving forward and how progress would be monitored. Dr Inkster explained that this would entail expanded infection control surveillance for all the bacteria found. In addition we need to discuss domestic monitoring and ICN input. Dr Inkster stressed the importance of maintaining high standards after all the cleaning work.

Jamie Redfern updated the group about the executive group chaired by Kevin Hill which will meet every Friday. Reports will be received from the water group, service group and infection control IMTs

AOCB

If a patient from Ward 2A is moved down in PICU they do not need to be given prophylaxis antibiotics.

Date and time of next meeting

Friday 8th June at 1500 in Conference Room GWS-008, Level 3, RHC

Action list with allocated responsibility

- | | |
|--|--------------|
| 1. Susie Dodd is in contact with Joanne Gallagher regarding the pharmaceutical route where production of the TPN is carried out. | SD |
| 2. Dr Inkster is also investigating if the use of Meropenem could be the cause and is currently awaiting data from the pharmacy department regarding this. | TI |
| 3. The Infection Prevention & Control Team (IPCT) are going to carry out peer audits over the next 2 months focussing on SICPs, TBPs and the environment | IPCT |
| 4. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. | AR |
| 5. Colin Purdon is going to contact the worker to see when they estimate completion of the works and also ask if they could work double shifts if required during the weekend while Ward 2B is closed. | CP |
| 6. Investigation in to why rooms are too humid will be looked into. | IP |
| 7. Regular sampling and a weekly drain cleaning program should be put in place. | IP/TI |
| 8. Ian Powrie to see if the PVC pipe work would sustain weekly cleans with ascetic acid. | IP |
| 9. Facilities and Dr Inkster are going to find a CHWB (not in ward 2A or 2B) and do some investigation with putting dye down the drain and then running the tap. Air sampling will be taken to see if anything is coming back up form the drain. | TI |
| 10. Dr Inkster will speak to some of patients parents who have raised their concerns about various issues. | TI |
| 11. Dr Inkster and Annette Rankin will answer the list of questions sent by the Scottish Government. | TI/AR |
| 12. Dr Inkster will look at data or Klebsiella and other bacteria | TI |
| 13. Angela Howat will provide info on delays/cancellations to treatment | AH |
| 14. Dr Inkster will discuss Chlorhexidine with Stefan Morton | IK |
| 15. Brief to staff regarding sink hygiene to be discussed further | IK |

**Incident Management meeting
Increased Incidence of Acinetobacter within PICU
Wednesday 6th June 2018**

Present: Dr Teresa Inkster(chair), Susie Dodd, Jamie Redfern, Jenn Rodger, Kathleen Harvey Wood, David MacDonald, Karen Connelly, Colin Purdon, Dr Neil Spenceley, Kirsty McCool, Calum MacLeod (minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Appropriate Membership

It was agreed that all the necessary disciplines/departments were present or represented at the meeting.

Declarations of conflict of interest

None declared.

Items not on the agenda

The group agreed that there were no missing agenda items.

Incident update – 1. General situation statement

6 cases in total of acinetobacter have been identified since the 18th of February 2018.

Typing has come back which indicates there is a predominant strain which is linked to a previous cluster of acinetobacter in October/November 2017 where no source was ever found.

Incident update – 2. Patient Report

4 patients are currently spread across the unit. There is a definitive link between two patients who had beds adjacent to each other in room [REDACTED].

No patients are giving any cause for concern.

Incident update – 3. Microbiology report

Acinetobacter itself can survive in dust and in water and is really hard to eliminate from the environment. Suggests issue with environment and also cross transmission by either shared equipment and/or poor hand hygiene.

Actions

Incident update – 4. other relevant reports

Water has been tested which has come back negative.

Drains have been swabbed due to an ongoing issue in Ward 2A which came back with a lot of gram negative organisms. It was agreed that swabs of the drains will be taken and will also be cleaned due to the nature of the patients within the ward. The cleaning of the drains is to commence later on today.

CP/KC

Risk Management/Control Measures – 1. Patients

Susie Dodd is going to look into staff practice focussing mainly on BAL practice, line care, and making sure everything used on patients is single use or has a robust cleaning regime in place.

SD

Risk Management/Control Measures – 2. General

After the last IMT in PICU regarding increase incidence of acinetobacter, environmental swabbing was carried out in March 2018, which found it present on a baby bath but after further investigation it was proven that this was never used on any of the infected patients from the cluster in 2017.

A total of 3 trough sinks identified in a previous IPCT meeting were to be removed from the corridor and placed into rooms. Karen Connelly will follow this up with Willie Madden who was dealing with this.

KC

Neil Spencer asked what are the risks of having a trough sink at the front of the rooms as it is a great reminder for staff to practice hand hygiene. Susie Dodd is to speak to Stefan Morton Hand Hygiene Co-ordinator regarding this.

SD

It was identified that there wasn't enough Single Side Rooms to accommodate all patients. Some patients are nursed in open bed bays but TBPs seem more stricter while patients are in Single Side Rooms.

Patient equipment that is shared between patients like echo, ultrasound and x-ray machines have been highlighted. Susie Dodd will contact Stewart Lilley who will inform them what cleaning regime these machines have.

Gael Rolls provides Pat Coyne with a list of beds that need twice daily cleans within the ward every morning.

The group raised no concerns about current antibiotic usage for the patients.

The last local hand hygiene audit carried out by Stefan Morton scored 95% compliance.

Domestic audit scored a high 80% score so IPCT met with Pat Coyne due to cleaning of high pendants. IPCT shared the SOP of cleaning of high pendants and Karen Connelly will follow this up with Pat Coyne to see if this is being undertaken.

KC

Risk Management/Control Measures – 3. Public health

No public health concerns noted.

Risk Management/Control Measures – 4. Staff

Dr Spenceley raised his concerns about the lack of nursing and domestic staff which could be a marker to show why this has happened. There has been times when there hasn't been enough staff to do one to one care for patients. Jenn Rodgers informed the group that Gael Rolls is working on having familiarisation training for staff who are being moved between wards during staff shortages. Jenn mentioned that nursing numbers have improved recently within the RHC with an influx of new nurses starting within the next few months.

Further Investigations – Epidemiological

Microbiology awaiting typing results.

Drain samples will be taken in PICU.

IPCT to investigate BAL practice.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the following score of GREEN;

Severity of illness – Minor

Services – Minor

Risk of transmission – Moderate (as unknown source)

Public anxiety – Minor

Communications

A report regarding this situation will be sent to HPS on Monday by Susie Dodd.

Dr Inkster has been requested to speak to a patients relative regarding any relation to this and the water incident in Ward 2A.

AOCB

If the ward has another Acinetobacter then each case will be risk assessed and treated on a case to case basis with advice from the Microbiology regarding what antibiotics to use.

Date and time of next meeting

It was agreed that no further meetings will be scheduled unless any new cases are reported.

SD

IK

Action list with timescale and allocated responsibility

- | | |
|---|-------|
| 1. It was agreed that swabs of the drains will be taken and will also be cleaned due to the nature of the patients within the ward. The cleaning of the drains is to commence later on today. | CP/KC |
| 2. Susie Dodd is going to look into staff practice focussing mainly on BAL practice, line care, and making sure everything used on patients is single use or has a robust cleaning regime in place. | SD |
| 3. Karen Connelly will follow up the removal of trough sinks within PICU with Willie Madden. | KC |
| 4. Susie Dodd is to speak to Stefan Morton Hand Hygiene Co-ordinator regarding the benefits of removing trough sinks which are outside patient rooms. | SD |
| 5. Karen Connelly will follow this up with Pat Coyne to see if high pendant cleaning is being undertaken within the PICU this is being undertaken. | KC |
| 6. A report regarding this situation will be sent to HPS on Monday by Susie Dodd. | SD |
| 7. Dr Inkster has been requested to speak to a patients relative regarding any relation to this and the water incident in Ward 2A. | IK |

**Incident Management meeting
Water System Incident
Ward 2A & 2B
Friday 8th June 2018**

Present: Dr Teresa Inkster, Sandra Devine, David MacDonald, Sharon Johnstone Sarah Hall, Colin Purdon, Jenn Rodger, Dr Iain Kennedy, Annette Rankin, Angela Johnson, Lynne Kennea, Jamie Redfern, Emma Sommerville, Andrew Wilson, Susan MacFarlane, Dr Brenda Gibson, Melanie Hutton, Karen Mitchell, Joanne Gallagher, Ian Storrar (via telephone), Calum MacLeod (Minutes)

Apologies: Karen Connelly

Actions

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes from the IMT held on Wednesday 6th of June were agreed.

Incident update – Patient Report

[REDACTED]

[REDACTED]

No other patients are giving any cause for concern.

Incident update – 3. Microbiology report

No new bacteraemia cases that could be linked to this issue have been reported since the last meeting.

Dr Inkster did a retrospective look back of all bacteraemia cases from Ward 2A from the past 6 months and found [REDACTED] Pantoea [REDACTED]. This gram negative organism was also found in the drains. Dr Inkster will follow up on patient details and see if there is any link to the current incident.

In regards to the increase of Stenotrophomonas cases Dr Inkster looked into the use of meropenem within ward 2A and found a definite spike in usage in the first part of 2018. Dr Inkster has requested her colleague Dr Alison Balfour to carry out an audit as to why their usage of meropenem is risen but the usage of gentamicin has dropped in recent months and is there anything which can be done to combat this.

IK

IK

AB

Joanne Gallagher has carried out a cross check on the pharmaceutical process of production of where TPN is carried out for all patients. She found a few commonalities but nothing of which was significant. Joanne confirmed that Stenotrophomonas has never been found in the sinks/drains with pharmacy. Dr Inkster said this line of investigation is now complete.

So far 9 cases of Stenotrophomonas have been reported but with no obvious source. All have come back with different typing results.

To recap the group have checked the chilled beams, water source, air samples, pharmacy and drains. Monitoring and continued surveillance of patients will continue.

Incident update – 4. other relevant reports

Sandra Devine has organised peer audits of ward 2A for every week including evening and night time which will be carried out over the next 6 weeks.

Angela Johnson and Lynne Kennea did walk round of Ward 2A this morning and noticed it much cleaner, de-cluttered and less traffic of people within the ward.

Hypothesis

Dr Inkster spoke to Ian Storrar regarding the current water filters fitted to every CHWB as most patient cases have appeared post filter. Ian Storrar has contacted Public Health England about any research on the introduction of the water filters to CWHB but most of it is lab based research and not carried out in an active environment.

Dr Inkster and Colin Purdon will try and replicate the system we have in order to do carry some scenarios of using a CHWB with the filter in place. A dye will be poured down the drain to enable air sampling of any aero-lisation that is taking place while using the sink.

TI/CP

Risk management/Control Measures

Hydrogen Peroxide Vapour (HPV) measures

Colin Purdon showed the group a plan of Ward 2A rooms that have been HPV cleaned as of 12 o'clock today. The ward should be finished by midnight today. This means Ward 2B can be done over the weekend so that no cancellations can be made for Monday.

Jamie Redfern raised the issue if the HPV clean is not finished in Ward 2B by Sunday night then is there any contingency plan. Melanie Hutton informed him that there is a plan if the work goes over the planned timeline where chemotherapy patients will go into Ward 2A and other patients requiring blood etc will be seen in wards throughout RHC.

Colin Purdon reported on the issue regarding humidity within Ward 2A. Ian Powrie walked around the ward with a barometer which gave him readings of below 40%. Ian Storrar informed the group that having a humidity of 40% during this time of year is normal.

Ian Powrie has also spoke to the manager of the HPV company who said that the machines do work in humidity 70% and lower and that the reason the machine did not work earlier was due to it detecting vapour leakage within the room due to loose ceiling tiles.

Colin Purdon will look into the reports from staff of high temperatures (27 degrees) throughout the ward.

Dr Kennedy asked if there will be any re-sampling taken place after the HPV has been complete. Dr Inkster said they will not be any re-sampling as they rely on continued surveillance of patients and if no new cases reported or fewer cases then clean has been successful. A decision on how often HPV cleans are to be carried out within the unit is to be determined at a later date as they cause a lot of disruption to the ward.

TI

Drain Measures

Colin Purdon showed the group an unused waste pipe that has been fitted to all sinks within the RHC. It showed an exposed metal part of the pipe attached to a plastic pipe with a silicon seal around the joint. Colin then produced a pipe that had been taken out of an existing CHWB within a room in ward 2A which showed a thick bio film around the joint and inside the pipe as well as signs of corrosion to the metal.

Colin spoke about the pipe work and said the most recent version does not have exposed metal parts so no water/chemicals etc will be in contact with metal parts.

Dr Inkster is going to follow up testing of this pipe with Ian Powrie.

TI/IP

Colin Purdon will send Ian Storrar photographs of the connecting pipes from the drains.

CP

Dr Inkster has proposed that all drains within high risk areas should be replaced with this updated version of pipe work. Jamie Redfern stated that this would be taken to the executive meeting to discuss.

DR Inkster updated from the water group meeting. Chlorine dioxide dosing will be implemented and both shock dosing and continuous dosing will take place. Tap replacement cannot take place until dosing has commenced.

In the meantime this to be taken to an executive meeting to see if the implementation of chlorine dioxide can be speeded up. Also a decision on what to do at the meantime would be made at the executive meeting as any implications will have a knock-on effect to the whole RHC and QEUH campus.

Sink hygiene

Dr Inkster has sent a memo to Alan Mathers who has disseminated to the medical staff and nursing staff regarding a general update on the water situation with a paragraph at the end reminding staff about sink hygiene and that nothing should be kept on the sink.

Hand washing

Dr Inkster spoke to Stefan Morton hand washing co-ordinator for GG&C and agreed the introduction of Chlorhexadine will not be introduced as a precaution due to staff suffering skin irritations.

The HIAT was explained and the content of each classification read out. The group agreed a score of RED after the group deciding

Communications

Media

No plans to release any media update.

Advice to Public

Parents with Ward 2A and ward 2B received an update on what is going on regarding the HPV process.



HPS

Annette Rankin informed the group that there has been a lot of activity from the Scottish Government surrounding this. Annette has been updating the government on a daily basis regarding the current situation.

AOCB

Dr Gibson chaired a meeting on Monday with her medical colleagues and asked them if they had any concerns/issues in Ward 2A. They have since come back saying they are not confident we are in control of the environment as there have been numerous issues surrounding Ward 2A since its opening. Dr Inkster, Dr Gibson and Jamie Redfern are meeting the medics/surgeons after this IMT to discuss their concerns.

TI/BG/JR

Date and time of next meeting

Monday 11th June at 1500 in Conference Room GWS-009, Level 3, RHC

[REDACTED]

TI

Dr Inkster will follow up on [REDACTED] a Pantoea bacteraemia [REDACTED].

TI

Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites.

AR

Ian Powrie to see if the PVC pipe work would sustain weekly cleans with asetic acid.

IP

Facilities and Dr Inkster are going to find a CHWB (not in ward 2A or 2B) and do some investigation with putting dye down the drain and then running the tap. Air sampling will be taken to see if anything is coming back up form the drain.

TI/CP

Colin Purdon will look into the reports from staff of high temperatures(27 degrees) throughout the ward.

CP

A decision on how often HPV cleans are to be carried out within the unit is to be determined at a later date as they cause a lot of disruption to the ward.

TI

Dr Inkster has proposed that all drains within high risk areas should be replaced with this updated version of pipe work.

TI

Dr Inkster is going to follow up testing of this pipe with Ian Powrie.

TI/IP

Colin Purdon will send Ian Storrar photographs of the connecting pipes.

CP/IS

Dr Alison Balfour to carry out an audit into the usage of meropenum with Ward 2A.

AB

In the meantime this to be taken to an executive meeting to see if the tap replacement can be speed up. A decision on what to do at the meantime would be made at the executive meeting as any implications will have a knock-on effect to the whole RHC and QEUH campus.

TI

Dr Inkster, Dr Gibson and Jamie Redfern are meeting medics/surgeons after this IMT to discuss their concerns.

TI/BG/JR

**Incident Management meeting
Water System Incident
Ward 2A & 2B, RHC
Monday 11th June 2018**

Present: Dr Teresa Inkster, Sandra Devine, Sharon Johnstone, David MacDonald, Jenn Rodgers, Colin Purdon, Emma Sommerville, Susan Macfarlane, Susie Dodd, Mary Anne Kane, Alan Gallacher, Annette Rankin, Melanie Hutton, Jamie Redfern, Dr Brenda Gibson, Stephen Bowhay, Dr Iain Kennedy, Calum MacLeod
(Minutes)

Apologies: Lorraine Dick, Ian Storrar

[Actions](#)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Conflicts of Interest

Dr Inkster informed the group that Annette Rankin a member of the Incident Management [REDACTED]. No one within the group had a problem with that.

Minutes of the last meeting

The minutes from the IMT held on Friday 8th were sent out. If anyone has any comments can you please email them to Dr Inkster & Calum MacLeod.

Incident update – Patient Report

There is currently no patients giving anyone cause for concern and no positive blood cultures over the weekend.

[REDACTED]

Dr Gibson raised her concerns regarding the current uncertainty within ward 2A and has already had to delay [REDACTED] bone marrow transplant patients. She also added that with no confirmed timeline of when ward 2A will be ready to admit transplant patients it is not possible to plan ahead any cases which in turn has a knock on effect to other patients.

Incident update – Microbiology report

Dr Inkster looked into the [REDACTED] Pantoea [REDACTED] which was picked up from a look back exercise. The patient had already been included in the patient numbers so HPS do not need to report on this.

Awaiting typing from drain swabs to see if any linked to patients.

Incident update – 4. other relevant reports

No other reports since the last meeting.

Hypothesis

Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running.

TI/CP

Risk management/Control Measures

Hydrogen Peroxide Vapour (HPV) measures

HPV clean was completed on schedule. Dr Inkster spoke to the HPV cleaning manager who asked her to pass on his praise for the kind staff and all their help.

Drain Measures

Mary Ann Kane informed the group that all drains have been cleaned with ward 2A and 2B as part of the agreed HPV process.

Mary Ann Kane has looked into the feasibility to change over to plastic wastepipe drains and it was suggested decanting existing patients from Ward 2A into Ward 4B, QEUH. It was agreed that this would be too disruptive and time consuming for the patients to move over to the QEUH. The group decided that patients will remain in ward 2A and will move around within the ward while work is being carried out on replacing the waste pipelines.

The new drainage parts will be arriving at 9am tomorrow morning and if all goes ahead then the fitting can begin tomorrow at 10am. The process to replace the waste pipeline involves removing the IPS panel from the wall, replacing all waste pipeline parts with new plastic ones. Once each room has been fitted with the new pipeline, a clean of the room will be carried out, following a HPV clean of each room. Dr Inkster informed the group that the HPV clean will only be carried out in the patient cubicle.

Dr Inkster and Dr Gibson will look at the list of patients currently awaiting to be admitted to Ward 2A and agree on a case by case basis to see what patient should be admitted

Sink Hygiene

All clinical teams have been alerted only to come into Ward 2A if necessary.

Susie has pulled together a Standard Operating Procedure surrounding sink hygiene in which she has disseminated to parents/patients.

It was agreed that the HPV information should be re-issued to patients/parents as the process will be restarting again.

Further Investigation

Epidemiology

The HPS walk round of Ward 2A to look at practice has been delayed due to the ongoing waste pipe replacement work which will be ongoing for the remainder of the week.

Annette Rankin will draft a scope of this visit and share within the group.

AR

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the score should remain a RED.

Communications

Media

Dr Inkster will call Lorraine Dick from the Media department to update her.

Advice to Public

Dr Inkster will draft a statement for families who have children already in ward 2A explaining what works will be going on. This will be used as a draft so that Dr Gibson can use it to inform patients why their treatment is being delayed.

IK

Staff

Dr Inkster and Dr Gibson met with concerned doctors within Ward 2A to discuss their concerns and wanted to know what precautions have been put in place. Dr Inkster says the doctors feel a lot more reassured now they know what measures have been taken and what their long term plan is.

Guidance to staff regarding this incident will be re-issued to surgeons

SD

Jamie Redfern informed the group that he has to report to Edinburgh Sick Children's Hospital management regarding the situation at RHC as they will need to know in advance if their help is needed regarding any patients.

HPS

Annette will update the Scottish government after this meeting.

Assurance Moving Forward

IPCT will have enhanced surveillance for blood cultures and alert organism as per national manual.

No screening of the environment will be undertaken in the absence of patient cases.

Water testing will be carried out once the introduction of chlorine dioxide is introduced to the water system.

Air sampling will also be carried out which will pick up on any fungal issues.

IPCT will carry out peer audits once ward is back to normal

Facilities will maintain the extra domestic hours, a weekly report outlining the daily audit/checking of domestic cleaning is sent to Jamie Redfern every Friday unless any significant issue arises then contact him immediately.

Mary Anne Kane will review the current domestic hours to adult wards compared to the domestic hours at the paediatric ward. Mary Ann informed the group that she was asked to keep the same amount of domestic hours from the old Schiehallion ward at Yorkhill and move it over to the new ward 2A, RHC.

David MacDonald will look into having a vending machine installed within the ward instead of having water coolers.

AOCB

Dr Inkster confirmed that the case definition for this incident is every gram negative positive patient that microbiology has found in either the water or the drains.

Dr Inkster confirmed that the drains within ward 2B will be replaced once ward 2A has been completed.

Date and time of next meeting

Next meeting is being held on Tuesday 12th June at 1500 in OPD0-063 OPD Seminar Room. Level 0, QEUH

Action list with allocated responsibility

1. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. **AR**
2. Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running. **TI**
3. A decision on how often HPV cleans are to be carried out within Ward 2A is to be determined at a later date. **TI**
4. Dr Alison Balfour will carry out an audit regarding the usage of meropenem within Ward 2A **AB**
5. Annette Rankin will draft a scope of the proposed HPS visit to Ward 2A share within the group. **AR**
6. Dr Inkster will draft a statement for families who have children already in ward 2A explaining what works will be going on. This will be used as a draft so that Dr Gibson can use it to inform patients why their treatment is being delayed. **TI**
7. Guidance for staff regarding this incident will be re-issued. **SD**
8. Mary Anne Kane will review the current domestic hours to adult wards compared to the domestic hours at the paediatric ward **MAK**
9. David MacDonald will look into having a vending machine installed within the ward instead of having water coolers. **DM**

**Incident Management meeting
Water System Incident
Ward 2A & 2B, RHC
Tuesday 12th June 2018**

Present: Dr Teresa Inkster, Annette Rankin, Stephen Bowhay, Emma Sommerville, Melanie Hutton, David MacDonald, Alan Gallacher, Sandra Devine, Colin Purdon, Susie Dodd, Sharon Johnstone, Fiona Callan, Jenn Rodgers, Jamie Redfern, Ian Storrar (telephone), Calum MacLeod (Minutes)

[Actions](#)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes from the IMT held on Monday 11th June were sent out. Susie Dodds has requested some amendments to the minutes which she will send onto Calum MacLeod.

Incident update – Patient Report

[REDACTED]

[REDACTED]

[REDACTED]

Incident update – Microbiology report

Dr Inkster informed the group that all Enterobacter cases that have been identified in this incident have come back as different strains(4 out of 5 sent for typing) This does not include the case above.

Incident update – other relevant reports

Susie Dodd did a walk round of ward 2A today and found the general cleanliness of the environment very good.

Hypothesis

Dr Inkster explained that the hypothesis to date has been based on literature reviews and discussion with experts. Dr Inkster will continue to speak to Suzanne Lee regarding this incident for her knowledge and expertise.

Risk management/Control Measures

Hydrogen Peroxide Vapour (HPV) measures & Drain Measures

By the end of today 10 rooms will have had their waste pipes replaced and rooms HPV cleaned.

Colin Purdon said that the waste pipelines are all looking like the one shown to the group last Friday. Dr Inkster has requested that some of the old pipes taken out should be kept for analysis. Colin Purdon will action this.

Dr Inkster has requested that ward 4B in the QEUH should be prioritised next as the BMT patients are due to move over to this ward on the 30th of June. Dr Inkster said it would be good to compare the drains within each ward (Ward 2A, RHC and Ward 4B, QEUH), even although ward 4B has been lying dormant for some months estates still simulate water usage twice a week within the ward.

Showers

A patient has raised a concern regarding water not draining from showers within patient rooms. Colin Purdon and Alan Gallacher have been up to the ward and look at the shower drains. They did not see any issue with the drains in question. Facilities will carry out a look back exercise on their reporting system regarding shower drains within ward 2A to see if anything has been raised in the past. There has been no feedback from staff regarding showers drains backing up.

Colin Purdon informed the group that a Chlorine Dioxide dosing of the shower drains was carried out prior to the first HPV clean. Currently there is no program for shower drain cleaning as this is not in the guidance.

Staff should assure the patient we have done something regarding the shower drains but will need to check beforehand that there is no problem with the drains. Facilities will check this.

Further Investigation

Epidemiology

Probably be next week for HPS to carry out a walk round of ward 2A.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the score should remain a RED due to new case query and shower drains query.

Communications

Advice to Public

Emma Sommerville will print off the advice given by Dr Inkster and give to patients and parents.

Staff

Dr Inkster has received 2 queries from NHS Lothian, one from a senior clinician and the second from a paediatric microbiologist.

New build in progress and some issues relate to this what are agencies are doing to alert NHS Lothian. HPS are not doing anything at the moment until they know what is the root cause of this incident.

Going through the commissioning period have not requested HFS for advice. Are GG&C not obliged to alert NHS Lothian to potential problems?

Jamie Redfern will speak to Kevin Hill to relate to Dr Armstrong (Director) so that a director to director conversation can happen. HPS are not obliged to inform other boards about their problems due to confidentiality laws.

Jamie Redfern has been in contact with NHS Lothian director to discuss a prioritised list of patients to see if things did not go to plan at the RHC. It was discussed would they have the ability to take some urgent cases.

HPS

Annette will update the Scottish government after this meeting.

Assurance Moving Forward

David MacDonald will discuss domestic provision with Mary Ann Kane . It was noted that the adult BMT ward has 20 more domestic hours however the paediatric ward is a more challenging setting .

AOCB

Drain testing frequency and cleaning will be discussed at this Fridays water group as there is a need to come to consensus as how often it should be carried out.

Matching up available rooms within ward 2A to the priority patient list that the clinicians have agreed will start tomorrow. Melanie Hutton and Emma Sommerville will discuss with Dr Gibson about what patients are needing admitted and what rooms can be left empty so that the agreed pipe work and HPV cleaning can be carried out.

[REDACTED]

TI requested timescale to be applied to each action from the IMT

Date and time of next meeting

Next meeting is being held on Friday 15th June at 1500 in Conference GWS-008, 3rd Floor, RHC.

Action list with allocated responsibility

- | | |
|---|-------|
| 1. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. – to update following HPS meeting on Thursday 13//6/18 | AR |
| 2. Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running. To complete by Friday 22nd June | TI/CP |
| 3. A decision on how often HPV cleans are to be carried out within Ward 2A is to be determined at a later date. Ongoing | TI |
| 4. Dr Alison Balfour will carry out an audit regarding the usage of Meropenem within Ward 2A To complete by end July 2018 | AB |
| 5. Annette Rankin will draft a scope of the proposed HPS visit to Ward 2A share within the group. To complete by Friday 15th June | AR |
| 6. Colin Purdon will keep some of the removed waste pipelines for future analysis. Complete | CP |
| 7. Ward 4B within the QEUH will be prioritised next after Ward 2A has been completed. To complete by June 30th | CP |
| 8. Emma Sommerville will print off the advice given by Dr Inkster and give to patients and parents. To complete by Friday 15th June | ES |
| 9. David MacDonald will contact Mary Anne Kane regarding a review of the current domestic hours to adult BMT wards compared to domestic hours within a BMT Paediatric ward. To complete by Friday 15th June | DM |
| 10. David MacDonald will look into having a vending machine installed within the ward instead of having water coolers. Complete by end June 2018 | DM |

**Incident Management meeting
Water System Incident
Ward 2A & 2B, RHC
Thursday 14th June 2018**

Present: Jamie Redfern (chair), Dr Aleksandra Marek, Colin Purdon, Andy Wilson, Mary Ann Kane, Alan Gallacher, Jenn Rodgers, Annette Rankin, Sandra Devine, Sharon Johnstone, David MacDonald, Emma Sommerville, Dr Brenda Gibson, Stephen Bowhay, Susan McFarlane, Calum MacLeod (Minutes)

Apologies: Dr Teresa Inkster, Susie Dodd, Dr Iain Kennedy, Angela Johnson, Ian Storrar

Actions

Welcome, Apologies, Introductions

Jamie Redfern welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs. This IMT was asked by the executive group to meet today due to any actions requested during the proposed Friday's IMT may not be actioned over the weekend.

Minutes of the last meeting

The minutes from the IMT held on Tuesday 12th June were sent. If anyone has any comments or amendments regarding these minutes can you please inform Dr Inkster and Calum MacLeod.

Incident update – Patient Report

Jamie Redfern has been asked by the Executive committee for more information on the patients surrounding this incident as recent meetings have been focussing on estates and facilities issues and not a patient perspective.

There are currently [REDACTED]

[REDACTED]

[REDACTED]

Calum MacLeod will send out to the IMT group a timeline created by the Paediatric IPCT outlining the 6 confirmed enterobacter cases identified during this incident to date.

CM

Annette Rankin will send a timeline compiled by HPS outlining all 17 cases from January 2018 who have been involved in the water incident. The group asked if this timeline could be split from the current cases of patients still in hospital to the historic cases from when the water incident started back in January and patients have since been discharged.

AR

Recovery of the chemotherapy program is catching up, Jamie has requested a list of all patients who have had their chemotherapy delayed and is still outstanding be available for tomorrow's IMT.

Ward 2A is still open for admissions but keeping them to a minimum as 5/6 rooms are needed to be empty to decant patients while the HPV clean is being undertaken. On Monday Ward 2A will be finished along with ward 2B where the drain replacement and HPV cleaning will be undertaken over the weekend while the ward is closed.

Concern regarding what patients should be included in the official numbers regarding this IMT was discussed as some patients are not fitting the criteria and Dr Gibson thinks they should be included in the final numbers. The group have requested that case definition should be added onto the agenda for tomorrow meeting.

Incident update – Microbiology report

Nothing additional to report. Confirmed case that was pending from last IMT.

No new cases for consideration since the last IMT.

Incident update – other relevant reports

Sandra Devine informed the group that the IPCT have visited ward 2A everyday this week. They have picked up a few minor domestic issues like the cleaning of a clock and a cupboard but this was highlighted and rectified at the time of visit.

David MacDonald will send his weekly report regarding domestic cleaning to Jamie Redfern as agreed in previous IMT meetings.

The water group is meeting tomorrow afternoon where agreements surrounding some outstanding actions for this incident may be resolved.

Shower Drains

Facilities carried out a walk round of the showers within Ward 2A after the last IMT and found nothing out of the ordinary. They checked the Facilities reporting system for any historic problems reported regarding shower drains and found 11 since January 2018. No pattern on room numbers were identified with Room 19 coming up twice but no issues have been found surrounding water not draining from the showers.

Jamie Redfern summarised estates is aiming for Monday morning to have all key environment actions to be in place by Monday 18th June 2018. Sink drains will all be replaced within the unit with all rooms / cubicles through a second HPV program. It was confirmed that water issues remained under control through effective use of filters. Jamie Redfern also confirmed that all domestic and professional practice was being proactively reviewed and all feedback from this was positive Jamie Redfern therefore asked the group if anyone felt there were immediate outstanding actions still to be completed which would suggest the ward could

not return to normal admission criteria before the incident started. All were happy that the environment would now be under control within current situation awareness of both wards. This position would be confirmed further at the next IMT meeting on Friday with Theresa Inkster present. This position would also be relayed to the Executive Group chaired by Kevin Hill.

To date 17 patient rooms have been completed in Ward 2A which is currently on track for completion.

Risk management/Control Measures

Patients

Staff are minimising opening lines

Patients are still taking prophylaxis antibiotics as a precautionary measure which will hopefully be stopped by Monday when the drainage works have been completed.

General

The IPCT are currently looking at all lines inserted in patients within Ward 2A during this incident.

Jenn Rodgers and Melanie Hutton are going to visit a similar ward over at the Beatson to see its current settings and see if anything differences between an adult BMT ward compared to a paediatric ward.

Next week the peer audits being carried out by the IPCT will start.

Annette Rankin has confirmed that Hayley Kane from HPS will undertake the walk round of ward 2A sometime next week.

The HPS data team are doing a look back exercise, looking at gram negative bacteraemia cases from the old Yorkhill children's hospital and comparing them to the new RHC site.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the score should remain a RED as [REDACTED]

Communications

Media

No additional inquiries been received

Staff

Jamie and Dr Inkster are going to the unit management staff meeting tomorrow morning to pick up any concerns staff have.

HPS

Annette Rankin will update the Scottish Government regarding decisions made with this IMT.

Assurance Moving Forward

Jamie Redfern referred to previous discussion in the meeting and confirmed that the minute would reflect that all key actions to be taken on the professional advice of the IMT will have been completed by Monday and referral criteria to the ward should go back to normal.

Jamie Redfern confirmed that the NHS Board were looking for the IMT to act as the key organisational governance structure for advising, agreeing and overseeing implementation of all issues / actions arising from the specific incident under review.

AOCB

Sandra Devine asked Annette is there was any problems through in the Children's hospital in Edinburgh. There was a recent flood but this occurred in the new hospital which is not open to patients yet.

Mary Ann Kane indicated that a detailed plan regarding the water dosing within RHC and QEUH will be discussed at the next water group being held tomorrow. This will result in a more detailed timeline, which will be subject to change dependent on procurement processes implemented. Mary Anne Kane confirmed the Water Group had electronically agreed that traditional chlorine dioxide would be used and that taps would be replaced in high risk areas as defined by the pseudomonas guidance – this obviously would commence in ward 2A and 2B first. Dr Gibson enquired why the taps needed to be replaced – Mary Anne Kane confirmed from a risk management perspective the flow straightner contained in the taps currently were now non compliant with guidance but at the time they were installed there had been a detailed risk assessment completed which included HFS/HPS/DOH/Infection Control /Estates

Date and time of next meeting

Next meeting is being held on Friday 15th June at 1500 in Conference GWS-008, 3rd Floor, RHC.

Action list with allocated responsibility

1. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. Annette Rankin will draft a scope of the propose HPS visit and share within the group. – **to update following HPS meeting on Thursday 13/6/18** AR
2. Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running. **To complete by Friday 22nd June** TI/CP
3. A decision on how often HPV cleans are to be carried out within Ward 2A is to be determined at a later date. **Ongoing** TI
4. Dr Alison Balfour will carry out an audit regarding the usage of Meropenem within Ward 2A **To complete by end July 2018** AB
5. Colin Purdon will keep some of the removed waste pipelines for future analysis. **Completed**
6. Ward 4B within the QEUH will be prioritised next after Ward 2A has been completed. **To complete by June 30th** CP
7. Emma Sommerville will print off the advice given by Dr Inkster and give to patients and parents. **Completed**
8. David MacDonald will contact Mary Anne Kane regarding a review of the current domestic hours to adult BMT wards compared to domestic hours within a BMT Paediatric ward. **To complete by Friday 15th June** DM
9. David MacDonald has emailed Lynn Robertson for her approval regarding the purchase of a drinks vending machine. He has identified an area in which this vending machine can be placed. **Complete by end June 2018** DM
10. Annette Rankin will send a timeline compiled by HPS outlining all Cupriavidus cases. **Complete by Friday 15th June** AR
11. Calum MacLeod will send out to the IMT group a timeline created by the Paediatric IPCT outlining the 6 confirmed Enterobacter cases identified during this incident to date. **Complete by Friday 15th June** CM
12. Recovery of the chemotherapy program is catching up, Jamie has requested a list of all patients who have had their chemotherapy delayed and is still outstanding be available for tomorrows IMT. **Complete by Friday 15th June** ES

**Incident Management meeting
Water System Incident, Ward 2A & 2B, RHC
Friday 15th June 2018**

Present: Dr Teresa Inkster (chair), Susie Dodd, David MacDonald, Sandra Devine, Annette Rankin, Mary Ann Kane, Susan Macfarlane, Alan Gallacher, Julie Byrd, Andy Wilson, Jenn Rodgers, Jamie Redfern, Dr Brenda Wilson, Dr Iain Kennedy, Stephen Bowhay, Calum MacLeod (Minutes)

[Actions](#)

Apologies: Ian Storrar

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes from the IMT held on Thursday 14th June were sent. If anyone has any comments or amendments regarding these minutes can you please inform Dr Inkster and Calum MacLeod.

Case Definition

Dr Inkster confirmed the case definition as any gram negative that we have linked to the water supply or drainage.

There is a case that is a query environmental case but since the water has not been tested since the introduction of the filters there is no way to see if this is a definite case. The patient has an atypical mycobacteria line related bacteraemia which has been reported to HPS and SGHD as a possible case.

There is another patient case in [REDACTED] with the same atypical mycobacteria who has [REDACTED] so there is no obvious link.

Incident update – Patient Report

[REDACTED]

[REDACTED]

In total there have been 17 cases to date. Some patients have multiple organism results. Of the 17 patients [REDACTED]

The 17 cases are broken down into the following remembering some of the 17 patients have multiple organisms.

6 enterobacter, 9 Stenotrophomonas, 4 pseudomonas, 2 acinetobacter, 1 Cupriavidus, 1 pantoea,

A43255563

The use of ciprofloxacin as a prophylaxis is planned to be stopped after the weekend when the works have been completed. Dr Inkster and Dr Gibson will do a walk round of patients within ward 2A regarding the use of prophylaxis for each patient.

Incident update – Microbiology report

Currently awaiting typing results.

Incident update – other relevant reports

The IPCT have been looking at line care within Ward 2A this week. They observed a few issues regarding aseptic trays which should be kept away from the sinks to limit the splash risk. This was rectified at time of observation and trolleys are now being used which have already been HPV cleaned. Also observed were Curoc tips attaching them to smart sites seem quite difficult for staff. Susie Dodd and Jenn Rodgers will discuss the issues observed to see if anything that can be improved.

HPV Cleaning

Currently 6 outstanding rooms for Ward 2A that should be completed tonight. Still on course to complete HPV clean of Ward 2A and 2B by the end of the weekend.

Drain Cleaning

Work has started in ITU and HDU within the QEUH. Ward 7A and ward 7D and also NICU within the maternity building have also been highlighted for drain cleaning. Colin Purdon has been asked by facilities staff about putting up a screen to limit splashing while cleaning the drains but there should be no splash risk as the brushing movement is all undertaken underwater.

The drainage system on sinks within ward 4B is currently being replaced today.

Discussion surrounding the shower drains that could be blocked by patients who are on chemotherapy who lose their hair especially while showering. Discussion regarding what should be used regarding the regular cleaning of shower drains is currently being investigated with the help of Tom Makin water expert.

Water Dosing

Mary Ann Kane gave a timeline for the introduction of chlorine dioxide dosing of the water supply to start in November. The dosing should take between 4-12 weeks depending on how long it settles with the water system and can be seen coming through the water supply. Once this has been confirmed then a shock dose of Chlorine Dioxide will come through the water system. The shock dose of Chlorine Dioxide takes 24 hours and means there will be no hot/cold water to the whole RHC hospital campus as it has to be dosed all at the same time. Once the shock dosing has been completed then fitting of the new taps is scheduled to take place in January 2019. Due to procurement process having to go to tender this cannot be rectified any quicker. Mary Ann Kane will also be seeking guidance from HFS/HPS surrounding the water dosing and installation process of the taps.

Further Investigation

Epidemiological

HPS will review Ward 2A and compare it with the old Schiehallion ward, Yorkhill. It will be a roots and branches review looking at the physical environment, domestic and nursing service/hours, change in patient numbers. Also any new risks i.e. chilled beams will be looked at along with published outbreaks and speaking to staff. A data comparison is being compiled by HPS where they will extract data of all bacteraemia from 2012 and compare it with the rest of Scotland. The group were concerned as there is no other place like this in Scotland so unsure how the data can be compared. It was suggested that Annette should contact Public Health England to see if there has been any similar outbreaks within England and also if there are any similar set up of BMT stand alone wards within a Paediatric hospital anywhere in England.

HIAT

The HIAT was explained and the content of each classification read out. The group agreed the score should remain RED.

Communications

Media

[REDACTED]

A proactive media statement may be released later on today once Dr Inkster has seen the final draft.

Jamie informed the group that there is still confusion surrounding parents of patients involved as to why they are being moved due to the water issue which is not the case. Need to speak to patients family to clarify the situation. Patients are feeling they are being displaced due to this water incident.

TI to speak to [REDACTED] further families this evening

Staff

A team brief will be sent out to all staff following an executive teleconference happening this afternoon at 4pm. The team brief will outline that ward 2A /2B will be moving back to normality on Monday 18th June.

HPS

Annette Rankin and representatives from GGC have a teleconference with the Scottish government at 4pm today regarding this incident.

AOCB

Mary Ann Kane has carried out a comparison of domestic hours within an adult BMT ward and Paediatric BMT ward. She will send out this comparison to the group.

Facilities are currently supplying bottled water to every ward. Dr Inkster informed them there is no need to issue bottled water to all wards except 2A, 2B and 1D. This could be hard to enforce as any child who is classed as high risk as immunosuppressed and can be placed anywhere throughout the RHC.

Date and time of next meeting

Next meeting is being held on Monday 18th June at 1500 in Conference GWS-008, 3rd Floor, RHC.

Action list with allocated responsibility

- | | |
|--|-----------|
| 1. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. Annette Rankin will draft a scope of the propose HPS visit and share within the group. –awaited | AR |
| 2. Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running. To complete by Friday 22nd June | TI |
| 3. A decision on how often HPV cleans are to be carried out within Ward 2A is to be determined at a later date. Ongoing | TI |
| 4. Dr Alison Balfour will carry out an audit regarding the usage of Meropenem within Ward 2A To complete by end July 2018 | AB |
| 5. Colin Purdon will keep some of the removed waste pipelines for future analysis. Completed | ✓ |
| 6. Ward 4B within the QEUH will be prioritised next after Ward 2A has been completed. To complete by June 30th - ongoing | CP |
| 7. Emma Sommerville will print off the advice given by Dr Inkster and give to patients and parents. Completed | ✓ |
| 8. Mary Ann Kane will send the comparison she made with Paediatric BMT wards to adult BMT ward to the group To complete by Friday 15th June | ✓ |
| 9. David MacDonald has emailed Lynn Robertson for her approval regarding the purchase of a drinks vending machine. He has identified an area in which this vending machine can be placed. Machine will be ordered on Monday. Completed | ✓ |
| 10. Annette Rankin will send out timeline compiled by HPS of all 17 cases. Completed | ✓ |
| 11. Calum MacLeod will send out timeline of the 6 confirmed Enterobacter cases identified. Completed | ✓ |
| 12. Emma Sommerville will compile a list of all patients who have had their Chemotherapy delayed. Completed | ✓ |

**Incident Management meeting
Water System Incident
Ward 2A & 2B, RHC
Monday 18th June 2018**

Present: Dr Teresa Inkster (chair), Dr Brenda Gibson, Susie Dodd, Annette Rankin, Mary Ann Kane, Colin Purdon, David MacDonald, Emma Sommerville, Melanie Hutton, Susan MacFarlane, Dr Iain Kennedy, Jamie Redfern, Ian Storrar (telephone), Calum MacLeod (Minutes)

[Actions](#)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes from the IMT held on Friday 15th June were sent. If anyone has any comments or amendments regarding these minutes can you please inform Dr Inkster and Calum MacLeod.

Incident update – Patient Report

Dr Gibson informed the group that there is currently no patients giving any cause for concern. There has been some concern from parents regarding delays in treatment

Incident update – Microbiology report

The water counts from recent water test in the aseptic unit was zero.

Awaiting typing results to see if any cases can be linked between patients.

Hypothesis

Identify a sink that is in a low risk ward where point of use filter can be fitted to mimic the flow of water and splashing

Control Measures

Patients

Patients can stop taking prophylaxis across the board. Dr Gibson will communicate this to her fellow clinician colleagues.

Currently catching up with Chemotherapy patients who have had their treatment delayed.

General

Colin Purdon informed the group that everything went to plan over the weekend regarding the drain replacement and HPV clean. Ward 2A and 2B are admitting patients as normal.

Dr Brenda Gibson will send on minutes to her colleagues from Fridays meeting regarding the dosing of the water supply and tap replacement. This will re-assure them that they know that there is a long term solution and what to expect when it is implemented.

Staff

A meeting will be arranged between IPCT and Ward 2a/b educator / senior nursing to discuss ANTT process

Education sessions will be arranged by the IPCT on hand hygiene, TBPs and SICPs moving forward.

No issues with cleaning checking daily, good standard.

Further Investigation

Epidemiological

Hayley Kane from HPS has carried out a walk round of ward 2A today with Susie Dodd's.

Dr Inkster has asked Annette Rankin to contact Public Health England regarding any incidents or outbreaks recorded that have been similar to this incident. Also request any data regarding patients with bacteraemia that could be water related, this may not be held by Public Health and Annette may need to contact hospitals separately.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the score should be an AMBER due to the group deciding.

Severity – Moderate as treatment has been delayed

Impact - Minor

Risk of Transmission - Minor

Public Anxiety – Moderate

Communications

Media

The group saw no stories printed in the Daily Record newspaper over the weekend after a parent had spoken to a reporter.

Staff

A core brief reassuring staff will be sent out by tomorrow.

Families

[REDACTED] Dr Inkster asked the parent to speak to Senior Charge Nurse if they had any queries.

HPS

Annette Rankin had a teleconference with the Scottish government who were looking for assurance regarding this incident.

Assurances Moving Forward

Dr Inkster re-iterated to the group that moving forward ;

Infection Prevention & Control Team have a surveillance trigger for any future meetings
Domestic audits – go directly to Jamie every Friday and executive group.
IPCT audit – daily visit to ward and reporting back to Jamie Redfern and Jenn Rodgers.

AOCB

Discussion surrounding how often HPV cleans should be undertaken was discussed. It was suggested that an HPV clean could be undertaken for all transplant patients when they are admitted into the hospital as these admissions are planned. Currently RHC carry out about 16-20 transplant patients per year. Discussion on the frequency of when HPV cleans are undertaken will be brought to the water group. Dr Inkster stated it would be good to do a planned HPV clean later in the year after tap changes had taken place. She highlighted that the approach to do transplant rooms would mean other key rooms would be missed.

[REDACTED] but it was agreed a HPV clean of the patients room is not required as it has already undertaken a HPV clean twice in 2 weeks.

Brenda Gibson has arranged a meeting with microbiology colleagues to discuss Meropenem usage.

Date and time of next meeting

The next meeting is being held on Thursday 21st June at 1500.

Action list with allocated responsibility

- | | |
|--|----|
| 1. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. Annette Rankin will draft a scope of the propose HPS visit and share within the group. -awaited | AR |
| 2. Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running. To complete by Friday 22nd June | TI |
| 3. A decision on how often HPV cleans are to be carried out within Ward 2A is to be discussed at the Water Group. Ongoing | TI |
| 4. Dr Alison Balfour will carry out an audit regarding the usage of Meropenem within Ward 2A To complete by end July 2018 | AB |
| 5. Colin Purdon will keep some of the removed waste pipelines for future analysis. Completed | ✓ |
| 6. Ward 4B within the QEUH will be prioritised next after Ward 2A has been completed. Completed | ✓ |
| 7. Emma Sommerville will print off the advice given by Dr Inkster and give to patients and parents. Completed | ✓ |
| 8. Mary Ann Kane will send the comparison she made with Paediatric BMT wards to adult BMT ward to the group Completed | ✓ |
| 9. David MacDonald has emailed Lynn Robertson for her approval regarding the purchase of a drinks vending machine. He has identified an area in which this vending machine can be placed. Machine will be ordered on Monday. Completed | ✓ |
| 10. Annette Rankin will send out timeline compiled by HPS of all 17 cases. Completed | ✓ |
| 11. Calum MacLeod will send out timeline of the 6 confirmed Enterobacter cases identified. Completed | ✓ |
| 12. Emma Sommerville will compile a list of all patients who have had their Chemotherapy delayed. Completed | ✓ |
| 13. The IPCT will arrange training dates on hand Hygiene/PPE/SICPs for staff in ward 2A and 2B – Ongoing | SD |
| 14. A meeting will be arranged between IPCT and Ward 2a/b educator / senior nursing to discuss ANTT process - Completed | ✓ |

**Incident Management meeting
Water System Incident
Ward 2A & 2B, RHC
Thursday 21st June 2018**

Present: Jamie Redfern (Chair), Jenn Rodgers, Sandra Devine, Annette Rankin, Colin Purdon, David MacDonald, Emma Sommerville, Angela Howat, Melanie Hutton, Calum MacLeod (Minutes)

Apologies: Ian Storrar, Susie Dodd, Alan Gallacher, Dr Inkster, Dr Gibson

Welcome, Apologies, Introductions

Jamie Redfern welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes from the IMT held on Monday 18th June were sent out and agreed. If anyone has any comments or amendments regarding these minutes can you please inform Dr Inkster and Calum MacLeod.

Incident update – Patient Report

Jamie Redfern had spoken to Dr Gibson before attending this meeting regarding patients and there were none giving any cause for concern.

Incident update – Microbiology report

Nothing to report

Incident Update – Other relevant report

No IPCT issues or concerns found during their daily walk rounds. Anything that is found would be raised with the SCN at the time of the walk round and rectified.

Peer audits of ward 2A/2B will be commencing soon. This will involve using the old environmental SPE audit and also the new IPCAT audit.

No domestic/estates/HPS issues found surrounding Ward 2A/B since the last meeting.

Hypothesis

Hayley Kane from HPS did walk round of ward 2A and noticed a lip in the drains that holds a tiny amount of water which can splash back onto the environment when the tap is running. Hopefully the mock up of a sink with a point of use filter will confirm this issue.

[Actions](#)

Control Measures

Patients

Prophylaxis has been discontinued for all patients.

[REDACTED]

General

A decision to fit filters to taps for patients who attend ward 2A/2B but also attend other outpatient clinics throughout the RHC hospital will be decided at the water group on Friday.

Facilities are going to remove a sink with no filter attached to it within Ward 2A that is solely used for draining purposes.

The maintenance of the drain cleaning is to be discussed at the next water group this Friday 22nd June.

Staff

Staff are more aware why these control measures were put in place after Dr Inkster's talk to them on Friday.

Emma is concerned about staffing levels in the next two weeks [REDACTED].
[REDACTED]. Melanie Hutton has agreed that she can request extra hours.

HIAT

The HIAT was explained and the content of each classification read out. The group agreed the score should be a GREEN.

Severity – moderate
Impact on services - minor
Risk of Transmission – minor
Public Anxiety - - minor

The Executive group will be kept running as well as the water group.

Jamie Redfern will still receive daily/weekly feedback from the IPCT and domestic services.

The group agreed that for the next 2 weeks if another case is reported then the IMT will be reconvened. If no cases after 2 weeks then the IPCT will resort back to their normal surveillance of 2 cases that fit the case definition.

Communications

Government

The Scottish government has requested all HIORTs and PAGs regarding RHC including any green scoring HAIT for 2018 to be sent to themselves by close of play on Monday 25th June.

HPS

Annette Rankin asked a few questions regarding RHC which Jamie Redfern answered.

Annette has requested a list of all wards and specialities and how they align with the old Yorkhill hospital campus which Jamie will send onto herself.

AOCB

Jamie Redfern would like to identify the costs attached to this incident i.e. HPV cleans, increased hours for staff, cost of materials etc. Melanie Hutton is currently putting weekly finance figures together regarding this.

Date and time of next meeting

The group agreed that there is no need for this IMT to continue unless any new cases occur that fit the case definition.

Action list with allocated responsibility

- | | |
|---|-------|
| 1. Annette Rankin from HPS has been asked to carry out a formal review of Ward 2A and Ward 2B to see if there is any difference between the new and old hospital sites. Annette Rankin will draft a scope of the propose HPS visit and share within the group. – completed | ✓ |
| 2. Dr Inkster and Facilities are working on identifying a sink where they can carry out some investigation surrounding the aerolisation of the drains when the taps are running. Agree at water Group on Friday 22nd June | TI/CP |
| 3. A decision on how often HPV cleans are to be carried out within Ward 2A is to be discussed at the Water Group. Ongoing | TI |
| 4. Dr Alison Balfour will carry out an audit regarding the usage of Meropenem within Ward 2A To complete by end July 2018 | AB |
| 5. Colin Purdon will keep some of the removed waste pipelines for future analysis. Completed | ✓ |
| 6. Ward 4B within the QEUH will be prioritised next after Ward 2A has been completed. Completed | ✓ |
| 7. Emma Sommerville will print off the advice given by Dr Inkster and give to patients and parents. Completed | ✓ |
| 8. Mary Ann Kane will send the comparison she made with Paediatric BMT wards to adult BMT ward to the group Completed | ✓ |
| 9. David MacDonald has emailed Lynn Robertson for her approval regarding the purchase of a drinks vending machine. He has identified an area in which this vending machine can be placed. Machine will be ordered on Monday. Completed | ✓ |
| 10. Annette Rankin will send out timeline compiled by HPS of all 17 cases. Completed | ✓ |
| 11. Calum MacLeod will send out timeline of the 6 confirmed Enterobacter cases identified. Completed | ✓ |
| 12. Emma Sommerville will compile a list of all patients who have had their Chemotherapy delayed. Completed | ✓ |
| 13. The IPCT will arrange training dates on hand Hygiene/PPE/SICPs for staff in ward 2A and 2B – Ongoing | SD |
| 14. A meeting will be arranged between IPCT and Ward 2a/b educator/senior nursing to discuss ANTT process – Completed | ✓ |
| 15. A list of all wards and specialities and how they align with the old Yorkhill hospital campus is to be sent to Annette Rankin – Ongoing | JR |
| 16. Drainage sink in Ward 2A is to be taken out. - Ongoing | CP |

**Incident Management meeting
Increased Incidence of Acinetobacter within PICU
Tuesday 3rd July 2018**

Present: Dr Teresa Inkster (chair), Karen Connelly, Dr Andrew McIntyre, Dr Neil Spenceley, Kathleen Harvey Wood, Angela Johnson, Kathryn Anderson, David MacDonald, Gael Rolls, Elaine Johnston, Linda Brown, Mark Davidson, Calum MacLeod (minutes)

Apologies: Jamie Redfern, Jenn Rodgers

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of last Meeting

The minutes of the last IMT meeting held on Wednesday 6th June 2018 were agreed with the following amendment:

Pag4, Action 2 should read : “focussing mainly on BAL practice, Tracheosotomy care”

Incident update – 1. General situation statement

A new case of acinetobacter has been identified from a specimen taken on the 25th June 2018. This brings the total of patients identified with acinetobacter from 18th February 2018 to 7 cases. Dr Inkster reiterated the presence of a strain first identified last October.

Incident update – 2. Patient Report

The most recent case, [REDACTED]. This bed space is adjacent to a current acinetobacter positive patient so possibility of cross transmission but typing results will determine this. The patient also has pseudomonas aeruginosa from BAL which has returned as being the same strain as a patient in February.

Incident update – 3. Microbiology report

Awaiting typing result from Colindale

Incident update – 4. other relevant reports

Linda Brown confirmed that recent hand hygiene audit scores are not giving cause for concern. Specific hand hygiene scores were not available at the meeting.

Risk Management/Control Measures – 1. Patients

AJ has observed Blind BAL practice in PICU. The main issues identified were:

- Trolley tops are cluttered with extraneous items unrelated to the procedure
- In some bed spaces the procedure trolley can be placed within 1 metre of the hand hygiene sink risking contamination from splash
- Sterile field for decanting the suction catheter is very small, increasing risk of contamination to the catheter
- Some sterile fields are placed on the patient beds
- Suction catheters are used for two consecutive passes although labelled as single use items by the manufacturer

AJ and GR have agreed to work on resolving the issues identified from observation of Blind BAL practice.

AJ has carried out observational work with the Complex Airway Nurse Specialist, Sylvia Harrison, around care of tracheostomy sites and tracheostomy tubes. The main issues identified were:

- Trolley tops are cluttered with extraneous items throughout the procedure
- Procedure trolleys can be placed within 1 metre of the hand hygiene sink risking contamination from splash
- Opportunities for hand hygiene missed between tasks during observation of a parent carrying out suctioning and tracheostomy site care
- Variation in method of waste disposal during procedure. Brown paper bag already filled with waste items and disposal onto a cardboard tray in another instance
- Opening of large packs of 200 gauze swabs with potential for contamination with continued use of the pack during subsequent days
- No guidance on how long bottles of Prontosan can remain in use after opening
- No guidance of the required concentration of detergent and water for cleaning tracheostomy tubes
- Difficulties with submersion of the new tracheostomy tubes in the enzymatic cleaning tub
- Enzymatic tub and internal grid not separated or inverted to air dry thoroughly
- Instructions for reconstituting the enzymatic powder are in German only
- No date of opening recorded on the enzymatic cleaning powder.
- No guidance on how long tubs of enzymatic powder can remain in use after opening
- Cleaned tracheostomy tubes are rinsed with sterile water over the hand hygiene sink

- No method of recording the date that the specimen bag, used for storage of the tracheostomy tube and tapes, is changed. One bag observed with a stain across the front
- Introducer wiped down using a gloved hand rather than a gauze swab
- Confirmed that there have instances of staff caring for patients with a tracheostomy who have not completed tracheostomy competency training

AJ agreed to follow-up with SH to work on step by step guidance for tracheostomy care.

Risk Management/Control Measures – 2. General

Karen Connelly reported that the last four domestic monitoring reports all scored above 90% range.

High pendant cleaning has been undertaken within PICU.

Dusty vent noticed last time during walk round has since been rectified.

Drain cleaning of the ward has been completed.

All drain and water samples have been negative.

Karen Connolly agreed to check that the hot water supply to PICU is within a specified temperature range in accordance with guidance.

Gael Rolls is going to enquire about seeing if the oscillator within their draeger vents can be swabbed.

Dr Inkster emphasised the importance of hand hygiene and requested education sessions

Risk Management/Control Measures – 4. Staff

Dr Spenceley raised his concerns about the lack of nursing and domestic staff leading to times where there hasn't been enough staff to do one to one care for patients.

Gael Rolls informed the group that she is carrying out familiarisation training for staff who are being moved between wards during staff shortages.

Further Investigations – Epidemiological

Dr Inkster has requested that all patients within PICU [REDACTED] should be screened for acinetobacter. This will involve screens of throats, blind BALs, any wounds, urine and tracheostomy sites. This will give the IMT an idea for the burden of acinetobacter within PICU.

If the numbers increase after the screening of all patients then more focus will be placed on equipment and environment cleaning, with the possibility of Hydrogen Peroxide Vapour (HPV) cleaning of the ward.

Environmental swabs will also be taken later on the week with focus on respiratory equipment.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the following score of GREEN;

Severity of illness – Minor

Services – Minor

Risk of transmission – Moderate as source is unknown

Public anxiety – Minor

Communications

The IPCT will inform HPS of the HIIAT score.

No requirement for press statement or to inform the public.

AOCB

A query was raised regarding cohorting the positive patients but this will be looked into further once all the screening results of the patients have been collated.

Date and time of next meeting

It was agreed that the next meeting will be on Friday 6th July at 1400 in the PICU meeting room.

Action list with timescale and allocated responsibility

- | | |
|--|--------------|
| 1. Susie Dodd will look into shared equipment such as ultrasound machines to ensure there is a robust cleaning regime in place for these machines. | SD |
| 2. Karen Connelly will follow up the removal of trough sinks within PICU with Willie Madden. | KC |
| 3. Angela Johnson will look with Gael Rolls on providing solutions to the issues identified while observing Blind BAL practice. | AJ/GR |
| 4. Angela Johnson and Sylvia Harrison going to work on step by step guidance for tracheostomy care. | AJ/SH |
| 5. Gael Rolls is going to enquire about seeing if the oscillators within their draeger vents can be swabbed. | GR |
| 6. Current patients within PICU are to be screened for acinetobacter. | GR |
| 7. Environment screening with focus on respiratory equipment. | AJ |
| 8. Staff education to be arranged by the IPCT | IPCT |

**Incident Management meeting
Increased Incidence of Acinetobacter within PICU
Friday 6th July 2018**

Present: Dr Teresa Inkster (chair), Kathleen Harvey Wood, Angela Johnson, Lynne Kennea, Karen Connelly, Gael Rolls, Dr Colin Begg, David MacDonald, Calum MacLeod (minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of last Meeting

Calum MacLeod has received comments regarding the minutes from the IMT held on Tuesday 3rd July. He will update the minutes and disseminate to the group in due course.

Incident update – Patient Report

A previous positive case where the patient was colonised with acinetobacter has been

Incident update – Microbiology report

So far the following swabs have been taken:-

- 3 wound swabs nothing significant in any of them.
- 3 urine samples all negative.
- 7 blind BALs due to patients being ventilated. Full reports not available yet but no new cases so far.
- 1 throat swab was negative.

All in patients in Ward 1D have been screened. The full results of the screens will be available by Monday 9th July.

Incident update – 4. other relevant reports

The IPCT carried out a routine visit of PICU today and raised concerns regarding bed space trolleys and what happens to the contents when the patient is discharged. All trolleys should be emptied after being in an isolation room where a patient has TBPs in place. The inside of the drawers should be cleaned as well as the outside of the trolley. Gael Rolls will remind staff about this.

Actions

Hypothesis

The most likely source of acinetobacter is from the environment and possibly equipment. The route of transmission is via both direct and indirect hand contact with the environment, equipment and colonised patients.

Risk Management/Control Measures – Patients

Observation of Blind BAL practice has taken place and everything seemed fine. One issue highlighted was the proximity of the trolley to the sink, especially as there is an increased splash risk from the taps post fitting of filters as part of the water incident. Staff have been reminded about practice and placement of trolleys.

Guidance on tracheostomy care is being reviewed by the IPCT and the Nurse specialist.

Risk Management/Control Measures – General

Karen Connelly agreed to acquire the PPM schedule for vent cleaning in PICU and share with Gael Rolls.

Education sessions regarding hand hygiene are being aimed at staff groups who have been failing during the most recent hand hygiene audits. Gael Rolls informed the group that the next hand hygiene audits will target the non-compliant groups within Ward 1D.

A lot of patient movement within PICU was noted by Dr Inkster and asked if this was due to staffing numbers, but Gael Rolls said that patient dependency is a factor in the decision to move bed spaces.

All environmental swabs of trolleys and the environment have come back negative.

The removal of the trough sinks will be put on hold until an alternative trough sink can be procured and fitted into the ante rooms. The current clinical hand wash basin within patient rooms are too small for a surgical scrub technique.

Angela Johnson has asked that staff carry out weekly spot checks on equipment stored within the corridors to ensure they are clean and dust free.

HIIAT

The HIIAT was explained and the content of each classification read out. The group agreed the following score of GREEN after the group agreed the following:

Severity of Illness – Minor

Services - Minor

Risk of Transmission – Moderate as the source is unknown

Public Anxiety - Minor

Communications

The IPCT will inform HPS of the HIIAT score.

No need for press statement or to inform the public.

AOCB

Dr Begg enquired about the cleanliness of keyboards at touchdown areas/nurses station. Gael informed him that the keyboards are included in the daily cleaning regime which is signed off by the staff.

Possible to carry out HPV cleaning if the numbers increase.

Date and time of next meeting

It was agreed that the next meeting will be on arranged once all results are available and reviewed.

Action list with timescale and allocated responsibility

- | | |
|--|--------------|
| 1. Susie Dodd is going to look into shared equipment like ultrasound machines and see if there is a robust cleaning regime in place for these machines. | SD |
| 2. Karen Connelly will follow up the removal and replacement of trough sinks within PICU with Willie Madden. | KC |
| 3. Clinicians are using IPCT observations of practice to review the local guidance on Blind BAL procedures. | ✓ |
| 4. Angela Johnson and Sylvia Harries are continuing to work on step by step guidance regarding cleaning certain aspects of equipment and future training of staff. | AJ/SH |
| 5. Gael Rolls is going to enquire about seeing if the oscillators within their draeger vents can be swabbed. | GR |
| 6. All patients within PICU have been screened for acinetobacter. | ✓ |
| 7. The environment, including pieces of equipment have been swabbed. | ✓ |
| 8. Staff education to be arranged by IPCT | IPCT |

Incident Management Team
X3 Gram negative bacteraemia associated with Haem/onc patients 2A
5th September 2018 @ 11.30am

In attendance: David McDonald (DMc), Angela Johnson (AJ), Sandra Devine (SDe), Andy Wilson (AW), Angela Howatt (AH), Sarah Jane Mcmillan (SJM), Emma Somerville (ES), Kathleen Thomson (KT), Susie Dodd (SDo), Jen Rodgers (JR), Annette Rankin (AR), Teresa Inkster (TI), Ian Storrar (on phone) (IS)

Apologies: Melanie Hutton, Brenda Gibson

Introductions

Introductions were made around the table.

Incident update

TI informed the group of the 3 cases of bacteraemia reported since 5th August 2018 which have been caused by gram negative organisms isolated from the drains. TI also explained to the group that drains had been swabbed on ward 2A on Wednesday 29th August following reports that grime was visible in the drains. The findings from the drains match 2 of the 3 cases reported today. As a result of case numbers and microbiological findings from the drains the IMt had been re-convened.

Patient update

SDo took the group through each of the 3 cases as per handout. [REDACTED]

Drain reports

Swabbed TI on 29th August 2018. TI described the drains observed that day as having thick black and yellow grime present.

Room 23 trough sink – Coliforms, Delftia acidovarons and Chryseomonas indologenes isolated.

Clean utility CHWB - Cupriavadis, Pseudomonas aeruginosa

Treatment room trough sink - Pseudomonas aeruginosa, Klebsiella oxytoca, Cupriavadis

AR queried when [REDACTED]. SD confirmed that the patient only moved into this room after the positive blood culture. AR queried as to whether the patient contaminated the drain. TI agreed that this was possible however the group should note that the Chryseomonas indolognes isolated from [REDACTED] was very rare in patient cases. ES noted that the positive sink was in the ante room and [REDACTED]. Some discussion followed and it was considered that a staff members hands may have contaminated the drains after contact with the positive patient.

IS suggested the possibility of swabbing staff hands after handwashing to ascertain if any gram negative organism were on their hands following hand washing. The group discussed the sensitivities around this and queried whether there would be much to gain from it.

TI sought clarity on the drain cleaning within 2A and 2B. AW confirmed that only 1 sink drain was still to be cleaned on ward 2A and that 2B had been completed. Some discussion took place as to the build up of grime noted in the drains last week having only been cleaned in the 4-6 weeks prior.

IS suggested that if the trough sink drains were not cleaned properly then these should be sanitised and perhaps a scope passed to determine any issues further back beyond the u-bend. TI and ES

confirmed that the sinks had been sanitised. AW pointed out that spigots were changed in the clinical hand wash basins however, these spigots did not exist in the stainless steel trough sinks and that there was never any concerns identified in relation to the components of these sinks that required repair or replacement. He also noted that cleaning of trough sinks had to be carried out from the downpipe up the way as these sinks had a grill across the drain.

ACTION: Take a trough sink apart to look at the internal components and identify anything of concern. Obtain further swabs from sink drains on 2A.

Other relevant reports

SD reported that the Infection Prevention and Control Team (IPCT) had been visiting the ward on a daily basis for a number of months providing daily feedback including a more formalised report twice weekly. Having sustained a high level of environmental and equipment cleanliness for many weeks, these visits were reduced down to 2 per week as of Monday 3rd September.

SDo reported recent IPCAT audits; Ward 2A on 1/8/18 Scored 96% and ward 2B on 22/8/18 scored 98%. SDo reported that an IPCN was attending the CVC maintenance group every 2 weeks to help support and promote best practice.

ES raised concerns in relation to HCSW staff being pulled from the areas. ES is concerned that standards cannot be maintained if this continues to happen. TI shares these concerns and wanted to be reassured that staffing would not result in a drop in standards of cleanliness on the ward. KT explained that staff were pulled to cover other areas based on a risk assessment at the time. JR explained that there are multiple factors involved in the staffing across a site. JR reiterated that the SMT absolutely support nursing staff workforce to support quality and safety in ward 2A and 2B and reported that they are working on evidence to support further funding for 2A staff.

SDe queried progress with the actions resulting from IPCN Hayley Kane's visit on 8th August. AH and ES reported that these were complete although AH was awaiting a follow up report from estates as to the progress of chilled beam inspection and cleaning on ward 2B.

AH & KT queried the quick generation of dust despite regular cleaning within ward 2A and 2b and whether this was seen on other sites. SDo felt that this was a problem across the site and areas often reported dust generating very quickly after cleaning. AH noted that it was of particular concern on vertical wall surfaces. SDo noted that vertical walls would not be part of routine domestic cleaning. AH and KT also reported dust levels in the vents and chilled beams. SDo reported that she and the lead IPCN for adults had been working with Paul McAllister (estates manager) to complete generic SCRIBEs for a rolling programme of vent and chilled beam cleans across the site.

ACTION: SDo will raise concerns relating to dust build up on walls with domestic services.

DM reported that the enhanced domestic hours put in place during the acute phase of the water incident are being maintained and that no concerns have been reported with the standards of cleaning.

Control measures

AR queried if drains throughout other wards are an issue. It was agreed that drains throughout other wards are not being regularly checked but it is expected they will be similar to the drains in 2A with a build up of grime visible. TI discussed 1B as a possible risk. [REDACTED]

IS suggested other non high risk areas have drains inspected and swabbed. The group agreed and a plan of swabbing will be established. TI noted that this will need to be staggered to allow the microbiology dept to process the swabs.

ACTION: Review drains in 2A/2B/1B/4B initially – photograph and swab. Discuss plan to roll out wider swabbing and drain inspection.

TI informed the group that she had raised concerns relating to the drain cleaning at the water group. She reported that guidance from HPS states drains should not be cleaned due to Pseudomonas risk and that updated Pseudomonas guidance is awaited and to date this had been reported as holding up the drain cleaning process. It was noted that Ian Powrie is working on a regular programme of drain cleaning. TI feels there needs to be a weekly drain cleaning schedule for 2A and 2B. AR agrees that this needs to be established. The impact of weekly cleaning of drains in the clinical area was discussed. Currently a brush method is necessary to dislodge the visible grime and this requires the room to be vacated of patients which is very disruptive for patients and staff. TI explained that now that the brush clean had been carried out then a chemical clean on a weekly basis may be enough to maintain clean drains in addition to using the brush method monthly. The chemical clean would not require patients to vacate the room. This process should continue until Ian Powrie has developed the method which allows a 4 hour contact time between the drain and disinfectant.

IS agrees with this and is hoping to speak with public health England this afternoon to discuss the best product to sanitise the drains.

ACTION: IS will advise on best product to use for drain cleaning.

AR asked if it is possible that parents are still putting inappropriate waste down hand wash basins. SJMc and ES advised this is unlikely and there is signage for parents. SDo added that this has improved since the parent education was issued. SDo also stated that it was no longer common practice to find items left on the clinical hand wash basins in 2A. ES noted that there were parent signs advising not to pour anything down the sinks. AH felt she needs more signage in her area.

ACTION: Provide 2B with more sink signage.

Discussion around splash risk from toilets (toilet plume) and showers. Shower drains not thought to be of the same concern but will be reviewed. No toilet seats in 2A which has been raised as a concern previously due to chemo exposure. TI asked if there were any issues with flies around toilets as this had been an issue in 4B. The group agreed there were no issues with flies around the toilets.

AR asked if water testing is still taking place on 2A. AW advised that water sampling has not been taking place. AR recommended that further water sampling is now carried out. It was suggested that water sampling is carried out with a plan to discuss at water meeting as to regular frequency of this.

ACTION: To establish water testing programme for 2A ? wider.

HIAT

Severity of Illness – minor

Impact on service – minor

Risk of transmission – moderate

Public anxiety – Minor (general public)

Overall HIAT rating - GREEN

AR advised that these most recent cases will become part of the public domain and therefore a press statement should be considered.

ACTION: Agreed that comms need to be discussed with Jennifer Armstrong and Jane Grant after the IMT. Comms for parents to be discussed with the press office out with this meeting. AR will escalate HIIAT green to SG.

JR sought clarity on the HPS report. A technical water report has been returned following comments for factual accuracy and has yet to be formally issued. An outbreak report with an accompanying SBAR will be issued on 17th October to the Scottish Government. A report on 2A and 2B which will include ventilation will be issued at the end of September.

AR informed the group that SG have asked for increased surveillance of gram negative bacteraemia. They have requested that all gram negative bacteraemia associated with 2A and 2B are investigated by means of a Problem Assessment Group (PAG). AR reported that SG also want all gram negative bacteraemia in high risk areas to be investigated by the same means. TI, SD and SDe raised concerns around the resource implications this creates and queried why this is necessary when currently there are triggers in place to recognise any increase in cases.

Date and time of next meeting; Monday 10th September 2018. 11-12.30pm

Venue: Level 3 Conference Room, Room GWS-009.

Action	Responsible Person	Date for completion	Progress
Take a trough sink apart to look at the internal components and identify anything of concern.	Andy Wilson	10/9/18	
Raise concerns relating to dust build up on walls with domestic services.	Susie Dodd	6/9/18	6/9/18
Obtain further swabs from sink drains on 2A.	Susie Dodd and Teresa Inkster	05/09/18	Complete
Review drains in 2A/2B/1B/4B initially – photograph and swab. Discuss plan to roll out wider swabbing and drain inspection.	Susie Dodd and Teresa Inkster	10/09/18 – Initial review and swab 14/09/18 @ water group	2A/2B/4B completed 5/9/18
Advise on best product to use for drain cleaning.	Ian Storer	06/09/18	
Provide 2B with more sink signage	Angela Johnson	05/09/18	Complete
To establish water testing programme for 2A ? wider	Teresa Inkster and Annette Rankin	14/09/18 @ water group	
Comms to be discussed with Jennifer Armstrong and Jane Grant after the IMT.	Jen Rodgers & Teresa Inkster	06/09/18	
Comms for parents to be discussed with the press office out with this meeting.	Jen Rodgers & Teresa Inkster	05/09/18	Complete
Escalate HIIAT green to SG.	Annette Rankin	05/09/18	

Incident Management Team
X3 Gram negative bacteraemia associated with Haem/onc patients 2A
10th September 2018 @ 11.00am

In attendance:

Dr Teresa Inkster (TI), Andy Wilson (AW), David MacDonald (DM), Jen Rodgers (JR), Iain Kennedy (IK), Sarah Jane McMillan (SJM), Melanie Hutton (MH), Angela Howatt (AH), Kathleen Thompson (KT), Sandra Devine (SDe), Karen Connelly (KC), Prof Brenda Gibson (BG), Susie Dodd (SDo), Annette Rankin (AR)

Apologies:

None

Minute of last Meeting

No changes were requested to the previous minutes however clarity was sought on the provision and timelines of reports by HPS. AR reported the following;

A technical (water) report has been returned following comments for factual accuracy and has yet to be formally issued. An outbreak report with an accompanying SBAR will be issued on 17th October to the Scottish Government. A report on 2A and 2B which will include ventilation will be issued at the end of September.

The previous minutes will be changed to reflect this.

Patient Report

TI informed the group that there was a new gram negative bacteraemia reported this morning prior to the meeting bringing the total case numbers to 21. The IMT are currently focussing on cases 18-21. BG reported that

BG asked if these numbers were above baselines incidence. TI feels that there is likely to be an increased incidence and is particularly concerned about the environmental gram negative bacteraemia (GNB). TI reported that the source of the gut gram negatives such as Ecoli and Klebsiella are difficult to determine however the environmental gram negatives do appear to be seen more frequently. TI noted that the patients with Ecoli and Serratia isolated from blood cultures were not included as neither of those organisms have been found in drains or water.

TI invited AR to report epidemiology carried out by HPS. AR reports that ward 2A haven't seen the reduction in GNB that might be expected having moved to a new build and with the quality Improvement (QI) work which has been undertaken around central line associated blood stream infections (CLABSI) on the unit. JR reports that CLABSI have reduced significantly following QI work. JR noted that the numbers are now down below the 2015 median when data collection began. It was noted that the data being collected by Dr Timothy Bradnock as part of the QI CLABSI group differs from the data being collected by the IPCT therefore they cannot be compared.

IK reported that *Chryseomonas indologenes* has been seen previously amongst the haemato oncology population but remains rare. IK also reported he had carried out a brief epidemiological look back and overall, background cases of GNB on the old Yorkhill site as a whole averaged around 2 cases over a 3 week period although it was likely that most of these cases were amongst the haem-onc population. Further analysis would be required to produce definitive numbers. On that basis, IK feels that the incidence of GNB

in ward 2A may be slightly up but not markedly. TI requested that HPS epidemiology be shared as soon as possible to help give the IMT an understanding of the extent of the concern. AR stated that she will request that epidemiologists present their findings to the IMT.

ACTION – AR to follow up epidemiology carried out by HPS for wider discussion amongst IMT.

BG queried the financial cost of removing a patient line. JR and MH reported that they did not have that data but this is something that could be reviewed.

Drain Reports

Results from swabs obtained from drains last week are not yet available. TI reported 2 trough sinks in ward 2A were taken apart (one in room 23 and one in room 24). Room 23 trough was clean. Room 24 trough was visibly dirty, not in the u-bend itself but in the pipe feeding the u-bend. SD fed back on drain inspection in ward 2A, 2B and ward 1B. The drains of Clinical hand wash basins (CHWBs) in ward 2A appeared clean. The drains in the en suite bathrooms hand wash basins were heavily contaminated with black grime. It was also noted that the drain of the treatment room sink in ward 2A was heavily contaminated again having only been cleaned the week prior. Ward 2B drains all appeared satisfactory. The drains in CHWBs in ward 1B were not clean with visible black grime present in all drains throughout the ward. A selection of drains in the areas described were swabbed. TI reported that 4B was also inspected and the same concerns were not found – drains appeared clean. Trough sinks in adult ITU appear to be satisfactory also. AR added that Senior IPCN Hayley Kane noted black grime in the drains during her visit to the 3rd floor of RHC in July. Unclear as to why the RHC drains are presenting problematic yet QEUH are not. MH queried if the cleaning in adults was the same as paed. AW confirmed that it was – both had a manual brush clean followed by a chemical clean. AW confirmed that no work has been done on the ward 1B sinks to date.

Control Measures

TI relayed that it was agreed at the last meeting that for ward 2A/B, all sinks will require weekly drain cleaning, including en suite sink drains and shower drains. Chemical clean can be done weekly (with patient in the room) but we will need to do mechanical (brush) method on a monthly basis which requires patient to be removed from the room. TI reported that Ian Powrie is trialling a new method of cleaning this week. This method uses a bung which when removed may aerosolise bacteria so some thought is being given as to how to prevent this. Will be agreed at the weekly water meeting as to who will clean the drain, estates or domestics. KT queried if there was a CSOHH risk. TI and KC confirmed there is not. Patient rooms will have to be vacated to clean the en suite basins and shower drains as the access is from the pipe trap upwards rather than down the way. SJMc noted that this will have a lot of disruption clinically as the ward is currently full therefore some notice will be required. The 4 rooms undergoing validation will have their drains done during the validation process. AW will speak to SJMc after the meeting to plan the logistics of cleaning in the remaining rooms on the ward.

ACTION – AW and SJM to discuss planned programme of cleaning drains in the ward.

TI requested that drains in ward 1B are cleaned also. Ward 1B closes in the evening so works can be done out of hours. TI requested that spigots are replaced in the same way as they were in ward 2A and 2B. TI queried the pathway of a haem/onc patient through theatre and into ward 1B. SD reported that IPCNs will follow a patient to note the pathway. BG noted that theatre list is on a Tuesday.

ACTION - KC and AW to arrange drain cleaning and spigot change in ward 1B.

ACTION – SD to arrange for a patient to be followed from ward 2A/B, to theatre, recovery, and back to ward 1B to review practice and drains in each of the areas.

BG queried of patients should receive prophylaxis. TI reported that this was problematic as there are a lot of side effects associated with prophylaxis and the risks/benefits need to be weighed up. TI felt that prophylaxis

should be withheld at present but that the epidemiological data would help determine this. BG was satisfied with the decision.

Future Preventative

TI explained that the Chlorine dioxide dosing is due to start very soon which is hoped will alleviate the problem with the contaminated pipe work.

HIIAT

Severity of illness – minor

Impact on services – minor

Risk of transmission – moderate

Public anxiety – minor

Overall – **GREEN**

Communications

Patient communications were issued last week regarding further drain cleaning works.

Communications were also issued relating to the ongoing cladding works.

Staff concerns – SJM reported that there are ongoing questions from staff around the incident.

Some discussion took place around the impact of chlorine dioxide dosing and what it will mean for the clinical area. BG requested that the clinicians have the contingency plan now to allow for transplants scheduled for months ahead. The date for the dosing commencing will be mid October. AW explained that if the water is to be switched off it won't be as soon as October. Discussion took place around shock dosing and the timeframes that staff will be without water. There was some difference of opinion as to whether shock dosing could be done on the RHC site alone or if both RHC and QEUH had to be done at the same time. JR is seeking the answer to this as soon as possible to allow her to establish how renal patients will be managed during any loss of water. IK advised that there should be a site contingency plan in place for loss of water for any reason. JR advised that there already is one being prepared.

ACTION – AW will find out if shock dosing on the south site needs to be done as a whole or if RHC and QEUH can be done at different times.

ACTION - MH will take forward an operational contingency plan for the chlorine dioxide dosing but also a site plan in the event of water loss for any other reason.

Public Communications – draft statement has been prepared should it be needed.

AOCB

BG expressed concern that we are no closer to a source of the current problems or any resolution. TI stated that she shared her concerns. SD added that the water group are doing a tremendous amount of work to get to the source of the problem. BG feels that the dust levels on the whole site are persistently high. TI explained that the cause of this was difficult to establish however the air changes of the ventilation installed on site is lower than recommended which may go some way to explaining the dust build up. AR added that HPS are reviewing ventilation for ward 2A/2B which may give an understanding as to why dirt/dust levels across the site are high. This should be part of the ward 2A/2B report at end of September.

KT queried if we can take samples of drains in theatres. SD reported that sinks had been inspected in theatre previously and not showing build up to the same extent. SD also reported that trough sinks have a drain at

the end of the sink meaning hands are not exposed to the same aerosolisation from the drains. SD advised that she would review these as part of the patient pathway which IPC will follow through.

KT queried paper towels above the CHWBs in wards being exposed to splashing. The group agreed that they hadn't considered this and would review.

ACTION – IPCT to review paper towel dispenser in relation to contamination risk from water/drain splashing.

Actions from Last Meeting

PHE unable to advise of a product for drain cleaning. Offered to trial products however due to time constraints planned to go ahead with chlorine dioxide.

Date & Time of Next Meeting

Thursday 13th September at 10.30am, LEVEL 3, Seminar Room, Room GWS-027, RHC.

Date action generated	Action	Responsible Person	Date for completion	Progress
5/9/18	Take a trough sink apart to look at the internal components and identify anything of concern.	Andy Wilson	10/9/18	Complete 5/9/18
5/9/18	Raise concerns relating to dust build up on walls with domestic services.	Susie Dodd	6/9/18	Complete 6/9/18 – David MacDonald to follow up.
5/9/18	Obtain further swabs from sink drains on 2A.	Susie Dodd and Teresa Inkster	05/09/18	Complete 5/9/18
5/9/18	Review drains in 2A/2B/1B/4B initially – photograph and swab. Discuss plan to roll out wider swabbing and drain inspection.	Susie Dodd and Teresa Inkster	10/09/18 – Initial review and swab 14/09/18 @ water group	2A/2B/4B completed 5/9/18
5/9/18	Advise on best product to use for drain cleaning.	Ian Storer	06/09/18	Complete 6/9/18
5/9/18	Provide 2B with more sink signage	Angela Johnson	05/09/18	Complete 5/9/18
5/9/18	To establish water testing programme for 2A ? wider	Teresa Inkster and Annette Rankin	14/09/18 @ water group	
5/9/18	Comms to be discussed with Jennifer Armstrong and Jane Grant after the IMT.	Jen Rodgers & Teresa Inkster	06/09/18	Complete 6/9/18
5/9/18	Comms for parents to be discussed with the press office out with this meeting.	Jen Rodgers & Teresa Inkster	05/09/18	Complete 6/9/18
5/9/18	Escalate HIIAT green to SG.	Annette Rankin	05/09/18	Complete 5/9/18
10/9/18	Follow up epidemiology carried out by HPS for wider discussion amongst IMT.	Annette Rankin		
10/9/18	Discuss planned programme of cleaning en-suite and shower drains in the ward.	Andy Wilson and Sarah Jane McMillan		
10/9/18	Arrange drain cleaning and spigot change in ward 1B.	Andy Wilson and Karen Connelly		
10/9/18	Arrange for a patient to be followed from ward 2A/B, to theatre, recovery, and back to 1B to review practice and drains in each of the areas.	Susie Dodd		

10/9/18	Find out if shock dosing on the south site needs to be done as a whole or if RHC and QEUH can be done at different times.	Andy Wilson		
10/9/18	Take forward an operational contingency plan for the chlorine dioxide dosing but also a site plan in the event of water loss for any other reason.	Melanie Hutton		
10/9/18	IPCT to review paper towel dispenser in relation to contamination risk from water/drain splashing.	Susie Dodd		

Incident Management Team
Gram negative bacteraemia – Ward 2A, RHC
13th September 2018 at 10.30am

Present:

Dr Teresa Inkster	Lead Infection Control Doctor
Angela Johnson	Senior Infection Control Nurse
Lynne Kennea	Infection Control Nurse
Dr Iain Kennedy	Consultant, Public Health
Jen Rodgers	Chief Nurse Neonatal, Children and Young People's Services
Annette Rankin	Nurse Consultant, HPS
Mary Anne Kane	Associate Director, Facilities Management
Karen Connelly	General Manager, Facilities Management
Andy Wilson	Sector Estates Manager
Sandra Devine	Associate Nurse Director, Infection Control
Kathleen Thomson	Lead Nurse
Sarah Jane McMillan	Senior Staff Nurse
Prof Brenda Gibson	Consultant Haematologist
Angela Howat	Senior Charge Nurse

In Attendance

Ann Lang (minutes)

Item

1. Introductions

Dr Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting were agreed as an accurate record with the following amendment:-

Page2, 1st para – should read “... feels that the incidence increased but requires further clarification of work.”

3. Incident Update

• Patient report

Teresa informed the group that the IMT are currently focussing on [REDACTED]

[REDACTED] Serratia has not been included in the list of organisms to date as it had not been identified in drains however after this patient had been admitted the drain in [REDACTED] room had been swabbed and was positive for Serratia, Teresa said we may be over reporting regarding this patient but the patient does now meet the agreed case definition. Teresa explained that it is not possible to determine what was contaminated first, patient or drain. She explained that drains are not sterile but that there should not be reflux back up into sinks. She also noted other background Gram negative organisms in the unit which do not meet the case definition.

Item

Typing results some patients remain outstanding and Teresa said she is not able to classify the cases in more detail. Teresa explained that typing results in an environmental incident are unreliable

- Annette noted that there was a spike earlier in the year which related to the drains, then no cases were identified in June and July and then another spike now relating to the drains. Brenda reported that they have a meeting with Kevin Hill tomorrow to discuss their clinical view and to consider the closure the unit. She also commented that staff in the ward are very concerned that the unit is not safe and seek reassurance.

- **Drain reports**

A copy of the drain reports were issued to the group with samples taken from the drains in Ward 4B, Ward 2A/B and Critical Care. Teresa said this was an action from the last IMT meeting and to look at a comparative ward in the adult hospital. It was noted that there were differences in the adult hospital compared to the children's hospital with no reflux materials found in any of the sinks in the adult hospital.

Teresa said they also looked at trough sinks and hand wash basins and Critical Care had a similar range of gram negatives. Andy reported that the drain cleaning for clinical wash hand basins started in June and the trough sinks in Ward 2A started in July. Teresa commented that she was alerted to a drain issue when nursing staff noticed black material coming up from the sink. Sandra suggested in order to establish is the organisms were coming from the patient to drain or drain to patient that when a patient is admitted to a room to swab this area and then reswab the area 5 days later. This could be done in other areas or even other hospitals as a control. Teresa advised that swabbing is not that reliable. Angela advised that she looked at the sinks and troughs in NICU and they are all satisfactory, although Hayley Kane did find a build up in Level 3. Teresa reported that she had sent images from Susie Dodd who had looked at sinks elsewhere and that the issue appears to be throughout RHC.

4. Control Measures

It was agreed that the focus should be on the drains to be cleaned in RHC and for the Water Group to look at the difference between the adult hospital and the children's hospital. Mary Anne said for all the drains to be cleaned in RHC will mean an impact on patient activity and access to all rooms. She said there will need to be a discussion on how this can be planned out clearly and third party contractors will be brought in to carry out this work. Teresa reiterated that we are not trying to sterilise the drains but to try and reduce the material coming up and figure out why this is happening.

In Ward 2A Andy confirmed that cleaning was carried out in rooms 22, 23, 24 and 25 and he is trying to arrange access to clean the other rooms. It was noted that the rooms will be out of use for approximately 2.5 hours during the clean and Teresa said that these rooms will need to be closed off and patients relocated.

Discussion took place on whether a new unit for the drains should be installed as the incidence keeps recurring. Andy informed that the taps are clear and it doesn't appear to be the whole unit in the wash hand basin that is affected. Mary Anne said if all units need to be replaced all rooms need to be emptied.

Item

From an Infection Control perspective the group agreed that they have no concerns and noted the environmental and domestic audits scored well. Teresa said the number of people on the ward at one time had greatly reduced, there was less clutter and the unit was clean.

Teresa reported that she spoke with Suzanne Lee and she asked if we have a full drain survey and if scopes had been put down the drains. Teresa recommended that we do this. Mary Anne asked Teresa to forward her the comments from Suzanne Lee and she will action these. Andy commented that if there were any blockages then the sinks would not be draining and emptying as they are.

With regards to the pond on site Teresa asked if there was any relationship between this and the drains. Mary Anne informed that there is no viable connection between the two areas and suggested that if this was the case and it was an issued it would affect both hospitals.

Mary Anne said she can link with Ian Storrar – HFS, Tom Mackin and Tim Mather who have a wide and varied knowledge of water across all countries for additional advice re surveying the system.

She said they also contributed to the writing of the guidance as it stands at the moment but this will probably need to be updated in light of what is happening at our site.

ACTION – Mary Anne to action the questions raised by Suzanne Lee.

ACTION - Jen, Mary Anne, Karen and Andy to meet to discuss a timeline for the cleaning of the drains in RHC.

ACTION – Mary Anne to discuss the drain issue with Ian Storrar, Tom Machin and Tim Mather.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

The HIIAT for this scored as RED (impact on services).

6. Communications

• Patients

[REDACTED],
Teresa explained under Duty of Candour that they should be spoken to as well. Kathleen also asked if the families in the ward at present should be informed that the incident has reopened. The group agreed that they should be. Teresa will work on information.

The Scottish Government have asked a couple of questions regarding the patients in Ward 2A/B and if there are any options to move patients outwith the hospital or to any other area. They also asked for assurances that children are safe. The group provided suggestions for the move and these included:-

- Moving patients into a ward in the adult hospital.
- Transfer patients from 4B to Beatson and move 2A/B to 4B but Teresa said this is not possible due to the ongoing issues in 4B. (post meeting discussions – this option can be included)
- Move patients to the Beatson but as there is no ITU there this could not be a possibility place.

Item

- Suspend the BMT list and house general haematology patients in the general hospital.
- To have a portacabin ward and decant patients to there but this would need to have agreement from senior management and could take a couple of weeks to put in place.

The IMT recommended consideration of a portable decant ward to allow work on the drain cleaning to be carried out.

ACTION – Mary Anne agreed to look at a portable decant ward as a matter of urgency.

ACTION – Management to meet this afternoon to discuss options to move patients.

- Staff

Sarah Jane said staff in the unit are very concerned about the ward and if it is safe for patients.

Teresa said that she will attend a meeting with Jamie Redfern and Jen to meet with staff in the unit to reassure them that there is a problem with the drains and work is ongoing to address this. This meeting will take place tomorrow morning in the Medicinema and will include Consultants, nursing reps from Ward 2A and 2B and Facilities Management. As all staff will not be able to attend this meeting Sarah Jane confirmed that this will be put on the Safety Brief to inform other staff and Brenda agreed to let the Consultants know.

- Public

The information that has been provided for patients can be amended for the public.

With regards to a press statement this will be discussed after the meeting has taken place with management this afternoon.

7. AOCB

Nil to update.

8 Action List Update

- Follow up of epidemiology carried out by HPS. Update - Annette to follow this up.
- Arrange for a patient to be following from ward and back to review practice and drains in areas. Update - Angela confirmed this has been completed.
- Find out if shock dosing on the south site needs to be done as a whole. Update - This will not be done at the moment but may be done in the future.
- Take forward an operational contingency plan for the chlorine dioxide dosing in RHC. Update - Date in diary for a meeting to take place although no plans for the adult hospital. Tom Walsh has discussed this with Jonathan Best and a meeting with Facilities and Anne Harkness has been arranged.
- IPCT to review paper towel dispenser in relation to contamination risk of water. Update - No concern regarding dispensers as above sufficient height.

9. Date and time of next meeting

The group agreed that another meeting should take place tomorrow afternoon to discuss the outcome after management have met today.

Incident Management Team
Ward 2A, RHC
14th September 2018 at 13:00

Present: Dr Teresa Inkster, Lynn Pritchard, Prof Brenda Gibson, Jenn Rodgers, Jamie Redfern, Susie Dodd, Mary Anne Kane, Dr Iain Kennedy, Annette Rankin, Tom Walsh, Pamela Joannidis, Sandra Devine, Karen Connolly, Judy Taylor, Kevin Hill, Kathleen Thompson, Claire Cook, Andy Wilson, Angela Howat

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Thursday 13th September were agreed as an accurate record. If anyone has any comments/amendments regarding yesterday's minutes can you please email Susie Dodds or Calum MacLeod.

3. Patient Update

Currently 5 patients affected in this current cluster, [REDACTED]. There have been no new cases since yesterday's meeting, although currently awaiting on a blood culture result from a patient [REDACTED]. Overall this brings the total number of patients cases to 23 that are associated with the Water Incident since March 2018.

4. Control Measures

An external expert drain contractor who are on the national procurement framework is arriving on Monday to start a drain survey and scoping exercise of Ward 2A and Ward 2B initially, with the scope of carrying out the survey of the drainage network within RHC and QEUH sites. Andy Wilson will meet this contractor who will discuss what access is required to carry out this survey. Once the survey has been complete it will be compared to the signed off drawings of the plans of the two hospitals to see if there are any inconsistencies and if so what should/can be done to rectify these.

Enhanced drain cleaning has commenced in Ward 2A, although the rooms that have been completed did not clean the CHWB drain so will have to be redone. All rooms having their drains cleaned from today will have their CHWB included. In order to carry out the drain cleaning the patient need to decant their room into a spare patient room for approximately 2 hours for the complete drain cleaning exercise. From next week a new drain cleaning product called Hiasan is going to be used to see if it is more efficient than the current chlorine based product.

Control Measures Contd

Ward 2B will have their drains cleaned over the weekend with rooms within Ward 2A being cleaned when they are available.

Annette Rankin raised aerosolisation and trying to understand how harm is being caused and how it is manifesting into blood stream infections. The aerosolisation is caused by the uncontrollable water rate coming out of the filters on the CWHB combined with 3 air changes for each room. There is already an external person currently looking at the ventilation within Ward 2A and Ward 2B but is currently on annual leave.

Dr Inkster informed the group that this has been explored during previous IMTs and air sampling has been carried out in close proximity to aerosolisation from 2 CHWB but no substantial growth was made in the lab. Air sampling has also been undertaken with regards to the chilled beam technology used within the Ward with all results negative. Dr Inkster said that the UKs leading ventilation expert Peter Hoffman should be contacted with regards with this theory of aerosolisation and the number of air changes within each room.

It was noted that air changes across RHC & QEUH is 3 per hour per room. The number of air changes within adult BMT rooms has 6 air changes per hour.

Mary Ann Kane has been in contact with a drain expert who has experienced similar problems with a hospital in Germany and is currently following this up after the meeting.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

The HIIAT for this scored as RED after the group agreed that there was major impact on service, moderate impact on risk of transmission and minor impact on severity of illness and public anxiety.

6A Phase One Contingency

Jamie Redfern informed the group of the proposed restrictions with regards to patients being admitted into Ward 2A over the next few days.

Each case will be dealt by a case by case basis by their lead clinician.

It was agreed the following should be followed

- a) Any new identified case will go to the Children's Hospital in Edinburgh. Jamie has already informed the Director there regarding this.
- b) Existing non GGC patients will be managed at their local General District Hospital. If patients turn up without warning then they will be assessed by the clinicians.
- c) Existing GGC patients where their General District Hospital is RHC will be admitted depending on a case by case basis.

Phase One Contingency Contd

Dr Iain Kennedy questioned that due to this problem potentially being throughout the whole hospital then management must liaise with CDU with regards to having a room that has had their drains/environment cleaned for patients being admitted into Ward 2A via CDU.

6B Phase Two Decant of Ward 2A and Ward 2B

Reason for decant is to have an area where we can physically review what is happening in the environment so we can get a permanent solution to this. Also we have concerns with clinical safety of constantly cleaning drains as it is not full proof.

The group agreed that Ward 2A and Ward 2B should both be decanted as most patients within Ward 2A currently use or have links to Ward 2B so cannot rule out that this issue is only for Ward 2A. The criteria of the Ward where patients are decanted into should meet the current level facilities currently already in their existing Ward before the move.

Numerous options were investigated before recommendations from this group were given some of which were:

- a) Mobile unit has been ruled out due to length of time to procure it.
- b) Decanting to the Beatson unit would not work as there is no Paediatric Intensive Care Unit on the site.
- c) Possibility of taking over a Ward at RHC Edinburgh but very impracticable, as they do not have a bone marrow service and no Ward to give up. Also staff implication for staff travelling to Edinburgh
- d) Close the unit to haematology and oncology patients and move them all to England. The planning and disruption of care to patients would be too much.

The following are the recommendations from the IMT for Executive Management to decide and have not yet been confirmed:

Split the patients into BMT and non BMT patients. The [REDACTED] BMT patients within Ward 2A should be decanted into Ward 4B BMT, QEUH. Discussion surrounding future Paediatric patients and adult patients should be discussed by consultants so that bed numbers can be planned for future admissions and discharges.

The remaining inpatients within Ward 2A and also services offered by Ward 2B should be decanted into a 28 bedded Ward within the QEUH. Specifications of this Ward should be up to the same standard as the current facility they are in. Planning on how to carry out the OPD services of Ward 2B will be looked at a further date once a location is sought.

Looking forward once the Ward is embedded into its new area within the QEUH then admissions can go back to normal and have no local delays with patients being admitted.

Jamie informed the group that everything is done within collaboration with IPCT and clinicians within the Ward.

7. Communications

Patients

[REDACTED]

Communications have been sent out with regards to increased drain cleaning being carried out within the Ward.

There will be more communications to patients/parents once a decision has been made by the Senior Management Team this afternoon.

Staff

Staff were updated this morning with the current situation. They will be updated this afternoon with the proposed recommendations from this IMT. The recommendations from the IMT will be discussed at a Senior Management meeting this afternoon.

Public

Media will be contacted once the Senior Management has met after this meeting to agree if they go with the proposals of this IMT.

7. AOCB

Discussion surrounding how long from a clinical perspective can a Ward function while being decanted. The group are planning this is only for a very short temporary period and are planning on having Ward 2A and 2B back by the winter months.

8 Action List

1. Dr Inkster will contact Peter Hoffman with regards with the theory of aerosolisation and the number of air changes within each room.
2. Mary Ann Kane is to follow up with her contact in regards to a similar problem that was found within a German Hospital.
3. Lead Nurse will liaise with CDU in relation to patients being admitted not directly into ward 2A and ensuring that they are admitted into a ward where drain cleaning has already been undertaken.

9. Date and time of next meeting

The next meeting is being held on Monday 17th September at 1300 in Seminar Room GWS-027, Level 3, RHC.

Incident Management Team
Ward 2A, RHC
17th September 2018 at 13:00

Present: Dr Teresa Inkster, Susie Dodds, Claire Cook, Kathleen Thomson, Kevin Hill, Tom Walsh, Jenn Rodgers, Jamie Redfern, Emma Sommerville, Angela Howat, Pamela Joannidis, Annette Rankin, Dr Iain Kennedy, Mary Ann Kane, Karen Connolly, Andy Wilson, Iain Storrar, Dr Elizabeth Chalmers

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Inkster welcomed everyone to the meeting and introductions were made round the table.

Dr Inkster informed the group that Professor Brenda Gibson was unable to attend today's meeting but would like the following statement to be read out to the group:

'I am in London today, but there will be Clinical representation at today's IMT. I understand that the IMT 's recommendations from Friday were not approved at the meeting with Board members and that no decision was taken. I hope that I am expressing this correctly.

There has been another positive blood culture over the weekend which is extremely worrying. As doctors, we are often called on to give expert opinion/advice in Court. We would start off by stating our qualifications and why we might be considered experts in that field. At the IMT we should adhere to the same principal. Can you please assure me that any advice taken or given on how to proceed with this worrying situation involves individuals who would be considered expert in the field of ventilation and drainage. .We should only be following expert advice. '

2. Minute of Last Meeting

The minutes of the last meeting held on Friday 14th September were discussed with numerous amendments requested.

If anyone has any comments/amendments regarding Fridays minutes can you please email Calum MacLeod.

Item

3. Patient Update

There was a positive blood culture obtained over the weekend bringing the number of cases for this cluster to 6 with an overall patient case number in relation to the water incident from March 2018 to 23 cases. [REDACTED]

[REDACTED] The organism isolated was *Stenotrophomonas*, [REDACTED]. At the moment it is classified as a possible case and the isolate will be sent for typing.

4. Control Measures

Andy Wilson updated the group saying that all drain cleaning within Ward 2A and 2B was completed over the weekend. Willie Madden from estates has carried out a walk round of Ward 1B and informed the staff that they will be next to undergo the drain cleaning.

Kathleen Thomson enquired about CDU and whether it would undergo drain cleaning as this was not included in the initial drain cleaning schedule as it is classed as low risk. Jen Rodgers said that some patients are classed as high risk and 2A patients may be admitted to CDU as a pathway for admission to Ward 2A. The group agreed the cleaning of drains within a few selected rooms within CDU will be undertaken once Ward 1B has been completed.

Annette Rankin requested sampling the water from the point of use filters after a third *Stenotrophomonas* patient has been identified which previously was linked to water more than drains. These filters are changed every 30 days and were all last changed over the weekend when the enhanced drain cleaning was undertaken. Currently the water is not tested as the point of use filters should be eliminating all bacteria flowing from the water source. Dr Inkster has agreed to this testing but only as a one off test. Samples of water should be taken from all clinical areas in ward 2B and a selection of taps and showers within Ward 2A. Andy Wilson is to organise this and liaise with Janet Young from the Labs. Annette Rankin advised testing of water should be undertaken monthly. Dr Inkster stated that this was not what was stated by the water experts and that the decision should go back to the water group and experts for discussion. Annette Rankin stated that HPS as experts were advising testing. Ian Storrar stated that HFS agreed. Further discussion took place and it was agreed to test now and that results would inform further testing. Dr Inkster stated that if the water coming through filters tested positive she would recommend ward closure. Susie Dodd stated that in depth discussion had taken place around this at previous IMTs and whilst she could appreciate that one off testing is reasonable at this stage she was not clear why monthly sampling is necessary if the one off sampling is all negative. She added that the IMT were given reassurance at previous meetings that the point of use filters would ensure the water passing through them was safe and that they could be in place for 60 days however we had chosen to change them every 30 days as an additional measure of reassurance.

Item Control Measures (Contd)

4. Discussion around what the water should be tested for was undertaken. Mary Ann Kane asked if the water can be tested for nutrients as something is keeping the bio film within the drains fed. Dr Inkster informed the group that the water will be tested for all bacterial and fungal organisms.

Dr Inkster has spoken to Peter Hoffman and his opinion is that you should not have to clean drains continuously and that the underlying issue should be resolved. He was concerned regarding the risk of dispersion of bacteria by cleaning. Dr Inkster stated that he was still to see our drain cleaning SOP which has precautions in place to minimise risk and patients are removed from rooms.

Mary Ann Kane and Andy Wilson met with the external drain expert this morning. The contractor has carried out a brief look of the campus area and will contact Mary Ann Kane this afternoon with a proposed plan of action. Mary Ann Kane has informed the contractor that Ward 2A and 2B are to be prioritised and will feed back on how the contractor plans to undergo their investigations and what is required regarding access.

Annette Rankin brought up concerns regarding parents are reusing wash hand basins to care for their child. Kathleen Thomson said that these wash bowls are for single patient use only. The group agreed on request from Annette Rankin that for the interim all hand wash basins should be single use only. This can be reviewed at a later stage.

Annette Rankin asked if staff working within Ward 2A and 2B use hand gel or wash their hand when carrying out hand hygiene. Kathleen Thomson informed her that it depends on the interventions carried out with the patient but the washing of hand is carried out more than the gelling of hands.

The IPCT are currently carrying out an inspection of all drains/sinks within the RHC campus and documenting what they find. Initial findings have highlighted that a lot of silicon is used on the contour sinks on the ground floor where it is turning black/spongy. Angela Howat gave a description of drains in 2B that were cleaned by DMA at the weekend, black gunge again was described.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

The group agreed the HIIAT score as RED.

6. Contingency/Decant

Kevin Hill fed back from the Executive meeting which happened on Friday afternoon after the IMT. The group looked at the recommendations from the IMT meeting and had lengthy discussions about each one. Giving consideration to the options the executive group will wait until drainage expert will give a preliminary scope on how they will carry out their work and see what they find. Susie Dodd raise her concerns that a waiting on a decision to decant the ward would lead to anxiety to staff.

Item

6. Contingency/Decant (Contd)

Kevin Hill assured the group that a decant option was not off the table. Discussions took place surrounding the decant, the type of work that would be carried out within Ward 2A/2B and the timeframe in which this work might be completed. It was stressed that a decant should be as short as possible and may take up to 4 weeks

Extensive discussion took place around whether or not the patient admission criteria remains as was agreed on Friday or can admissions return to normal. Dr Inkster expressed concern about admitting patients with a cancer diagnosis into the ward at such a difficult of time for families. She highlighted the disruptive nature of ongoing drain cleaning and stated that this was a high risk BMT /haemonc ward. Jamie Redfern felt that a timeframe for the decision on decant would help inform the decision for admissions.

The group agreed that any new referrals of patients should be sent to the Children's Hospital in Edinburgh as not to include them in any disruption caused by a planned decant. Restrictions on patients without GG&C being redirected to their District General Hospital will be lifted. Patients who are already on Chemotherapy can still attend Ward 2A/2B instead of attending their District General Hospital

It was agreed that in the meantime the drain cleaning will continue with the introduction of the new drain cleaning solution being started this week and continuing on a weekly basis

Mary Ann Kane wanted to emphasise that the facility that children would be moved to on the adult QEUH site was not better from a ventilation perspective. The only difference would be patients (excluding BMT patients) not seeing the visible bio film within the patient sinks . Dr Inkster stated that there were less sinks in an adult ward. There are no trough sinks and sinks in bathrooms are larger and do not have the same degree of splash. The decant enables a detailed assessment of wards 2A/B

It would take about 7-10 days for a decant to be planned/implemented. This does not include any further arrangements facilities would need to make to the ward with regards to facilities etc.

This IMT still recommends a decant of Ward 2A/2B as there is ongoing issues that need to be addressed that cannot be addressed while the ward is occupied and to identify a permanent solution to the drains/water issues.

7. Communications

Patients

[REDACTED] Two more families will be spoken to by Dr Inkster accompanied by Jamie Redfern.

It was agreed that the statement created on Friday but not shared with parents can be updated. It should mention that there was enhanced cleaning undertaken over the weekend and ongoing maintenance of drain cleaning being undertaken. .

Staff

Jamie Redfern reported that he had met with the ward 2A and 2B staff on Friday afternoon and that a large number had attended. He reported that staff were visibly upset and anxiety and frustration was evident. Angela Howatt thanked Jamie for the update and stated that they did appreciate being spoken to directly by the General Manager . Since Friday, Emma Somerville reported that some staff have turned to their union asking for advice about putting their patients at risk by nursing them within the ward.

Public

Claire Cook from the press office said that no pro active statement was released regarding the possibility of decanting. A draft statement at the weekend stated that enhanced cleaning was being undertaken in Ward 2A and Ward 2B.

7. AOCB

Nothing to report

8. Action List

1. Andy Wilson with organise the drain cleaning of a few selected rooms within CDU once Ward 1B has been complete.
2. Water samples for Ward 2A and Ward 2B are to be taken. Andy Wilson is to contact Janet Young about the incoming samples.
3. Mary Ann Kane is to feedback on what the external drain expert proposed plan is.
4. All patient wash bowls are to be single use only

9. Date and time of next meeting

Next meeting is being held on Tuesday 18th September at 1300 in Seminar Room, Level 2, RHC

Incident Management Team
Ward 2A, RHC
18th September 2018 at 13:00

Present: Dr Teresa Inkster, Susie Dodds, Lorraine Dick, Tom Walsh, Kevin Hill, Jamie Redfern, Annette Rankin, Susie Dodd, Kathleen Thomson, Emma Sommerville, Professor Brenda Gibson, Grant Archibald, Mary Ann Kane, Angela Howat, Andy Wilson, Karen Connolly, Pamela Joannidis

In Attendance: Calum MacLeod (minutes)

Apologies: Dr Iain Kennedy

Item

1. Introductions

Dr Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Monday 17th September were discussed with the following amendments:-

Tom Walsh sought clarification on the written comment submitted by Professor Gibson that no decision was taken regarding a decant of Ward 2A/2B. The group noted that this was clarified later in the minute (section 6), and this was confirmed by Tom Walsh and Kevin Hill.

If anyone has any comments/amendments regarding Fridays minutes can you please email Calum MacLeod.

3. Patient Update

No patients are giving cause for concern and no new cases have been reported.

Susie Dodds clarified dates surrounding the last positive patient and why it was included in the numbers of this incident. [REDACTED]

Item

4. Control Measures

Dr Inkster informed the group of recent positive legionella results had been taken at the QEUH campus. The Infection Control Team have to alert colleagues if legionella is found on site. Sampling of water is routinely taken and is tested for legionella and pseudomonas. Over the summer months the incoming water supply was recorded at being 22 degrees which gives legionella a much greater chance to flourish. At present one outlet has a low level of legionella present. Control measures for legionella are already in place for high risk areas with the use of point of use filters on the taps and the introduction of chlorine dioxide dosing of the water. No positive results of legionella have been found within the RHC site. The last positive legionella result was on the 9th of September within the QEUH.

Andy Wilson updated the progress of the drain cleaning. Access to Ward 1B has been challenging and estates are currently working on a timeframe on when it will be finished.

Andy Wilson informed the group that room 18 within CDU has been cleaned. Kathleen Thomson has identified three more rooms (19, 20 & 21) that should be cleaned in case more are required during patient pathway into Ward 2A. Kathleen Thomson will email Andy Wilson with the room numbers within CDU.

The weekly sanitisation of drains with HISSAN product started this morning in non patient rooms in Ward 2A/2B. The reason this weekly sanitation has begun in non patient rooms is due to no communication been given to patients/parent regarding this. Dr Inkster has agreed to write a few lines for staff to communicate to parents/patients regarding the drain cleaning.

The external drain survey contractor has had access to isolation room 22 within Ward 2A. Initial report is that they have found nothing but estates will update the group once the survey has been complete.

Annette Rankin inquired about environmental swabbing of environment and aerolisation. Dr Inkster requires an empty room which has not had the drain cleaning already carried out for this to be undertaken.

The implementation of the disposable basins had been complete yesterday afternoon after the request from Annette Rankin.

Pamela Joannidis and Senior ICNs have carried out a visual drain inspection of every drain outlet within the RHC using a torch to look down into them. The cleanest of the drains were found in Ward 2A, 2B, 3B, Theatres and Level 4 Mental Health. Pamela showed the group some of the pictures that were taken of the drains showing some drains having loose sealant present in them. Pamela will compile a report and share with the group. Pamela will also notify Mary Ann Kane of some sinks that were found during the inspection which look like are not in use.

Item

4. **Control Measures Contd**

Annette Rankin asked if any drain within the adult QEUH had been looked at. Dr Inkster informed her that she has personally seen the drains within Ward 4B BMT and they looked very good.

Grant Archibald has asked if there was a way where all the different types of sinks and where they are positioned can be pulled together and cross referenced to Pamela Joannidis visual inspection of the drains. This could show if there is any pattern to certain types of sink drains and/or positions of where sinks are located with the RHC site. Also cross reference is there is difference from using the replacement spigot part that has been carried out in all high risk wards compared to areas that have not.

5. **Healthcare Infection Incident Assessment Tool (HIIAT)**

The group agreed the HIIAT score as RED after it agreed there is a major impact on service, moderate risk of transmission and minor severity of illness and public anxiety.

6. **Contingency/Decant**

The group is confident that the contingency plans in place should remain as the drain cleaning regime is in place.

Grant Archibald informed the group that following a water meeting this morning it was agreed that BMT patients currently in Ward 2A will be decanted to Ward 4B BMT unit within the QEUH. The Paediatric service said it would like 4 beds but this will later be confirmed after clinicians will review their workload for the next 4 weeks to map out how many beds would be required. Also discussion with their adult counterparts will need to be sought so that they can look at their workload perspective as well. It was agreed that a separate discussion involving both adult and paediatric clinicians would need to discuss this. There is currently no set date of when this will happen.

The majority of patients (Haematology/oncology) will go to an alternative 28 bedded ward within the QEUH. The group will need to see if Ward 2A and Ward 2B can function within that space or more alternative space would be required to accommodate the patients. No final decision has been made with regards to a date or what ward area this will be, apart from the BMT patients who will be decanting to Ward 4B BMT, QEUH.

Before the decant goes ahead multiple pathways for patients will need to be agreed giving the geography that patients will need access to x-ray, theatres etc within the RHC. Overall the safety of each patient is paramount so implementation of the plans should be thoroughly examined with appropriate departments and cross referenced with Infection Control.

The group has agreed that an area within the RHC site would not be suitable for a decant from the initial findings of Pamela Joannidis visual drain survey and with the current drain issues. Every option possible has been looked at

extensively but all have come with problems that outweigh a move into the QEUH building.

7. Communications

Dr Inkster will write up some links of communication for staff to tell patients/parents about the HISAN product drain cleaning being implemented.

After speaking to parents of patients yesterday they have expressed their anxiety about all these temporary measures that are being put in place. They did mention a possible decant of the ward to enable any physical work can be undertaken to find a permanent solution.

It was agreed a statement for staff/parents/patients and the press will be drawn up out with this group. Each communication should have the same common narrative with strict disciplines.

8. AOCB

Annette Rankin has had a request from the government for a detail update of every route of transmission for all the patients effected by the end of today. Annette has requested if this can be pushed back to close of play tomorrow.

Annette Rankin has had an urgent request from the government who are looking for full details on regards to what is being considered in regards with a decant. Kevin Hill will provide her with a list of all options that have been discussed and examined by the executive group before making any decision.

9. Action List

- 1. Kathleen Thomson is to email Andy Wilson with a list of room numbers they want drain cleaning to be carried out within CDU.**
- 2. Dr Inkster will write some communication for patients/parents in relation to the HISAN drain cleaning regime.**
- 3. HPS have requested environmental and if possible aerolisation samples of a room that has already not been cleaned.**
- 4. Pamela Joannidis will send out her findings from the visual drain inspection to the group once it is complete.**
- 5. A survey to see if there is a pattern of dirty drains on wether different types of sinks and their positioning within the RHC**
- 6. Pathways for patients being decanted into an adult QEUH 28 bedded ward are to be drawn up.**
- 7. Communication to the press/staff and patients will be drawn up out with this group.**
- 8. Annette Rankin will respond to the government request surrounding routes of transmission for all affected patients and what options are being considered with regards to a decant of the ward.**

9. Date and time of next meeting

Next meeting is being held on Wednesday at 1300 in Seminar Room GWS-031, Level 3, RHC.

Incident Management Team
Ward 2A, RHC
19th September 2018 at 13:00

Present: Dr Teresa Inkster, Susie Dodds, Andy Wilson, Tom Walsh, Grant Archibald, Mary Ann Kane, Pamela Joannidis, Annette Rankin, Karen Connolly, Susie Dodd, Kathleen Thomson, Emma Sommerville, Jenn Rodgers, Jamie Redfern, Professor Brenda Gibson, Mark Dell, Angela Howat, Dr Alan Mathers

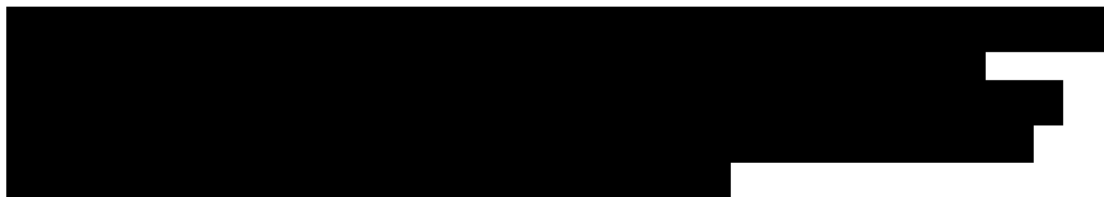
Teleconference: Ian Storrar

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Inkster welcomed everyone to the meeting and introductions were made round the table.



2. Minute of Last Meeting

The minutes of the last meeting held on Tuesday 18th September were discussed with no amendments requested at the time. If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [redacted]

Update on Actions from last meeting

1. Kathleen Thomson has emailed Andy Wilson regarding what rooms are required to have drain cleaning carried out. Andy informed Kathleen that this will be carried out once cleaning within Ward 1B is complete.
2. Dr Inkster has completed the communication regarding drain cleaning.
3. Jamie Redfern (Kevin) is to identify a room where sampling of environment and aero-lization can be carried out.
4. Pamela Joannidis has sent all images and documentation to estates regarding the recent visual drain survey of RHC. Estates are currently working on a database for the information.
5. Pathways for patients being decanted into adult wards are currently being worked on and will be sent out after this meeting.

6. All communications for patients/parents and press was completed.
7. Annette Rankin will respond to the government request for route of transmission for all affected patients and what decant options were considered by close of play today. The group agreed that the decant options is a bit redundant now but will send on all suggestions that were considered.

3. Patient Update

No patients are giving cause for concern and no new cases have been reported. None of the infected patients are currently in the ward.

Jenn Rodgers enquired about the pathway for patients who go through Ward 1B and Clinics within OPD areas. Dr Inkster said this was fine for patients to take this route as long as the drains have been cleaned and if possible patients spend as short as time as possible in the ward/clinic.

Dr Inkster informed the group that immune compromised patients in renal wards are fine where they are from continuing monitoring of the renal wards and results from specimens. She stressed that other groups are not as immunosuppressed as haem-onc patients. Only the patients within ward 2A/2B are affected.

4. Control Measures

Andy Wilson informed the group that 15 rooms within ward 1B was completed yesterday. The whole ward including communal areas will be finished by 9am tomorrow morning. A request to carry out a drain clean of a patients room within Ward 2C has been received in which Andy Wilson will organise.

External contractor is in Ward 2B today and will meet up with Mary Ann Kane after this meeting to plan what further access is needed before decant is undertaken. All surveys are recorded so anything that is found can be documented and made available to the group if required.

Mary Ann Kane informed the group that what was reported as sealant found in certain drains during Pamela Joannidis visual inspection was in fact the gasket that is used on the bracket/spigot of each sink. The gasket is becoming porous and expanding after being exposed to Hydrochloride based products. Grant Archibald has requested that instead of carrying out visual inspections of each drain to see if the gasket needs replaced, should you not just put a gasket in a solution of hydrochloride and see how long it lasts. This would then determine how long and often each gasket needs replaced. Ian Storrar is currently in contact with Armitage Shanks regarding this which has been reported is an industry wide problem.

Item

4 **Control Measures**

A local algorithm for doctors to use in relation to patients who are in General District Hospitals is to be drawn up by Clinicians which will outline what should be done regarding patients who are currently in their General District Hospital but require treatment within RHC. This would be beneficial so that every doctor is following set protocols for every patient. Once this algorithm has been drawn up it should be sent to Dr Jennifer Armstrong to be signed off. Grant Archibald will create a similar algorithm for the board take this away as an action for himself.

5. **Healthcare Infection Incident Assessment Tool (HIIAT)**

The group agreed the HIIAT score as RED.

6. **Contingency/Decant**

Dr Inkster spoke to Grant McQuaker Lead Clinician for adult BMT within the QEUH. Grant raised his concerns at running ward 4B BMT at full capacity in case any problems occur with existing rooms and a patient requires to be moved. It was agreed that 3 beds will be needed in case there are any faults so that 1 room is kept vacant.

Grant Archibald said the decant of paediatric BMT patients into Ward 4B BMT, QEUH should be sought as soon as possible.

Ward 6A within the QEUH has been chosen for the ward for the majority of the patients within ward 2A/2B to be decanted into. The ward itself has been atrophying admissions in the last few days which is planned to be completely empty by Saturday 22nd September. The adult patients which consist of Rheumatology and General Medicine patients, will be moved to Ward 2C at Gartnavel.

SD stated that it was important to carry out the same standard of cleaning on ward 6A as was achieved on 2A and 2B immediately prior to the 8 week period in which no gram negative blood cultures were reported. Once Ward 6A has been emptied it was agreed that drain cleaning (including ensuite sinks and showers), terminal clean followed by HPV clean, then point of use filters fitted to taps and showers. This does not include the rooms in Ward 4B, BMT who have already had their drains cleaned and point of use filters installed. The ward must be cleaned as much as possible before it is moved in. Having more cleaning of the ward may put back the move by a few days in order for all this to be carried out. The important thing is that the ward is moved as a unit and that everyone is kept in the loop with regards on the move. Dr Gibson raised her concerns regarding staffing the BMT unit over the weekend as they would require time to see who can cover the patients when they move. Jamie informed the group that work regarding staffing the BMT patients within the QEUH has been included in their patient pathway.

Item

6. Contingency/Decant Contd

Grant Archibald reiterated that from recommendations for this IMT he has reached an agreement for the number of beds for BMT patients to be located there and created space as in ward 6A for the remaining patients from Ward 2A/2B to be housed. Once ward 6A has been vacated, cleaning will take place to the expected standard that is present in ward 2A and a safe environment as possible is created for the paediatric patients to be transferred over.

7. Communications**Patients/Parents**

Families were spoken to last night with the initial feedback from them was relief. Some parents of patients found out on news channels before being informed by themselves personally [REDACTED].

Staff

All staff have been kept updated daily by their managers. Staff in the QEUH have been told that they are moving to Gartnavel as this move has consequence with regards to them travelling to work.

Public

Mark Dell from the press office informed the group that some of the articles reported by news companies say that Ward 2A /2B had already moved. Grant Archibald will take advice from communications if another communication to correct this should be released or if that could lead to confusion. A press statement will be agreed by the Dr Inkster and Grant Archibald.

8. AOCB

Dr Inkster brought up the epidemiology of this incident. Microbiology colleagues presented epidemiology and resistance data to the haematologists today. Dr Inkster requested outstanding reports from PH and HPS i. to enable a full report to be put together. Dr Gibson stated the microbiology data clearly demonstrated the increased in Gram negatives .

Dr Inkster has requested that this IMT should no longer be chaired by a member of the Infection Control Team as it is now mostly about the logistics of the decant of patients. It was agreed that Jamie Redfern or Kevin Hill will take over the IMT with the Infection Control Team present in case any queries are raised.

Grant Archibald thanked Dr Inkster for chairing this IMT and also thanked everyone's hard work and input in relation to this incident.

Annette Rankin stated that as HIIAT is red IMT has to continue therefore it was agreed that there would be a joint chair, Dr Inkster and Jamie Redfern or Kevin Hill

9. Action List

- 1. Jamie Redfern is to identify a room where environmental sampling can take place.**
- 2. Estates are currently working on a database to see if there is any patterns regarding types of sinks and their positions throughout the hospital.**
- 3. Pathways for decant of patients will be sent out by Jamie Redfern.**
- 4. Brenda Gibson will create an algorithm for doctors to follow in relation to checking up on patients who are in General District Hospitals.**
- 5. Ian Storrar will report back with regards to the lifespan of gaskets being used.**
- 6. Advice is to be sought form the Executive Group surrounding Annette Rankin knowing one of the patients currently being treated in Ward 2A.**

10. Date and time of next meeting

Next meeting is being held on Thursday 20th September at 1300

Incident Management Team
Ward 2A, RHC
20th September 2018 at 13:00

Present: Dr Teresa Inkster (Chair), Tom Walsh, Jamie Redfern, Stephen Bowhay, Annette Rankin, Mary Ann Kane, Prof Brenda Gibson, Pamela Joannidis, Angela Howat, Emma Sommerville, Karen Connolly, Kathleen Thomson, Jenn Rodgers, Dr Iain Kennedy, Kevin Hill, Lynne Robertson

Apologies: Ian Storrar

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Wednesday 19th September were discussed with the following amendments :-

[REDACTED]

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

It was discussed that there needs to be a focussed detail on the IMT with regards to an Infection Control point of view and an operational needs point of view regarding the decant of the ward. It was agreed that there will be separate meeting regarding the decant of the wards and weekly IMT meetings regarding Infection Control issues. If circumstances change then this can be reviewed.

Update on Actions from last meeting

1. A room that has not had drain cleaning has been identified and environmental sampling is currently underway.
2. The database being created with regards to any patterns in the types of sinks and their positions within RHC is ongoing.
3. The Pathways for patients is still under review and will be sent out when finalised.
4. Algorithm for doctors to follow is ongoing.
5. Annette Rankin will speak to Ian Storrar about feedback surrounding the gaskets being used.
6. [REDACTED]
7. Reports with regards to epidemiology by Public Health and HPS will be completed by the end of the week. It was agreed that a subgroup will consist of Dr Inkster, Dr Kennedy, Annette Rankin, and Microbiology colleagues including Michael Lockhart should be created. Dr Inkster will organise this subgroup so all reports can be pulled together.

Item**3. Patient Update**

A new positive gram negative patient has been identified. [REDACTED]

It is unknown if this case will be counted as the gram negative is still unknown and full results of this organism won't be available until tomorrow.

4. Control Measures

Drain cleaning within Ward 1B was completed this morning. The four rooms within CDU will be completed by the end of the day so they can be used for patients being admitted into Ward 2A via CDU.

Kathleen Thomson will email Andy Wilson the two rooms that have been identified within Ward 2C in case Ward 2A requires more beds. These rooms will replicate what estates did in CDU. The beds within Ward 2C are winter beds and will remain not in use in case needed by haematology/oncology patients. Jamie Redfern will speak to Senior Charge Nurse Kalsoom Mohammed about using these two rooms and have them ring fenced only to be opened when needed.

Item

4. **Control Measures Contd**

External drain survey is ongoing where one room in Ward 2A and 2B have been completed. The contractor now requires the ward to be emptied in which all drains in ward 2A and ward 2B will be examined. In relation to the rest of the hospital a selection of drains within each ward will be investigated.

Pamela Joannidis will send Jamie Redfern the spreadsheet of her visual drain survey. All hand written stuff is with estates and is being compared to the drawings.

5. **Healthcare Infection Incident Assessment Tool (HIIAT)**

The group agreed the HIIAT score as RED.

Once the ward has been decanted the group will be in a position to reduce the HIIAT score.

6. **Contingency/Decant**

Kevin Hill informed the group that there are three separate decant plans for each patient group.

Plan 1 Decant all Non BMT patients into Ward 6A

Plan 2 Decant of BMT patients into Ward 4B, BMT, QEUH

Plan 3 Decant of Ward 2B into Ward 6A, QEUH

The current version in progress (version 7) has been sent to executive colleagues for comment and Kevin is meeting with them later on this evening. Each of the plans have been subdivided into different aspects surrounding staffing, patient pathways, resus arrangements etc.

Ward 6A which had previously been reported as a 28 bedded ward is actually a 27 bedded ward with communal bathroom. This ward will be vacated by midday Saturday 22nd September. Once ward has been vacated estates and facilities will carry out a drain clean, deep clean of ward, insert point of use filters to taps/showers and organise an HPV clean. Mary Ann Kane said that due to the bank holiday weekend the ward will not be ready in a facilities/estates viewpoint until Thursday.

The group made the decision that they aim to move all BMT patients and Ward 2A on Thursday 27th September. A decision on whether to move Ward 2B during the Wednesday night and start treatments on Thursday morning is still to be agreed.

Item

7. Communications**Patients/Parents**

[REDACTED]

Dr Inkster said that future IMT meetings, key people should stay behind after the meeting and agree on a statement to be released, which will limit the number of changes made by so many people

Staff

Jamie Redfern provided staff with an update and reassurance about what is being planned regarding different decant options being undertaken.

Public

No further enquiries but expecting more media interest after First Ministers questions

Kevin Hill has created a statement regarding the decant options which need to be signed off by Jane Grant before its sent onto Annette Rankin to pass onto the government.

Annette Rankin has received numerous urgent requests from the government. It was agreed that Tom Walsh, Dr Inkster and Kevin Hill will respond to these questions by midday tomorrow Friday 21st September. The group asked Annette if it would be worthwhile for another teleconference to be held with government officials so that all their queries can be answered at once.

8. AOCB

Kathleen Thomson asked what would happen if a query MERs patient arrives at CDU would they use one of the four beds already assigned for haematology/oncology patient? Jamie Redfern said this will be covered at the decant meeting being held tomorrow.

9. Action List

- 1. Dr Inkster will organise a subgroup so that all epidemiology reports can be pulled together from Public Health and HPS colleagues.**
- 2. Estates are currently working on a database to identify any patterns in types of sinks and position within RHC is being developed.**
- 3. Pathways for decant of patients is currently under review.**
- 4. Dr Brenda Gibson is working on an algorithm for doctors to follow in relation to checking up on patients in General District Hospitals.**
- 5. Pamela Joannidis will send Jamie Redfern the spreadsheet of her findings from her visual inspection of drains within the RHC.**
- 6. Annette Rankin will speak to Ian Storrar in relation to the lifespan of the gaskets being used.**
- 7. Tom Walsh, Kevin Hill and Dr Inkster will respond to the government questions by midday Friday.**
- 8. Annette Rankin will ask the government if they would like a teleconference with members of the IMT so that all queries can be answered.**

10. Date and time of next meeting

Next IMT meeting is at 1300 in on Tuesday 25th September at 1300 in Conference Room GWS-009, Level 3, RHC

Incident Management Team
Ward 2A, RHC
25th September 2018 at 13:00

Present: Susie Dodd (Chair), Prof Brenda Gibson, Kevin Hill, Emma Sommerville, Susie Dodd, Angela Howat, Annette Rankin, Jenn Rodgers, Kathleen Thomson, Sandra Devine, Andy Wilson, William Hunter

Apologies: Jamie Redfern, Dr Iain Kennedy

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Susie Dodd welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Thursday 20th September were discussed with the following amendments :-

Page 3, 2nd last paragraph, last sentence should read “ward will not be ready in a facilities/estates viewpoint until Thursday”

Page4, 2nd paragraph should read “Jamie Redfern provided staff with an update and reassurance about what is being planned regarding different decant options under consideration”

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from last meeting

1. Dr Inkster has sent out dates to meet up with HPS and Public Health to meet up and pull together all their epidemiology reports.
2. Pathways for decant of patients into ward 6A and Ward 4B QEUH have been completed.
3. Dr Brenda Gibson has completed an algorithm for doctors to follow with regards to checking up on patients in General District hospitals
4. Pamela Joannidis has sent her findings of her visual CHWB walk round to Jamie Redfern.
5. Annette Rankin has contacted Ian Storrar in relation to the lifespan of the gaskets being used within the drainage system of the CHWB.
6. All government questions were responded to.
7. Annette Rankin asked the government as considering if they would like a teleconference with members of the IMT.

Item

3. Patient Update

There have been no new cases reported since the last IMT. Total cases associated with the water incident remains at 23.

None of the 23 cases are giving cause for concern as a direct result of the bacteraemia associated with this incident.

4. Control Measures

An inspection of Ward 6A was carried out on Friday 21st September in preparation for the move. A number of issues were picked up and handed over to facilities.

A further inspection has been carried out this morning where most items identified have been complete. Some outstanding issues include floor repairs, vent cleaning and general environmental cleaning. After vent cleaning, HPV cleaning will be repeated in the clean utility. The entire ward will then undergo another domestic clean. The Infection prevention & Control Team will then do a final inspection and email confirmation that they are satisfied that the ward is ready for decant..

Susie Dodds will contact Karen Prince (SCN OPD) in relation to rooms occupied within Clinic 2 in the Out Patient area by haem-onc patients. These can then have point of use filters fitted and a programme of drain cleaning commenced.

Susie Dodds will send Andy Wilson the tag numbers of the doors to these clinic rooms.

The group has requested that if no beds are available in Ward 2A, patients usually go to Ward 3C where one room has been identified for this. Andy Wilson informed the group that numerous rooms within Ward 3C have already got point of use filters already in place within patient rooms. These rooms could be included in drain cleaning regime if required. It was suggested that specified rooms should be identified on wards throughout RHC where 2a/b patients may be admitted so that a programme of drain cleaning can be maintained more easily. At present the requests are sporadic and Andy Wilson noted that this was difficult to resource. Kathleen Thomson will identify rooms and email tag numbers to Andy Wilson.

Andy Wilson noted that the agreed chemical drain clean planned for clinical areas on 2A last week did not go ahead. Facilities were awaiting feedback from the IMT that the parents had received communications about this. It was agreed that the chemical clean would be carried out today instead in order to complete the cycle of agreed cleaning for the area.

A mechanical drain clean in Ward 6A was carried out last week.

Item

4. Control Measures Contd

Andy queried if a regular programme of drain cleaning should be carried out on 6A. Kathleen Thomson noted that if this is done on 6A it should be replicated on 4B. Discussion followed and it was noted that there has been no routine drain cleaning on the adult site to date therefore this may cause anxiety amongst staff and patients if it is now commenced. Susie will consult with Dr Inkster to establish if drain cleaning on 6A and 4B is required.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

The group agreed the HIIAT score as RED.

6. Contingency/Decant

There has been numerous meetings regarding the decant of ward 2A/2B into Ward 6A and Ward 4B BMT. Currently on version 12 of the patient pathway.

It has been agreed that Ward 2A/2B will move tomorrow 26th September into Ward 6A and Ward 4B BMT. Every patient has got their own plan of what room they will be moved to and who will be taking them. A move checklist has been drawn up on how they are going to achieve this.

Mock-ups of the resus teams for Ward 6A and Ward 4B BMT have been conducted. Numerous Standard Operating Procedures (SOP) have been drawn up and agreed in relation to this move. Plans around security doors, safe guarding child protection, IT, tele –communications and Pharmacy have all been finalised. Plans for medical and nursing cover for patients within Ward 4B BMT and Ward 6A have been drawn up. This will be reviewed over time.

Kevin Hill would like to thank everyone for all their efforts to get to this stage and appreciated everyone's effort over the holiday weekend.

7. Communications

Patients/Parents

All inpatient parents have received a letter regarding an update on the decant situation.

Angela Howat and Professor Gibson will draft a letter that will be sent to all out patient attendees of Ward 2B. This draft letter will be agreed at the executive meeting before being sent out to parents.

A sign will be placed on the Ward access doors stating where they have moved to and a contact number for them call if they need more assistance.

Staff

Staff were updated last week. It was agreed that no further staff update was required at this stage but that this would be reviewed again after the next IMT.

Item

7. **Patients/Parents**

Emma Somerville noted that she is in the process of informing the remaining inpatient parents of tomorrow's decant details. No concerns have been noted over the weekend.

Public

The group have not heard of any media interest regarding this over the weekend.

It was suggested that the ward move should be posted on the GGC Facebook page.

Government

Annette Rankin has shared further questions from the Scottish Government and MSPs. They have requested information on any patients that have had their treatment delayed since June 2015 with regards to this water incident. This information is currently being looked into and will be made available as soon as possible.

8. **AOCB**

Sandra Devine asked for an update on the drain survey. Nothing has been done further since the two individual rooms within Ward 2A and Ward 2B were carried out which found nothing. When the decant gets underway tomorrow the drain survey contractors can move in and carry out an extensive drain survey of ward 2A/2B to find the root cause of the drains.

Emma Somerville has requested that estates should carry out any additional works which require empty rooms and HAI SCRIBE whilst 2A and 2B are empty. Emma Somerville will formulate a list of works required on the ward and forward to Billy Hunter.

9. **Action List**

1. **Andy Wilson will provide list of all rooms within RHC that have a drain cleaning regime underway and also has point of use tap filters installed.**
2. **Kathleen Thomson will identify rooms within RHC that could be used for Ward 2A patients when 6A is full.**
3. **Susie Dodds will meet up with Karen Prince from Outpatients to identify OPD rooms that require point of use filters and drain cleaning and forward this onto Andy Wilson.**
4. **Susie Dodds will get confirmation on what the drain cleaning regime for Ward 6A and Ward 4B, BMT are to be.**
5. **Estates currently working on database identifying patterns in the type of sinks and their position within RHC.**
6. **Awaiting reply from Ian Storrar regarding lifespan of gaskets.**

10. **Date and time of next meeting**

Next IMT meeting is at 1200 on Thursday 27th September in Conference Room GWS-008, Level 3, RHC

Incident Management Team
Ward 2A, RHC
28th September 2018 at 11:00
Hospital at Night Room, Level 2

Present: Dr Teresa Inkster, Susie Dodd, Melanie Hutton, Alan Gallacher, Tom Walsh, Annette Rankin, William Hunter, Karen Connolly, Jen Rodgers, Kevin Hill, Jamie Redfern, Angela Johnson, Prof Brenda Gibson, April McDaid, Dr Iain Kennedy

Apologies: Sandra Devine, Ian Storrar, Pamela Joannidis,

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Tuesday 25th September were discussed with the following amendments :-

Page 1, Section 2, 3rd paragraph should read – “different option under consideration”

Page 1, Section 2, last paragraph should read – “Jamie Redfern provided staff with an update and reassurance about what is being planned regarding different decant options under consideration”

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from last meeting

1. Alan Gallagher is currently making a list of all rooms that have undergone drain cleaning and had point of use filters installed so that they can be used for Ward 2A patients when Ward 6A is full.
2. Susie Dodds met up with Karen Prince from Outpatients and identified 2 rooms which she has passed along to estates.
3. An initial drain clean of Ward 6A was carried out before patients were moved in but regular drain cleans will not be carried out within Ward 6A/Ward 4B.
4. Estates currently working on database identifying patterns in the type of sinks and their position within RHC.
5. Ian Storrar is currently awaiting a response from the manufacturer with regards to the lifespan of gaskets.

Item

3. Patient Update

No new cases have been reported with no patients giving any cause for concern.

The full decant of patients from Ward 2A and Ward 2B was undertaken on Wednesday 26th September into Ward 6A and Ward 4BBMT in the QEUH.

Professor Gibson raised her concerns that there was no central monitoring for patients within Ward 6A and are currently having to carry out enhanced observation of patients in certain rooms to help with monitoring which is proving a big resource on staffing. Jenn Rodgers had been in contact with facilities about installing a central monitoring unit but was found to be very complex to install so additional nursing resources were put in place to ensure the safety of the patients were looked after.

4. Epidemiology

Dr Kennedy gave a brief talk regarding his epidemiology findings comparing infection rates from the old Yorkhill site and the new RHC site, bearing in mind that occupied bed numbers had increased since the move into the new hospital. Dr Teresa Inkster and Dr Iain Kennedy will meet out with this meeting so they can combine their epidemiology reports, which is proving to be very complex as numerous patients have multiple organisms. Dr Inkster is hoping to have a report ready by the end of next week.

Annette Rankin said the report currently being developed in relation to the water incident as a whole will be made available soon, with a separate report regarding Ward 2A and 2B to be followed after that. Epidemiology from HPS will not be shared until the final ward 2A/B report

Jamie Redfern will send Dr Kennedy data regarding Ward 2A patients from 2015.

Looking forward Dr Inkster informed the group that Ward 2A/2B will revert to triggers for environmental organisms Every Gram negative bacteraemia, will continue to be reported to Dr Inkster who will assess if it's associated with water.

5. Control Measures

William Hunter gave an update regarding the drain survey which started yesterday and will be continued over the weekend within ward 2A and ward 2B. A ventilation survey is also being carried out within the two wards while it is closed. These surveys will help to inform the group how we intend to take things forward with regards to what is found and any replacement pipes/ventilation segments need replaced. To date the drain survey has not shown anything that is giving any cause for concern.

Item

5 Control Measures Contd

While Ward 2A and 2B are closed estates are carrying out numerous repairs and maintenance in regards to flooring and vent cleaning. Once the vent cleaning has been complete a survey of the will be undertaken to see if they are any issues regarding this.

The water technical group are meeting on Tuesday who will decide on whether they shock dose the water system as this has a certain impact on the water infrastructure. Dr Inkster stated that replacement of the CWHB taps and pipe work may need to be undertaken based on successful interventions in the published literature.

Dr Inkster requested a report from the water technical group be made available for next weeks IMT regarding the action plan for the empty wards.

Infection Prevention & Control Team (IPCT) are maintaining daily visits to Ward 6A & ward 4B BMT offering support and advice if required. The IPCT will not be providing a daily report of observation of practice for Ward 6A this week while they are settling in.

There was a shower filter failure in Ward 2A, growing the Gram negative Comamonas sp. Colin Purdon oversaw the removal of the shower filter and sent it back to the company for inspection. Water samples were taken before removal and after installation of a new shower filter.

Karen Connolly gave a list of the following rooms that will be ready if required for Ward 2A patients CDU (17/18/19/20), Ward 2C (26/31) Ward 1B, Ward 3C (3)

Ward 4B in the QEUH have portable hepafilter air units and the group asked why they were not in Ward 6A. Dr Inkster said that there had been high particle counts, due to dust not fungi, within Ward 4B and that 4B did not have protection of anterooms. Karen Connolly will see if there are any available for step down patients moving from Ward 4B BMT into Ward 6A.

6. Healthcare Infection Incident Assessment Tool (HIIAT)

The group agreed that an AMBER HIIAT score would remain for the duration of Ward 2A/2B decant and will not be re-assessed until the patients have moved back into ward 2A and 2B.

If anything happens clinically or operationally then the IMT can increase this to RED.

Some members of the group raised their concerns that from an operational point of view that the HIIAT score should remain as RED during this decant.

The consensus of the group was to rate as an Amber but the impact of the move on staff was acknowledged.

Item

7. Contingency/Decant

Dr Inkster re-affirmed there was an options appraisal undertaken with Jamie Redfern, Kevin Hill, Jenn Rodgers and Senior Charge Nurses from the two wards affected on the 14th September. The group decided that the preferred option was a decant to the Beatson hospital but there was no Paediatric Intensive care Unit (PICU) available so this posed a clinical risk to patients. This was the reason why the ward was moved to Ward 6A where there is a PICU on site. All options were considered and shared with the executive team.

Jamie Redfern informed the group that Dr Golding raised an issue in relation to Tuesday theatre list and whether we should extend the session to a double session as there is an operational challenge for getting patients back and forward to theatre from the QEUH site.

8. Communications

Patients/Parents

Parents have raised concerns they have lost a lot of facilities with regards to playrooms. The group are aware that parents will soon be asking how long they are going to be in the ward for

Staff

Staff will be updated on a regular basis regarding the situation. It was agreed to prepare an update for parents and staff at the next IMT following the water technical group meeting

Public

Nothing with regards of the press

Government

Significant number of parliament question which a number of questions going to the board. They are questioning the relationship between the current incident and the Serratia incident in 2015 within Maternity building to the current situation in Ward 2A, RHC but these were in two different buildings. Extensive water testing was undertaken in 2015 and no Serratia found

Tom Walsh informed the group that all parliamentary questions asked are put onto the parliamentary website which is open to the public.

Item

9. AOCB

Annette Rankin will have the HPS report with regards to the water incident as a whole as soon as possible with her report on Ward 2A and ward 2B being available after that.

Dr Inkster brought up the governance around this incident which consists of a subgroup water technical group and now a epidemiology subgroup. Both IMT and water technical group reports to the executive group via Kevin Hill. The reinstatement of the executive control group which are currently not meeting may be reformed depending on what is found in the drain survey and water technical group.

The group agreed that the ward will be open fully operationally meaning any new referrals do not need to be referred to Edinburgh Children's hospital. If Edinburgh has taken a patient then that patient will stay with them for that block of treatment.

10. Action List

1. **Dr Inkster to combine the Public Health and Microbiology epidemiology reports.**
2. **Jamie Redfern will send Dr Kennedy data regarding Ward 2A patients from 2015.**
3. **Annette Rankin to produce a report outlining the whole water incident.**
4. **Annette Rankin to produce a report on Ward 2A and 2B**
5. **Karen Connolly will see if there are any portable Hepafilter units to be used in Ward 6A for step down patients coming from Ward 4B.**
6. **Alan Gallacher is currently making a list of all rooms that have undergone drain cleaning and had point of use filters installed.**
7. **Estates currently working on database identifying patterns in the type of sinks and their position within RHC.**
8. **Ian Storrar is currently awaiting a response from the manufacturer with regards to the lifespan of gaskets.**
9. **Water technical group to provide a report for the next IMT with regards to the action plan**

11. Date and time of next meeting

Next IMT meeting is on Thursday 4th October at 1300 in Seminar Room GWS-027, Level 3, RHC

Incident Management Team
Ward 2A, RHC
5th October 2018 at 11:00
Hospital at Night Room, Level 2

Present: Dr Teresa Inkster, Tom Walsh, Susie Dodd, Emma Somerville, Mary Ann Kane, Karen Connolly, Colin Purdon, Jenn Rodgers, Annette Rankin, Dr Iain Kennedy, Angela Howat

Apologies: Sandra Devine, Ian Storrar, Andy Wilson, Alan Gallacher, Stephen Bowhay

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Friday 28th September were discussed with the following amendments :-

Dr Iain Kennedy will be added to the attendees list

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from last meeting

1. Dr Inkster and Dr Iain Kennedy are working on a combined epidemiology report.
2. Jamie Redfern will send Dr Iain Kennedy data regarding Ward 2A from 2015.
3. Annette Rankin report outlining the water incident will be available by the 31st October.
4. Report regarding Ward 2A and 2B by Annette Rankin has no date confirmed yet. Dr Inkster asked if there was any outstanding info required from GGC and it was confirmed that there is not
5. 4 portable hepafilter units have been delivered to Ward 6A for patients stepping down from ward 4B BMT.
6. Karen Connolly will send a list of the 30 rooms that can be used for any over flow of patients from Ward 6A to Calum Macleod so he can disseminate to the group.
7. A database identifying patterns in type of sinks and their position will be presented to the water technical group today.
8. Ian Storrar is currently awaiting a response from Ideal Standard with regards to the lifespan of gaskets.

Item

3. Patient Update

No new cases have been reported with no patients giving any cause for concern.

No concerns regarding the environment of Ward 6A and the staff/patients have settled in.

4. Control Measures

Susie showed the group images showing the content of drains on ward 2C which were reported last week as being blocked. Numerous items including breast pump components/syringes/small toys have been put down the sink resulting in blockages. Colin Purdon stated that it is not unusual to find items such as these when responding to blocked drains..

Tim Wafer has taken apart 4 drains from CHWB within ward 2A/2B and is currently carrying out tests. Initial first report back from the drain pipe work was that there was a smell of ammonia present from one drain leading to the hypothesis that urine had been put down the drain. Other drains contained plastic material, a screw and one had evidence of lumps of adhesive. The full report will be available shortly.

Dr Inkster stated that this would need to be addressed ahead of planned remedial works otherwise the issues will recur

The group agreed that a strategy needs to be drawn up to prevent and reduce items being put down drains. The group suggested that items could be getting stuck in the drainage due to the horizontal drainage outlets and that so vertical drainage outlets should be looked at within the water technical group. The use of a grill over drains will also be considered to prevent items falling or being put down the drains.

The drain survey has not found anything to show any problems or anything that is not deviated from the original drainage plans.

Dr Inkster and Dr Kennedy will create a joint communication for all staff and raise public awareness surrounding this. It was considered that pictures of items found down drains should be used on the poster/communications to give visual awareness of this.

Dr Inkster/Susie Dodds/Emma Somerville and Angela Howat will meet up to discuss literature surrounding a waterless ITU and what can be put in place in the paediatric BMT setting . Dr Inkster stated it would not be possible to go waterless in this setting but we could look at adopting some of the measures and possibly removing trough sinks

The water technical group who are meeting later today will be looking at plans to install an individual continual dosing unit that will only service Ward 2A/2B, RHC. Decision on whether a high level chlorine dose will be carried out within Ward 2A/2B between 19th and 27th of October will be taken.

Item

4.

Control Measures Contd

Replacement of taps with an appropriate alternative is being decided.
Replacement of CHWB will and replacement of a short section of pipe work will also be undertaken

An inline filter for the wards water supply will also be investigated to see if this is a viable option.

While the ward is empty estates are carrying out validation of their BMT rooms and looking at everything regarding the general fabric of ward that needs repaired. Mary Ann Kane stated that the decant of Ward 2A/2B could be longer than the original 4 weeks planned.

A timeline of when work is being started and their expected dates of completion is being drawn up by the water technical group and will be shared with the Incident Management Team once completed.

Angela Howat raised a few concerns regarding Ward 2B with regards to call buttons never being installed within the ward. Angela will email Mary Ann Kane with a list of items that were never installed/what she would like so that they can be installed while the ward is closed.

With regards to the whole campus (RHC & QEUH) chlorine dioxide dosing will start by the start of November. Only Ward 2A /2B will have their dosing accelerated. A project manager has been employed to oversee the process.

Dr Kennedy asked what is the criteria for the removal of the point of use filters within the wards/rooms already using them? Dr Inkster has drawn up microbiological criteria which will be presented at the water technical group.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

6. Decant/Contingency Plan

Angela Howat brought up that there is not a lot of space with regards to seeing out patients and is finding it very challenging to have rooms cleaned/turnover for the next patient. Angela will speak to Karen Connolly regarding domestic cover for this.

7. Communications

Patients/Parents

It was agreed that once a timescale had been agreed at the water technical group then a communication will be sent out.

Public

There has been no queries from the press office.

Item

7. Government

A teleconference with the government was held yesterday 4th October which went really well. Emma Watson who is the Microbiology consultant and advisor for the government will be visiting the site in the near future and will possibly speak with some members of the IMT.

8. **AOCB**

Dr Inkster asked if there was a contingency plan with regards to the dosing of the water supply within the QEUH adult hospital. The exact date when the dosing will commence is currently unknown, but a timeline is being produced and will be available for the next IMT. Once the timeline has been confirmed Dr Inkster has asked for a member of the facilities team and Infection Control team should meet up with Anne Harkness to inform her of the impact this will have on the adult service. Dr Inkster stated there was a need to understand the impact on surgery, renal, BMT and MRI scanning in particular

9. **Action List**

1. **Dr Inkster to combine the Public Health and Microbiology epidemiology reports.**
2. **Jamie Redfern will send Dr Kennedy data regarding Ward 2A patients from 2015.**
3. **Water report outlining the incident will be available from Annette Rankin by 31st October.**
4. **Report regarding Ward 2A/2B by Annette Rankin is ongoing and will not be available until after the Water report.**
5. **Karen Connelly will send Calum MacLeod a list of the 30 rooms that can be used for overspill of patients so it can be disseminated to the IMT.**
6. **Ian Storrar is currently awaiting a response from Ideal Standard with regards to the lifespan of gaskets.**
7. **Dr Inkster & Dr Iain Kennedy will meet up to create a communication regarding what should not be put down drains.**
8. **Dr Inkster/Susie Dodds/Emma Somerville & Angela Howat will meet up to discuss literature regarding a waterless ITU.**
9. **Water technical group to provide a timeline of when expected dates of completion with regards to drain survey/ventilation surveys are complete.**
10. **Karen Connolly & Susie Dodds are to arrange a meeting with Anne Harkness regarding a contingency plan for the water dosing being implemented in the QEUH adults hospital.**

Incident Management Team
Ward 2A, RHC
11th October 2018 at 11:00
Seminar Room GWS-027, Level 3

Present: Dr Teresa Inkster, Karen Connelly, Sandra Devine, Emma Somerville, Annette Rankin, Jenn Rodgers, Dr Iain Kennedy, Andy Wilson

Apologies: Susie Dodd, Jamie Redfern

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Thursday 5th October were discussed with no amendments requested.

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from previous meeting

1. Public Health and Microbiology epidemiology report has been finished and sent out to certain members of the IMT for comment. The report will be reformatted for the IMT before being sent out.
2. Jamie Redfern has sent Dr Kennedy data regarding Ward 2A patients from 2015.
3. Annette Rankin aims to get her report outlining the water incident to the chair of the IMT by 19th or 22nd October for factual accuracy before submitting it on the 31st October.
4. Report regarding Ward 2A/2B by Annette Rankin is ongoing and will not be available until after the water report.
5. List of all rooms that can be used for overspill of patients has been disseminated to the group.
6. Annette Rankin will contact Ian Storrar to see if he has had any response from Ideal Standard regarding the lifespan of gaskets.

7. Dr Kennedy has contacted the corporate communications team regarding communication being created about what should not be put down drains. The communications team are going to discuss how this will be disseminated to the public/workforce/patients and awaiting reply.
8. Dr Inkster/Susie Dodds/Emma Somerville & Angela Howat are meeting tomorrow to discuss literature regarding a waterless ITU and will feedback at the next IMT.
9. Karen Connelly & Lynn Pritchard & Dr Inkster are meeting with Anne Harkness on 16th October regarding a contingency plan for the water dosing being implemented in the QEUH adults hospital.

3. Patient Update

No new cases have been reported with no patients giving any cause for concern.



No Infection Control issues reported from the ward.

4. Control Measures

Karen Connelly reported that the drain survey has been completed and currently awaiting a report which will be disseminated to the IMT group once available.

The Water Technical group carried out an options appraisal of 3 taps. It was agreed a Markwik tap will be used in Ward 2A/2B. These taps do not have a flow straightener and has a copper lined nozzle.

The water technical group also looked at replacing sinks, section's of pipe work, toilet cisterns and toilet lids. Estates are currently in contact with the suppliers regarding the procurement of these items. Most suppliers are giving a time slot of 4-6 weeks for delivery of items which means that there will be an extension of Ward 2A/2B decant into Ward 6A, QEUH. Estates will push to get items delivered as soon as possible,

The decision to carry out a high level chlorine dioxide dose instead of the shock dose to the water system was agreed for Ward 2A/2B. For the rest of the RHC/QEUH site a mid November date is being confirmed for the start of the chlorine dioxide dosing for the whole QEUH/RHC site.

Item

4. Control Measures Contd

A report on the ventilation of Ward 2A/2B ventilation is due soon and if any problems detected they will look at the feasibility of rectification during the period the ward is decanted.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

6. Decant/Contingency Plan

Emma Sommerville said that staff within the ward are happy with the environment of ward 6A. She has some concerns about staff doing extra hours and problems could occur if staff sickness occurs.

Jenn Rodgers is doing a weekly report to finance about the additional nursing/ANP and medic resources which are currently being put into this decant.

7. Communications

Patients/Parents/Staff

Once a finalised timeline has been developed then further communication to staff/patients/parents can be issued.

Dr Inkster is attending Ward 2A/2B unit meeting tomorrow on request of Prof Gibson where she will go over some aspects of the timescale of when works will be commenced/completed.

Government

Certain members of the IMT had a further teleconference with the government yesterday which went really well.

8. AOCB

Nil to report

Next meeting is being held on Friday 19th October at 1100 in the Hospital at Night Room, Level 2, RHC

Action List

1. **Epidemiology Report to be sent out to IMT once comments have been received**
2. **Water report outlining the incident will be available from Annette Rankin by 31st October/1st November. Annette Rankin aims to get the water report to the IMT by 19th or 22nd October for factual accuracy before submitting it.**
3. **Report regarding Ward 2A/2B by Annette Rankin is ongoing and will not be available until after the Water report.**
4. **Annette Rankin will contact Ian Storrar to see if he has had any response from Ideal Standard regarding the lifespan of gaskets.**
5. **Awaiting reply from corporate communications regarding communication being sent out in relation to what should not be put down drains.**
6. **Dr Inkster/Karen Connelly & Lynn Pritchard will be meeting with Anne Harkness about the upcoming implications of the water dosing and give a rough timescale on when Ward 2A/2B will be returning back to the RHC.**

Incident Management Team Ward 2A, RHC

19th October 2018 at 11:00

Present: Dr Teresa Inkster, Kathleen Thomson, Mark Dell, Stephen Bowhay, Melanie Hutton, Karen Connelly, Susie Dodd, Annette Rankin, Mary Anne Kane, Prof Brenda Gibson, Andy Wilson, Angela Howat, Emma Somerville, Sandra Devine, Dr Iain Kennedy,

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Thursday 11th October were discussed with the following amendments:

Page 1, Point 3, Update on Actions should read "Annette Rankin aims to get report outlining incident to the Chair of the IMT"

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from previous meeting

1. Awaiting comments with regards to the Epidemiology Report. This report will be sent out once it has been finalised. Members of the IMT are meeting up with HPS on November 10th to discuss the epidemiology.
2. Annette Rankin's water report outlining this incident will be sent to Dr Inkster for factual accuracy on 22nd October. Dr Inkster will have one week to suggest any amendments before it is officially submitted.
3. Annette Rankin informed the group that the report regarding Ward 2A/2B is ongoing.
4. No update from Ideal Standard after Ian Storrar has contacted them regarding the lifespan of gasket.
5. Mark Dell has discussed with his colleagues the possible options regarding a communication being sent out in relation to what should not be put down drains.
6. Facilities and Infection Control members have met with up with Senior Management regarding a contingency plan for the water dosing being implemented in the QEUH/RHC sites. Infection Control guidance will be distributed to all staff nearer the time.

Item

3. Patient Update

No new positive cultures have been reported and no patients giving any cause for concern.

[REDACTED]

[REDACTED]

4. Control Measures

The Water Technical group have outlined the scope of work for Ward 2A and 2B. Work has started with a timeline of completion being around the 14th December. During this time dosing of the water with chlorine dioxide will be implemented, taps and wash hand basins will all be changed along with replacement of plumbing elements within the ward. A more detailed timeline of when contractors will be carrying out this work will be available next week.

Dr Inkster met with Susie Dodd, Emma Somerville and Angela Howat regarding a review of all water sources and routes of transmission with an opportunity for intervention before patients move back into ward 2A/2B. Numerous actions were agreed which involve changing the use of the bathroom into a treatment room and using the existing treatment room as a prep room. Emma Somerville will contact Ian Powrie to finalise the specifications of the rooms. Karen Connelly will see if it is possible to get suction and oxygen lines into the current bathroom ear marked to be changed into a treatment room. It was noted that the bathtub currently in the room will be taken away as it is not required by the ward.

It was suggested that the trough sinks within the anterooms could be replaced by a two stage hand hygiene process and a worktop. Professor Gibson has requested that she speaks to her fellow clinicians regarding this as this will mean a change in hand hygiene practice. Dr Inkster has requested that this meeting should include Stefan Morton the Hand Hygiene Co-Coordinator as he will be able to inform clinicians about the changes.

The two sinks within the play area are to remain but the sink within the pharmacy office is to be removed.

The trough sink in treatment room 4, Ward 2B may need to be kept as lumber punctures are carried out within this room. This will be reviewed by Emma and Angela during a walk round this afternoon.

Emma, Angela and Susie are going to carry out a walk round of Ward 2A/2B with Andy Wilson to identify what areas of the ward they would like repainted and see if there are any areas in which lighting could be increased.

Item

5. **Healthcare Infection Incident Assessment Tool (HIIAT)**

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

6. **Decant/Contingency Plan**

Dr Inkster attended a clinical meeting last Friday and was informed that this decant is having a significant impact with hospital at night team and ANPs. Pushing back the return date of Ward 2A to December will cause issues.

Prof Gibson informed them that there is no area within Ward 6A for clinicians to carry out teleconference calls. There is also no area for clinicians to speak privately to parents of patients.

7. **Communications**

Patients/Parents/Staff

An update for staff and parents will be made once a detailed timescale of work that is being carried out has been finalised.

Media

Mark Dell informed the group that STV have been in contact but GGC responded that work is ongoing and cannot give advice with regards to when Ward 2A/2B will be moving back.

Next meeting is being held on Friday 26th October at 1430 in the Hospital at Night Room, Level 2, RHC

Action List

1. Epidemiology report to be sent out to IMT once comments have been received
2. Annette Rankin is to send Dr Inkster her water report on Monday 22nd October for factual accuracy. Dr Inkster is to return this report with any comments to Annette within 1 week before it is officially submitted.
3. Report regarding Ward 2A/2B by Annette Rankin is ongoing.
4. Awaiting feedback from Ideal Standard regarding the lifespan of gaskets.
5. Communication to staff and public in relation to what should not be put down drains is to be sent out.
6. A detailed timeline of when contractors are carrying out certain aspects of work in Ward 2A/2B is to be produced by the water technical group.
7. Emma Somerville is to contact Ian Powrie regarding the final specifications requested to change the use of two rooms within Ward 2A.
8. Karen Connelly is to see if suction and oxygen lines can be put into the bathroom within ward 2A.
9. Walk round of Ward 2A/2B to identify areas that require painting and possible lighting improvement is to be carried out.
10. Professor Gibson is to organise a meeting with her fellow clinicians and hand hygiene coordinator Stefan Morton regarding the proposed changes in hand hygiene facilities in Ward 2A.

Incident Management Team Ward 2A, RHC

26th October 2018 at 14:30

Present: Dr Teresa Inkster, Kathleen Thomson, Melanie Hutton, Prof Brenda Gibson, Andy Wilson, Karen Connelly, Mary Ann Kane, Annette Rankin, Emma Somerville, Angela Johnson, Dr Iain Kennedy, Lorraine Dick

In Attendance: Calum MacLeod (minutes)

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Friday 19th October were discussed with no amendments requested.

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from previous meeting

1. Epidemiology report will be issued after November 10th once comments have been received.
2. Comments regarding Annette Rankin water report will be sent back by Monday 22nd October for factual accuracy before it being submitted a week later.
3. A date for Annette Rankin report regarding Ward 2A/2B will be agreed once the water report has been submitted.
4. Ian Storrar has not received an update from Ideal Standard regarding the lifespan of gaskets used.
5. Lorraine Dick will organise a separate meeting to discuss a communication for staff and public in relation to what should not be put down drains.
6. A detailed timeline of when contractors are carrying out certain aspects of work in Ward 2A/2B will be available shortly. The group are aiming for a moving back 14th December.
7. An agreed proposal plan to change the specifications of the prep room and treatment room in Ward 2A after a recommendation of the IPCT has been agreed.
8. Karen Connelly confirmed that suction and oxygen lines can be put into the bathroom within Ward 2A.

9. Emma Somerville met with Frank Green and confirmed what she wanted painted within Ward 2A/2B. Ian Powrie is looking at possible lighting improvements to the ward that can be carried out within the timeframe. Kathleen Thomson and Melanie Hutton are to look into a portable table that staff can use as a work station.
10. A meeting is being held on Tuesday 30th October to discuss the proposed changes to hand hygiene facilities within Ward 2A. This meeting will focus on the recommendation from water expert Suzanne Lee regarding the reduction of water outlets/sinks within Ward 2A especially the hand hygiene facility within ante rooms. Dr Inkster has recommended removal of trough sinks in the BMT anterooms. Prof Gibson expressed concern regarding this. The group has asked Annette Rankin to do an SBAR on trough sinks.

3. Patient Update

No new positive cultures have been reported and no patients giving any cause for concern.

4. Control Measures

The group has decided on the scope of works that require to be carried out while Ward 2A/2B is closed. The only issue that needs confirmed is the decision on the CHWB within the anterooms which will be decided on Tuesdays meeting.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

6. Decant/Contingency Plan

Guidance has been created for paediatric and adult wards for when water dosing commences which will lead to areas not having access to hot water for 24 hours and having no water supply at all for 4 hours. Currently awaiting acknowledgement from Anne Harkness to say this is fine for it to be disseminated to staff across RHC and QEUH staff.

Item

7. Communications

Patients/Parents/Staff

The group agreed that they were not in a position for communications to be sent out until everything has been finalised. Once these timelines have been finalised next week then a communication will be sent out. The communication will include a date for when they expect the wards to be moved back. A meeting regarding the removal of trough sinks is being held next week and once this has been agreed then a communication will be sent out.

Media/Government

There has been nothing received from the media and no queries from the government.

**Next meeting is being held on Friday 2nd November at 1430 in
Conference Room GWS-008, Level 3, RHC**

Action List

1. Epidemiology report will be issued after November 10th once comments have been received.
2. Comments regarding Annette Rankin water report will be sent back by Monday 22nd October for factual accuracy before it being submitted a week later.
3. Annette Rankin report regarding Ward 2A/2B will be agreed once the water report has been submitted.
4. Ian Storrar has not received an update from Ideal Standard regarding the lifespan of gaskets used.
5. Lorraine Dick will organise a separate meeting to discuss a communication for staff and public in relation to what should not be put down drains.
6. A detailed timeline of when contractors are carrying out certain aspects of work in Ward 2A/2B will be available shortly. The group are aiming for the 14th December.
7. Kathleen Thomson and Melanie Hutton are to look into portable table that staff can use as a work station.
8. Annette Rankin is to create an SBAR regarding the size of trough sinks.

Theatre 6, RHC – Increased incidence of Pseudomonas isolates

Incident Management Team Meeting

2nd November 2018 @ 8am, Zone 3, office block, QEUH

In Attendance: Dr Teresa Inkster, Lead IPCD and Chair, Susie Dodd, Ann Kerr, Pat Coyne, David MacDonald, Dr Timothy Bradnock

Apologies: Alan Stewart & Jeanette Whiteside

Introductions were made around the table.

Dr Inkster reminded everyone of the confidentiality associated with the incident.

The group agreed that the membership was appropriate.

No conflict of interest was declared.

Background

Dr Inkster summarised a Problem Assessment Group (PAG) held on 25th October 2018 convened to discuss 3 isolates of Pseudomonas aeruginosa from [REDACTED]

[REDACTED].
Since the PAG, a further 2 cases have been reported to the IPCT – [REDACTED]. This brings the total for October 2018 to 5. In addition, 2 of the 5 cases are a type match. Typing results for the remaining 3 cases are outstanding.

TI explained that the literature describes a background rate of P.aeruginosa isolates from peritoneal fluid of around 15%. A review of the number of cases within RHC was undertaken by the IPC data team AK described the findings. Since January 2016, the number of pseudomonas isolates from peritoneal fluid sits on average at 0-1 per month. A spike of 3 cases was noted in Feb 2017 and a second spike this month of 5 cases. In total there were 21 isolates identified. [REDACTED]

[REDACTED]
The group agreed that the data therefore demonstrates a data exceedance. Given the background rate established for RHC, it was agreed to discount the July and August cases discussed as part of the PAG on 25th October.

Patient Update

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

TB sought clarity on the typing results and the likelihood that 2 patients may carry the same type of P.aeruginosa. TI explained that this is not impossible but it is highly unlikely. There are common circulating strains found in hospitals however the typing lab have not identified this strain as one commonly found in RHC. [REDACTED]

Investigations

- Equipment/product sampling – TI explained that a number of pieces of equipment including the scope has been sampled and no growth has been detected. A number of cleansing products have also been sampled and again no growth detected. SD queried the process should staff find a piece of equipment which is single use or from cowlairs which is not visibly in a satisfactory condition for use. TB stated that staff are very vigilant in such cases and would immediately remove the piece of equipment should this be the case. Any concerns with equipment coming from cowlairs is noted in a log kept by theatres. SD agreed to contact Alan Stewart to query if there had been any concerns reported lately.
- Environmental sampling – TI explained that the water has been sampled as have the drains. Air sampling has also been carried out. Results of these are awaited. TI noted that P.aeruginosa has not been isolated from the water during the water incident and it was noted that should the water or drains be positive for P.aeruginosa then we would expect to see a wider distribution of the isolate amongst patients. It was noted that yesterday, theatre staff had reported a smell of sewage within theatre 8 in particular when the lamina flow was switched on. SD advised that on completion of the surgical case which was ongoing at the time, estates staff had advised they would be urgently investigating the smell. An outcome is awaited. TB reported that staff have reported smelling cigarette smoke within the theatre suite previously. It was noted that theatre has no windows through which this smell could carry from outside. DMc and PC agreed to follow up the inspection of the sewage smell query. TI also queried the date and report resulting from the last theatre validation. DMc and PC also agreed to obtain this to share with the IMT.
- [REDACTED]

Control Measures to Date

TI noted that to date there are no control measures in place and we continue to await the results of typing and environmental sampling which will help inform us further. The question was put to the group as to whether it was safe to continue using theatre 6 for surgical procedures. The group agreed that it was in the absence of further test results and any positive equipment and environmental isolates relating to theatre 6 specifically.

Further Investigations and Control Measures

Ti noted that should the remaining patients be reported as the same type of P.aeruginosa and in the absence of any source being identified amongst equipment and the environment, then staff screening would have to be considered. TI explained that P.aeruginosa can be carried in the ear (particularly if the person is a swimmer – swimmers ear), nose if chronic sinusitis or if they have a chronic skin condition. TB agreed that should any staff report chronic skin conditions or ear complaints then he

would encourage them to contact TI so that screening could be considered. TI explained that if all environmental results were negative then the criteria for staff screening as per our policy would be met and that the group would need to reconvene to discuss this

HIIAT

Severity of illness – Minor

Impact on services –Minor

Risk of transmission - moderate; transmission route not identified

Public anxiety – Minor

Overall HIIAT Green.

TI explained the process involved with a Green scoring.

Communications

Parents – Not required at present. Should the typing of the remaining patients be the same they may need to be contacted as per Duty of Candour.

Staff – The relevant staff have been kept up to date.

Press – No press statement needs to be prepared.

AOCB

None

Action List with associated timescale and allocated responsibility

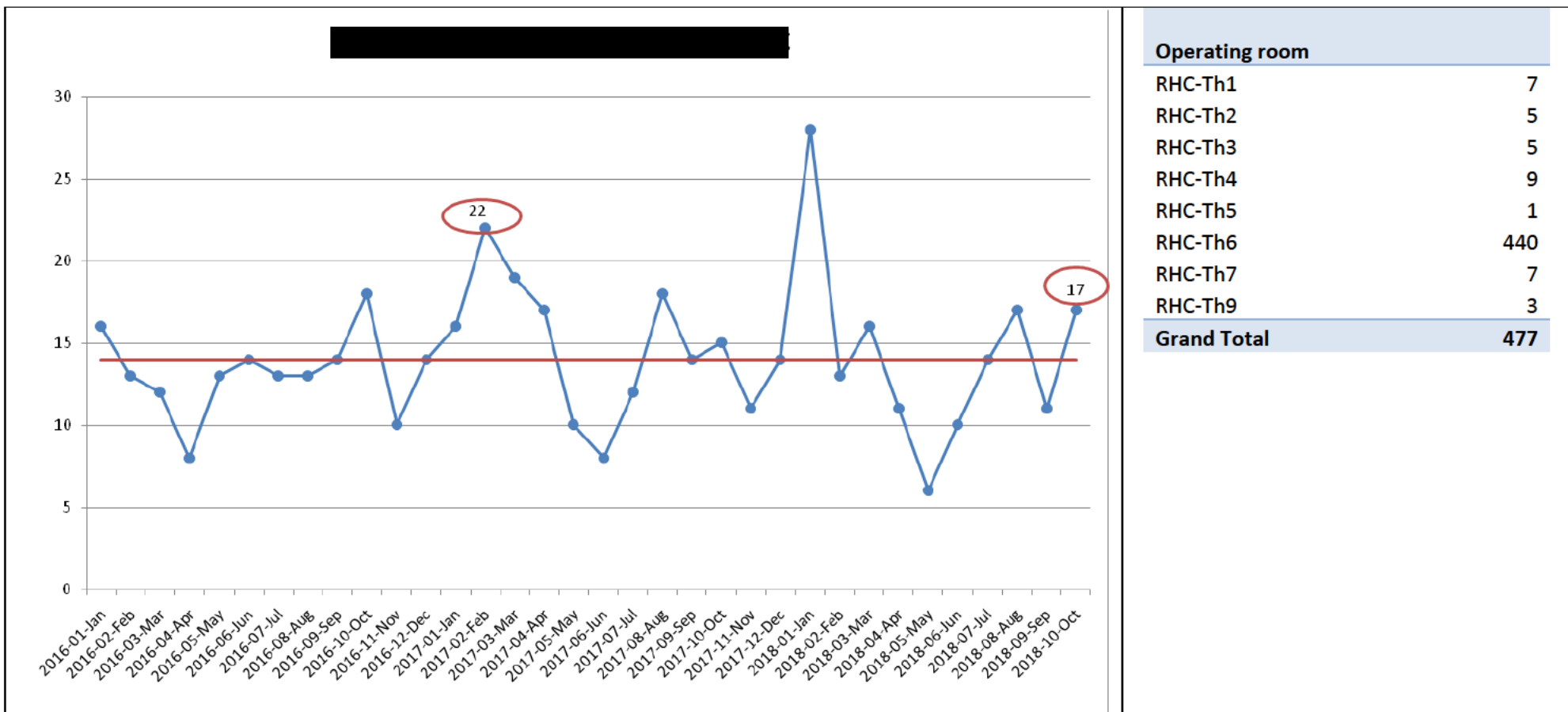
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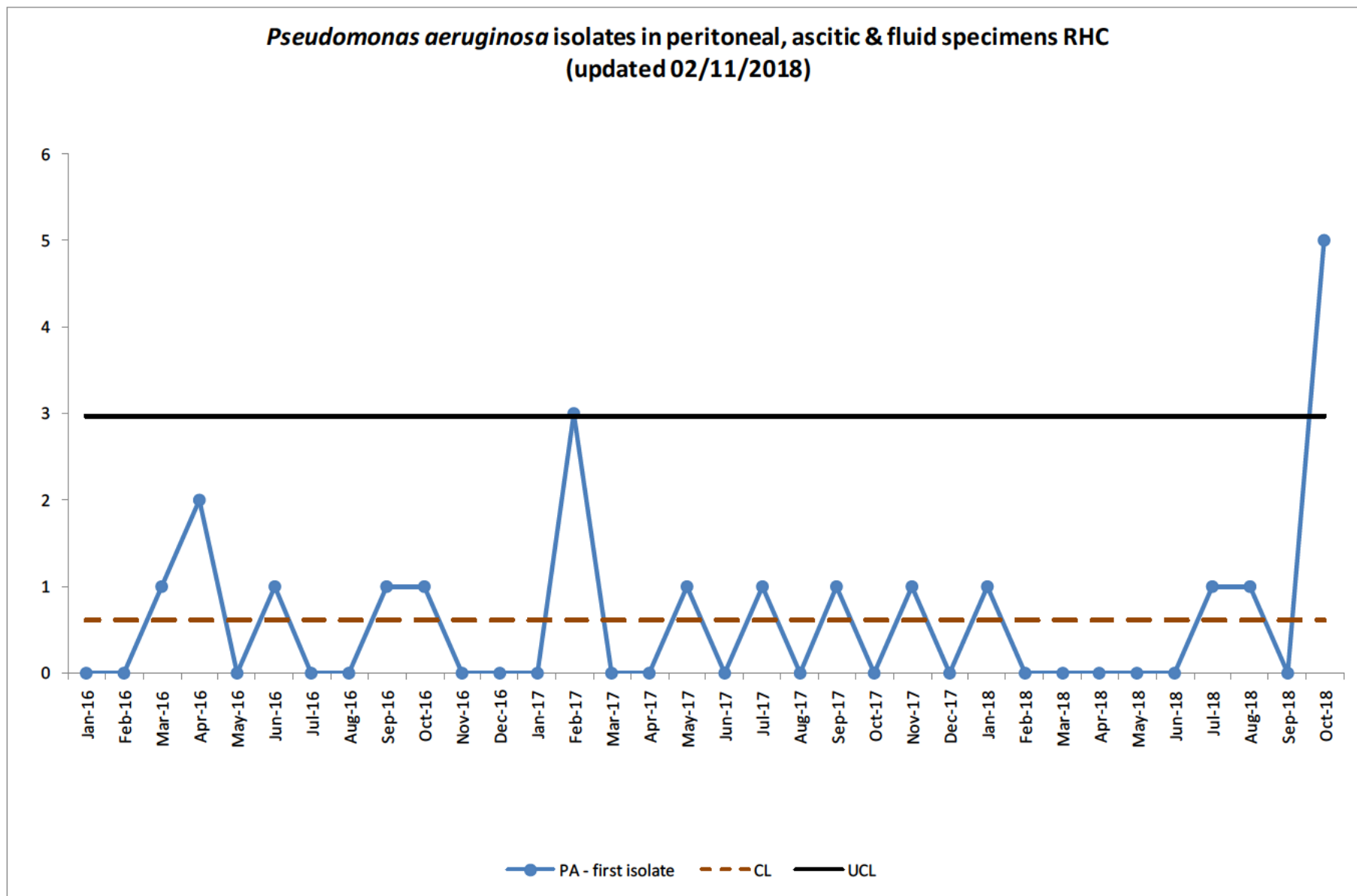
Date and Time of Next Meeting

To be agreed following outstanding micro/typing results

Action List

Date Action Generated	Action	Responsible Person	Timescale for Completion
02/11/18	Speak to Alan Stewart to determine if any concerns raised in relation to sterile products provided by Cowlairs	Susie Dodd	02/11/18
02/11/18	Obtain validation report for theatre 6 and share with IMT	David MacDonald and Pat Coyne	07/11/18
02/11/18	Follow up outcome of investigations into sewage smell in theatres on 1/11/18.	David MacDonald and Pat Coyne	02/11/18
02/11/18	Obtain outstanding environmental results.	Teresa Inkster	07/11/18





Number of peritoneal fluid, ascitic fluid and fluid (generic) specimens (at time of surgery) which have isolated *P. aeruginosa*.

Incident Management Team Ward 2A, RHC

2nd November 2018 at 14:30

Present: Dr Teresa Inkster, Tom Steele, Professor Brenda Gibson, Annette Rankin, Susie Dodd, Karen Connelly, Emma Somerville, Angela Howat, Mary Ann Kane, Andy Wilson, Kathleen Thompson, Jamie Redfern

In Attendance: Calum MacLeod (minutes)

Apologies: Melanie Hutton, Jenn Rodgers

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Friday 26th October were discussed with the following amendment:

Page 4, Action List, Number 8 should read: Annette Rankin is to create an SBAR regarding the use of trough sinks.

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from previous meeting

1. Epidemiology report will be issued after November 10th once comments have been received.
2. Annette Rankin has submitted her report regarding the water incident.
3. Annette Rankin's report regarding Ward 2A/2B is being worked on and no date for submission has been confirmed.
4. Tom Steele has spoken to Ian Storrar who is speaking to Ideal Standard next week regarding the lifespan of gaskets.
5. Dr Inkster will contact Lorraine Dick regarding a general communication to staff/public in relation to what should not be put down sinks.
6. Tom Steele will forward onto Dr Inkster a detailed timeline of when contractors are carrying out certain aspects of work in Ward 2A/2B.
7. Kathleen Thomson has identified portable work stations and will speak to medical team to ascertain an agreement to which they prefer.
8. Annette Rankin has completed an SBAR regarding the use of trough sinks.

Item

3. Patient Update

No new positive cultures have been reported and no patients giving any cause for concern.

4. Control Measures

Tom Steele informed the group that great progress has been made with regards to plumbing/WC installation and fitting of new pipe work. A quotation has been received with regards to the proposed new treatment room and prep room. The painting/decoration should be finished within the ward by 3rd of the December. The lighting is currently being assessed. Nurse call buzzer improvement to Ward 2B is going ahead.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

6. Decant/Contingency Plan

Tom Steele and Dr Inkster had met previously during the week to discuss the issue of ventilation within Ward 2A (excluding the BMT rooms). The ventilation within these rooms should be positive so that when someone enters the room no air from outside will be admitted due to the positive pressure pushing it out. However the original specification and design of the ward were for the rooms to be of neutral/slightly negative pressure.

Estates plan to replace the filters and rebalance the system to go into neutral pressure but going forward it is unknown what the impact on the decant return date could be if the rooms cannot be transferred into positive pressure rooms. Dr Inkster reiterated that there is no evidence that any outbreaks have been linked to the neutral/negative pressure rooms.

7. Communications

It was agreed that any communication sent out will have to wait until the ventilation problem has been solved and a timescale has been complete.

Item**8. AOCB**

Professor Gibson attended a meeting regarding the proposed removal of trough sinks within anterooms. The SBAR from HPS was used including reference regarding the proposed removal of the CHWB. The Infection Prevention & Control Team are going to create a paper to show how this new hand hygiene regime will work and show the advantages of removing the trough sinks.

Professor Gibson informed the group that her oncology colleagues don't understand why removing the trough sinks from the transplant rooms will cut infection rates as all the water related infections occurred out with the transplant rooms. Dr Inkster informed her that all the sinks are connected by the same plumbing system. The removal of CHWB is not just happening to Ward 2A and 2B but will be rolled out to the entire RHC site. At the moment only Ward 2A and 2B are being focussed on and it is unknown how many sinks in total within the whole RHC site will be taken out.

Professor Gibson raised her concerns that CHWB within the transplant area are in close proximity to patients beds increasing the risk of splash back onto the patient when used. Professor Gibson suggested that the CHWB could be taken out of the patient room and leave the trough sinks within the anteroom and remove the anteroom as a whole. Dr Inkster said that the anteroom is there to maintain pressure of the room so there is no feasibility to carry this out.

Professor Gibson raised her concerns regarding that about 50% of transplant patients had viruses and would like to know what viruses the hand gel is going to kill as gelling your hands will not get rid of viruses. Dr Inkster informed Professor Gibson that CHWB will still be available in patient rooms. Dr Inkster informed the group that the paediatric BMT patients who moved into the BMT Ward 4B, QEUH have already implemented this as Ward 4B has no anterooms. Professor Gibson is not refusing but still discussing the request to remove the trough sinks from the anterooms. Dr Inkster said that if the issue persists once Ward 2A/2B move back into the ward then the trough sinks can be put back into the anterooms.

Angela Howat has requested that with the hopper being removed from the sluice in Ward 2B, can one sink with a draining section on each side of it be installed. Andy Wilson will contact David Carmichael regarding these changes.

**Next meeting is being held on Friday 9th November at 1430 in
Conference Room GWS-009, Level 3**

Action List

1. Epidemiology report will be issued after November 10th once comments have been received.
2. Annette Rankin's report regarding Ward 2A/2B is being worked on and no date for submission has been confirmed.
3. Ian Storrar is speaking to Ideal Standard next week regarding the lifespan of gaskets.
4. Dr Inkster will contact Lorraine Dick regarding a general communication to staff/public in relation to what should not be put down sinks.
5. Tom Steele will forward onto Dr Inkster a detailed timeline of when contractors are carrying out certain aspects of work in Ward 2A/2B.
6. Kathleen Thomson has identified portable work stations and will speak to medical team to ascertain an agreement to which they prefer.
7. Andy Wilson will contact David Carmichael regarding the changes to a single sink with two draining boards to replace the hopper within the sluice.
8. The Infection Prevention & Control Team are going to create a paper to show how this new hand hygiene regime will work and show the advantages of removing the trough sinks.

Incident Management Team Ward 2A, RHC

13th November 2018 at 13:00

Present: Dr Teresa Inkster, Annette Rankin, Andy Wilson, Jenn Rodgers, Karen Connelly, Morag James, Susan McFarlane, Stephen Bowhay, Susie Dodd, Prof Brenda Gibson, Kathleen Thomson, Sandra Devine, Dr Iain Kennedy, Jamie Redfern

In Attendance: Calum MacLeod (minutes)

Apologies: Angela Howat, Emma Somerville, Ian Storrar, Melanie Hutton

Item

1. Introductions

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. Minute of Last Meeting

The minutes of the last meeting held on Friday 2nd November were discussed with no amendments requested.

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from previous meeting

1. Epidemiology report will be issued after November 20th.
2. Annette Rankin's report regarding Ward 2A/2B will be delayed until the report into the ventilation has been completed. No date for submission has been confirmed.
3. Annette Rankin will forward on the reply Ian Storrar received from Ideal Standard in relation to the lifespan of gaskets to Dr Inkster. They have not committed to anything and say the information is not available.
4. Lorraine Dick is currently working on a general communication to staff/public in relation to what should not be put down sinks.
5. A timeline outlining when contractors will be completing certain aspects of work will be delayed as estates will need to wait on what work will be required from the ventilation report.
6. Kathleen Thomson is working with staff on identifying how staff currently use work stations and will meet up with medical staff to discuss portable work stations she has identified for Ward 2A/2B.
7. Andy Wilson has contacted David Carmichael regarding the changes to a single sink with two draining boards to replace the hopper within the sluice.
8. Susie Dodd has completed a paper to show how staff will carry out hand hygiene following removal of the trough sinks.

Item**3. Patient Update**

No environmental bacteraemia positive cultures have been reported and no patients giving any cause for concern.

**4. Control Measures**

Andy Wilson gave an update on the works currently being undertaken within Ward 2A/2B. The installation of sinks/taps and pipe work modifications is well underway. The repainting of agreed areas within the ward has been complete as well as the flooring repairs.

The change in use of the bathroom into a treatment room and the old treatment room being changed into a prep room is underway.

An external review of the ventilation system has brought up issues with air ducts pulling air from dirty areas like bathrooms with the possibility of very small percentages of this air being drawn into supply ductwork. In addition the general ward room pressures are designed to be nominally neutral in relation to the corridor with a risk that these could become slightly negative over time as filters become dirty creating greater resistance to air flow. Ian Powrie is currently drawing up an options appraisal with a timescale and costing to see if the ventilation can be rectified. Dr Inkster informed the group that due to this ventilation problem the moving back date for Ward 2A/2B will not be December 14th as previously agreed. She has requested that the decant will continue until mid February at earliest but will wait until Ian Powrie report to confirm dates.

Dr Inkster informed the group that until the work within Ward 2A/2B has finished then repeat air pressure readings cannot be taken. If the rooms still show a negative reading then more work regarding ventilation will be required to make the patients rooms positive pressure with hepa-filters added.

Dr Inkster had emailed Lorraine Dick to discuss recent photographs of theatre sink drains which showed numerous plastic nail picks from scrubbing brushes gathered in the traps of the sinks. It had been previous action of the IMT to set up a Comms strategy re staff putting things down drains. Lorraine is meeting with Tom Steele tomorrow to discuss. Dr Inkster has emailed the lead surgeon and lead nurse for theatres to ask that all staff be made aware of findings Kathleen Thomson is going to source an alternative to the existing scrubbing brushes used so there is no plastic that can be put down the sinks.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

Item

6. Decant/Contingency Plan

Panels at the back of beds within Ward 6A were not sealed and had become very dusty inside especially when plugs were being inserted into them. Facilities were informed and they have all since been resealed and cleaned. Facilities are going to check other high risk areas within the hospital to see if the sealant has been degraded over a period of time.

Prof Gibson said that with the extension of decant of ward 2A/2B into ward 6A until February will have an impact on staff who are being pulled from other areas to help.

The cladding work outside the RHC hospital is due to be completed with the next week. Dr Inkster is going to look into lifting the need for patients taking antifungal prophylaxis and will also review if high risk patients can use the main entrance when it re-opens.

7. Communications

The group agreed that they were not in position to inform patients/parents about when they should be expected to move back into Ward 2A/2B as awaiting report from Ian Powrie regarding the ventilation.

Professor Gibson can give notification to staff as she will be creating rotas until February and she will state that the ward is getting re-spec for a Haematology/Oncology ward.

The Government have requested an SBAR regarding the ventilation as to what the issue is and what we plan to do to rectify the issues. Ian Powrie and Dr Inkster will work on this

Jamie Redfern has agreed to speak to Anne Harkness to inform her that they require ward 6A for longer than planned due to ventilation.

8. AOCB

Susie Dodd informed the group that a recent IPC audit of Ward 6A scored 95% (Gold). The IPCT are visiting the ward at least twice weekly and have not seen any Infection Control concerns.

Action List

1. Epidemiology report will be issued after November 20th.
2. Annette Rankin's report regarding Ward 2A/2B. No date for submission as awaiting ventilation report.
3. Lorraine Dick is currently creating a general communication to staff/public in relation to what should not be put down sinks.
4. A timeline outlining when contractors will be completing certain aspects of work will be delayed as estates will need to wait on what work will be required from the ventilation report.
5. Kathleen Thomson is working with staff on identifying how staff currently use work stations and will meet up with medical staff to discuss portable work stations she has identified for Ward 2A/2B.
6. Kathleen Thomson is going to source an alternative to the existing scrubbing brushes used.
7. Dr Inkster & Ian Powrie will work on SBAR in relation to the ventilation.
8. Jamie Redfern will speak to Anne Harkness regarding the date for ward 2A/2B moving back into the RHC won't be until February.

Theatre 6, RHC – Increased incidence of Pseudomonas isolates

Incident Management Team Meeting

14th November 2018 @ 8am, meeting room, theatre reception, RHC

In attendance;

Jeanette Whiteside, David MacDonald, Pat Coyne, Teresa Inkster, Ann Kerr, James Andrews (joined later)

Apologies;

Elaine Johnstone, Alan Stewart

Introductions were made around the table.

Dr Inkster reminded everyone of the confidentiality associated with the incident.

The group agreed that the membership was appropriate.

No conflict of interest was declared.

Previous minutes

No changes required to previous minutes.

Patient update

No new cases since the last meeting. Some further typing results available; 2 cases are an exact match and 2 are unique. 1 remains outstanding.

Investigations

- The group were shown a list of equipment and environmental sampling carried out. All samples detected no growth with the exception of the drains. TI explained that such growth isn't unusual for drains. In the anaesthetic room trough sink in theatre 6, Ps.aeruginosa was isolated from this drain. The isolate will be sent for typing.
- Having carried out a clean of drains on request from the IPCT, estates found significant debris within drain traps causing almost complete occlusion of some. Debris included large amounts of nail picks used by staff during surgical scrubbing, needles, bungs, sheaths and paperclips. Jeanette has emailed surgeons re. this and highlighted the need to ensure these are binned and not allowed to go down the drain.
- SD read out an email to the group received from Alan Stewart relating to equipment from cowlairs which stated *'We have reviewed our non conformance system and see no reports for damp or wet packs for this set, the only thing showing up is 3 requests for Decontamination certificates to send the scopes for repair mainly lens damage'*.
- SD read out an email from Daryl James Connor, estates manager, relating to the smell of sewage within theatres and the recent validation within theatres which stated *'From a ventilation perspective the plant is well within acceptable parameters for kids theatre 6 and was fully serviced and verified on Tuesday the 2nd of October 2018 passing in every respect*

for SHTM03 compliance with the only advisory being “slightly high noise levels on the UCV fans”, which is a historical problem and does not compromise the pressure integrity cascades of the suite or the required amount of air changes required.

The only plausible explanation for the sewage smell on UCV start up would be :

The ambient intake air around the hospital last week was particularly more potent than usual due to the close proximity of the sewage treatment plant.

When the UCV system is switched on the air pressure in the suite increases, potentially leading to a perceived increased sewage smell on start up.

Ventilation filtration is only specified to filter dust particles and contaminants and not smell, such a modification would require an element of redesign to accommodate bespoke charcoal filter installation which would compromise the ventilations capacity to meet the required air change rate. Such changes would lead to downtime of the theatres and re-commissioning and verification of the ventilation plant.

Estates investigation concludes that the ventilation serving theatre 6 is well within calibration and legal limits, no sewage bursts, floods or spills are evident within the space and that the smell on UCV start up is a direct result of the AHU plant environment and can be variable depending on the daily external air environmental conditions.

JA feels that the smell in theatres isn't just when UCV is switched on. Regardless of when the UCV is in use, the smells from outside can be potent and include sewage, cut grass and cigarette smoke. TI agreed to raise this concern at a ventilation meeting she will be attending at a later date.

Control measures

No control measures have been implemented to date as the source is not yet evident.

Future control measures

Staff screening ; no theatre staff have come forward reporting any skin conditions. TI advised that staff screening would not go ahead at present however should there be any further cases presenting a further data exceedance then staff screening would need to be considered.

Further discussion around drain content. JW and JA felt the best way to prevent disposal of nail picks down drains is to remove them all together. It was noted that some sinks are slow to drain and the debris is likely to be the cause of this. AK agreed to look at the evidence for nail picks and nail brushes during surgical scrubbing. JW advised that those staff who use ail picks and brushes are following the Association for Peri Operative Practice (AFPP) guidelines. SD agreed to look at the local board policy compared with HPS recommendations.

AK noted that surveillance of Ps.aeruginosa in peritoneal fluid will continue and any data exceedance will be reported.

HIIAT

Severity of illness – Minor

Impact on services –Minor

Risk of transmission - moderate; transmission route not identified

Public anxiety – Minor

Overall HIIAT Green.

Communications

Parents – Not required at present.

Staff – JW has shared the photographs of the theatre drains and debris with the staff within theatre.

JW will also feedback environmental results to surgeons and nursing staff.

Press – No press statement needs to be prepared.

AOCB

None

Action List with associated timescale and allocated responsibility

See next page

Date and Time of Next Meeting

No further meeting unless new cases or outstanding typing result matches any of the other cases.

Action List

Date Action Generated	Action	Responsible Person	Timescale for Completion
02/11/18	Speak to Alan Stewart to determine if any concerns raised in relation to sterile products provided by Cowlairs	Susie Dodd	02/11/18 Complete
02/11/18	Obtain validation report for theatre 6 and share with IMT	David MacDonald and Pat Coyne	07/11/18 Complete
02/11/18	Follow up outcome of investigations into sewage smell in theatres on 1/11/18.	David MacDonald and Pat Coyne	02/11/18 Ongoing
02/11/18	Obtain outstanding environmental results.	Teresa Inkster	07/11/18 Complete
14/11/18	Discuss the ingress of smells into theatres at ventilation meeting.	Teresa Inkster	28/11/18
14/11/18	Review of the evidence for nail picks and nail brushes during surgical scrubbing	Ann Kerr	21/11/18
14/11/18	Review of the local board policy compared with HPS recommendations relating to surgical scrubbing.	Susie Dodd	21/11/18
14/11/18	Share the photographs of the theatre drains and debris with the staff within theatre and feedback environmental results to surgeons and nursing staff.	Jeanette Whiteside	21/11/18

Incident Management Team Ward 2A, RHC

22nd November 2018 at 11:30

Present: Dr Teresa Inkster, Andy Wilson, David MacDonald, Sandra Devine, Stephen Bowhay, Jenn Rodgers, Prof Brenda Gibson, Angela Johnson, Jamie Redfern, Angela Howat

In Attendance: Calum MacLeod (minutes)

Apologies: Tom Steele, Mary Ann Kane, Karen Connelly,

Item

1. **Introductions**

Dr Teresa Inkster welcomed everyone to the meeting and introductions were made round the table.

2. **Minute of Last Meeting**

The minutes of the last meeting held on Tuesday 13th November were discussed with the following amendments requested:-

Andy Wilson will send clarification regarding ventilation wording to Calum Macleod.

If anyone has any comments/amendments regarding any of the recent IMT minutes can you please email [REDACTED]

Update on Actions from previous meeting

1. Epidemiology report is currently being prepared by HPS and Microbiology.
2. There is no submission date for Annette Rankin's report regarding Ward 2A/2B as it is dependent on the ventilation report.
3. Lorraine Dick is currently creating a general communication to staff/public in relation to what should not be put down sinks.
4. A timeline outlining when contractors will be completing certain aspects of work will be delayed as estates will need to wait on what work will be required from the ventilation report.
5. Kathleen Thomson is working with staff on identifying how staff currently use work stations and will meet up with medical staff to discuss portable work stations she has identified for Ward 2A/2B.
6. Action regarding Kathleen Thomson sourcing an alternative scrubbing brush has been taken off the action plan as this is not for this IMT. It will be actioned by the surgical IMT dealing with the relevant incident
7. An SBAR in relation to ventilation has been sent to the Chief Executive and awaiting sign off before being sent to government.
8. Kevin Hill has spoken to Anne Harkness regarding the date for Ward 2A/2B moving back into the RHC, this won't be until February, possibly longer depending on ventilation plans

Item

3. Patient Update

There was a case of gram negative sepsis [REDACTED]. Gram negative bacteraemia rates within the ward remain low.

[REDACTED]

4. Control Measures

Andy Wilson updated the group on the work ongoing within Ward 2A/2B. Pipe work modification is ongoing along with the sink/tap replacement. Materials for new treatment room and prep room have been ordered. Everything is currently on target for completion on the original date set for 14th December.

Installation of biometrics thumbprint readers into Ward 2A/2B is complete apart from software installation which will be carried out once the ward has moved back in and the computers are switched back on. The biometric readers allows staff to add in parents details to allow them access to the ward. It is thought that the installation of these will reduce the flow of traffic past high risk patients within the ward. This was an infection control recommendation

Dr Inkster and Ian Powrie have requested an option appraisal from the specialist ventilation engineer to see what would be required to have Ward 2A/2B completely rectified and spec'd up to a high standard. The engineer will provide a report next week giving a range of options for the ward some within and without time constraints.

A debrief meeting is going to be held to see if a patient pathway can be drawn up with regards to a patient requiring an ITU bed but with no ITU beds available. At the moment ITU subsequently move equipment/supplies into Ward 6A. It has been requested if a patient can be moved out of ward 6A into a specific room within RHC whilst awaiting ITU bed to minimise distance patient would need to travel to ITU. Dr Inkster stated that a PPVL room would be suitable from an IC perspective

It was noted during a recent domestic cleaning audit that there was not enough microfibre mops available for domestics. This has since been rectified.

All wards within RHC and QEUH have had their trunking holding the cabling behind beds checked and cleaned.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

Item

6. Decant/Contingency Plan

The original decant plan will need reviewed as this was based on a short term decant. The decant plan review will be carried out when the ventilation work report is available and a decision has been taken.

The request to extend the paediatrics use of BMT rooms from 3 to 4 (if required) within Ward 4B QEUH has been granted.

As part of the wider debrief regarding this incident it has been requested that a list regarding what could have been done better should be drawn up in case this situation ever happens again not just at the RHC but anywhere else within Scotland.

7. Communications

There is nothing to send out with regards to an update to patients/parents/staff until we have info regarding ventilation

STV linked in with the communications which has been sent out in relation to the water shut down plan for 4 hours. Questions came from government on the back of the press release but they have been kept in the loop and been involved in numerous teleconferences etc

Emma Watson the government's HAI advisor and microbiologist has requested an SBAR on ventilation. This is complete and awaiting approval by Chief Executive

8. AOCB

Dr Inkster asked if this meeting could be held every 2 weeks. The group agreed that there is still a requirement for a weekly meeting with regards to operational needs but this does not need to be an Incident Management Team meeting. This will be reviewed when the ventilation appraisal report is complete next week.

Next meeting is being held on Friday 30th November at 12pm in Seminar Room GWS-027, Level 3, RHC

Action List

1. Epidemiology report is currently being prepared on by HPS and Microbiology.
2. Annette Rankin's report regarding Ward 2A/2B. No date for submission as awaiting ventilation report.
3. Lorraine Dick is creating a general communication to staff/public in relation to what should not be put down sinks.
4. A timeline outlining when contractors will be completing certain aspects of work will be delayed as estates will need to wait on what work will be required from the ventilation report.
5. Kathleen Thomson is working with staff on identifying how they currently use work stations and will meet up with medical staff to discuss portable work stations identified for Ward 2A/2B.

Incident Management Team Ward 2A, RHC**30th November 2018 at 12:00**

Present: Dr Teresa Inkster, Andy Wilson, David MacDonald, Susie Dodd, Pamela Joannidis, Jen Rodgers, Prof Brenda Gibson, Jamie Redfern, Angela Howat, Dr Iain Kennedy, Kathleen Thomson, Melanie Hutton, Emma Somerville

In Attendance: Ann Lang (minutes)

Apologies: Sandra Devine

Item**1. Introductions**

Dr Teresa Inkster welcomed everyone to the meeting and apologies were received from the above.

2. Minute of Last Meeting

The minutes of the last meeting held on 22nd November were agreed and the following update was provided:-

Update on Actions from previous meeting

1. Epidemiology report is outstanding but Dr Inkster commented that now that patients had been decanted there has been a marked reduction in bacteraemias, fitting with the hypothesis and a meeting to discuss this may no longer be required. Dr Kennedy updated that he now has access to bed days etc. for haematology and oncology patients and can update charts if requested.
2. There is no submission date for Annette Rankin's report regarding Ward 2A/2B as it is dependent on the ventilation report.
3. Lorraine Dick is currently creating a general communication to staff/public in relation to what should not be put down sinks. A meeting has been arranged with Dr Inkster, Dr Kennedy and Lorraine Dick for 14th December.
4. A timeline outlining when contractors will be completing certain aspects of work will be delayed as estates will need to wait on what work will be required from the ventilation report.
5. Kathleen Thomson is working with staff on identifying how staff currently use work stations and will meet up with medical staff to discuss portable work stations she has identified for Ward 2A/2B. Kathleen Thomson confirmed that work is ongoing but has not been finalised.

3. Patient Update

No new cases have been reported in Ward 6A, although cases of Norovirus have increased. Susie Dodd confirmed that

which is impacting on blocking beds. She said Infection Control measures are in place and they continue to monitor the ward.

Item

4. Control Measures

Andy Wilson updated the group on the work ongoing within Ward 2A/2B.

Chlorine dioxide work took place last week on Wednesday night into Thursday and Thursday night into Friday. The last one should be completed on Thursday night.

All main fabric and painting work has been completed with the exception of the Treatment Prep Room.

Professor Gibson commented that she received an email from Dr Hague to say that she did not agree to the removal of trough sinks. Dr Inkster replied that there is an email trail regarding this from Jamie Redfern. Professor Gibson asked for it to be minuted that medical staff did not ask for the sinks to be taken out and did not sign these off. Families are also asking who signed the building off 3 years ago. Jamie Redfern suggested that the removal of sinks go ahead as these can be put back later if required before patients move back in. He said he would like to trial this in an environment to influence what the long term decision is. Dr Inkster advised that they now have typing back from two of the sinks and there is evidence a multidrug resistant pseudomonas is growing and this is the same strain in the sinks in Ward 2A/B and from a patient. She commented that it is her recommendation to have no sink in the anteroom.

Andy Wilson stated that he received a request for additional sinks but has not been given a list of these. Kathleen Thomson agreed to provide Andy Wilson with the list today but needs guarantee that the sinks are clean. Susie Dodd said if the list is extended there needs to be a clearly identified room for cleaning.

5. Healthcare Infection Incident Assessment Tool (HIIAT)

It was agreed that while Ward 2A/2B is decanted the HIIAT will remain at AMBER.

6. Decant/Contingency Plan

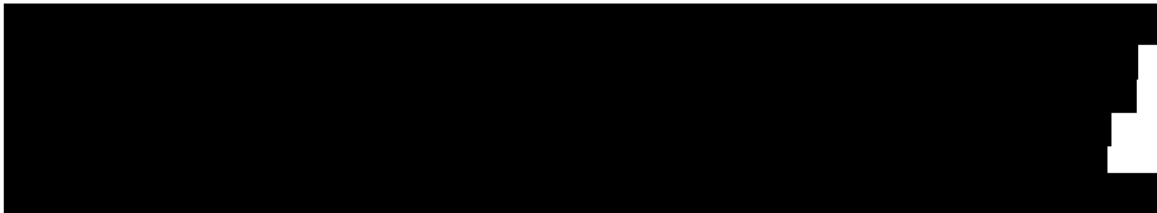
Care of patients in Ward 6A was discussed. Professor Gibson said it has been difficult to manage the delivery of care due to current bed pressures. Jamie Redfern agreed there is an operational challenge for haematology and oncology patients and we need to review the plans regarding the number of patients. He agreed to discuss this with Professor Gibson outwith the meeting.

With regards to ventilation the report from Tom Steele is not yet available. A meeting with the Scottish Government is scheduled for Wednesday. Contractors are preparing an option appraisal but this is not available yet. Dr Inkster agreed to chase up the ventilation report.

At the last meeting it was agreed to move to an operational group meeting. Professor Gibson asked for clarification of the time scales to move the ward back. Kathleen Thomson stated that the original date given of 14th February for the move is what they are working towards but Jamie Redfern said this date may change. He said there is an operational issue for these patients and we need to have a plan in place for these patients and review pathways. Professor Gibson reported that there is a crisis regarding beds for patients that require chemotherapy and Kathleen Thomson suggested meeting today after the ITU meeting.

Item

7. Communications



Dr Inkster said that she will write to HPS for clarity with regards to atypical mycobacteria as they are not on the alert organism list. Jamie Redfern to discuss with Kevin Hill what communication should be issued to staff and parents from these meetings.

When looking at the HIIAT it states that the final decision to release a press statement is the responsibility of the IMT chair but Dr Inkster advised that during this incident it was the executive teams decision to release the statement and approve content.

Dr Inkster wishes Comms to be released informing parents and staff that the ward will not be moving back on 14th December due to ventilation issues. Jamie Redfern agreed to discuss this with Kevin Hill.

8. AOCB

Dr Inkster suggested that if there is a meeting next Friday that this should be a contingency meeting. It was agreed that if a contingency meeting is required information will be issued next week.

Action List

1. Annette Rankin's report regarding Ward 2A/2B. No date for submission as awaiting ventilation report.
2. Lorraine Dick is currently creating a general communication to staff/public in relation to what should not be put down sinks. A meeting has been arranged with Dr Inkster, Dr Kennedy and Lorraine Dick for 14th December.
3. A timeline outlining when contractors will be completing certain aspects of work will be delayed as estates will need to wait on what work will be required from the ventilation report.
4. Kathleen Thomson agreed to provide Andy Wilson with a list of additional sinks required.
5. Jamie Redfern and Professor Gibson to meet to discuss the current bed pressures.
6. Dr Inkster agreed to chase up the ventilation report.
7. Dr Inkster said that she will write to HPS for advice on what to do with a patient with a typical mycobacteria.
8. Jamie Redfern to discuss with Kevin Hill what communication should be issued to staff and parents from these meetings.

Incident Management meeting

Thursday 20th December 2018

Present: Dr Teresa Inkster (chair), Sandra Devine (SD), Claire Cook (CC), Tom Steele (TS), Colin Purdon (CP), Lynn Pritchard (LP), Prof Brenda Gibson, Dr Ian MacDonald (IM), Dr Iain Kennedy, Hilda Crookshanks (HC), Calum MacLeod (minutes)

Teleconference: Susie Dodds

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Incident update – 1. General situation statement

Dr Inkster explained that the IMT was called to discuss [REDACTED] Cryptococcus neoformans [REDACTED]. She explained that this organism is a dimorphic yeast. It is rare and not typically hospital acquired. Sporadic community cases are known to occur and Cryptococcal meningitis is seen in HIV patients. The organism is found in soil and bird droppings particularly pigeons, [REDACTED]

[REDACTED]

Dr Inkster has contacted HPE Mycology laboratory in Bristol who stated that we can expect to see community acquired cases but that they had no hospital acquired cases notified to them.

Incident update – 2. Patient Report

[REDACTED]

[REDACTED]

[REDACTED]

Actions

Incident update – 3. other relevant reports

Dr Inkster has carried out an initial epidemiology report looking back at how many cases there have been of this organism. An initial look at the last two years has revealed [REDACTED]

IK

Iain Kennedy discussed ECOSSE data which shows 13 cases in 10 years with a cluster linked to the Brownlee centre and therefore likely to be associated with HIV. Iain Kennedy agreed to undertake a more detailed review of the epidemiology

It was agreed by the IMT that the current [REDACTED] cases were a data exceedance requiring investigation. Iain Kennedy stated that this also met the definition of a single case of unusual infection

Hypotheses

Dr Inkster discussed the following scenarios which could have been the cause of these cases:

[REDACTED]

[REDACTED]

[REDACTED]

Entry into the building from contaminated pigeon droppings.

Dr Inkster reiterated that if a healthy person inhales this organism the likelihood is that the immune system will cope with it. The people mostly at risk are immunocompromised patients.

Investigations

Inspection of areas

As this organism is related to pigeon faeces areas outside Ward 4C/4D and also the children playground were reviewed and very little evidence of bird faeces was found.

The plant room on the 12th floor which provides ventilation for each of the hospital blocks was also looked at. Upon inspection of the plant room that supplies ventilation to these areas there is evidence of birds roosting with faeces and feathers present. The group discussed how the bird faeces could get into the ventilation. Dr Inkster stated that aerosolisation can occur and enter the system during maintenance. She asked if there was regular maintenance works being carried out within the plant room but facilities informed her that there isn't. Another theory is that if cleaning of the plant room involves high powered washers that could cause aerolisation of the pigeon faeces and could enter the ventilation system. Any evidence of pigeons roosting within the plant room or being able to gain access to the plant room will be dealt with immediately. A daily check for this will be carried out by facilities.

CP

Microbiology testing

Air sampling, settle plates and sampling of bird faeces will be undertaken in the plant room

Air sampling of 6A, 4C and PICU will be undertaken.

Patient isolates

Patients in whom the diagnosis is suspected should have blood cultures and serum Cryptococcal antigen sent. LP also desirable but can be difficult in [REDACTED]

It was suggested to screen all patients currently in Ward 4C and Ward 6A for crypto organisms. It was agreed that it would be up to the Microbiologist on deciding if a crypto test will be carried out on patients instead of having a widespread blanket testing of all patients within the two wards.

Plant room

Further inspection of plant room areas by microbiology

Risk Management/Control Measures – 1. Patients

Priority is to focus on bird issue, sample the plant room and then clean the plant room with a wet mop. Important not to use high pressure water jet. Staff need to use PPE. Whole area needs to be surveyed to find out how the pigeons have been getting in to roost. Block any access and continue to survey and commence with the clean up operation.

Spikes will also be fitted to areas where pigeons are known to roost and netting will be fitted so they cannot get access to certain areas.

Risk Management/Control Measures – 3. Public Health

Dr Iain Kennedy spoke to a senior veterinary regarding any known cases regarding this organism. The veterinary did not have a lot of knowledge regarding this pathogen and are not usually contacted if there are any reported cases.

Dr Iain Kennedy has emailed veterinary consultant within Health Protection Scotland to see if they have anymore knowledge about this.

Risk Management/Control Measures – 3. Staff

Staff will be informed of any updates when available.

HIIAT

The HIIAT was explained and the content of each classification read out.

Severity of illness – Major [REDACTED]
Services – Minor
Risk of transmission – Moderate
Public anxiety – Major

Sandra Devine will complete the HIORT report and send this onto HPS who will then report this onto the Scottish Government.

SD

Communications

Patients

[REDACTED]

TI

[REDACTED]

Press

They are unsure that alerting the public to this as there is nothing we are asking the public to do and it is also unknown what the cause of this is. [REDACTED]

TI,CC

[REDACTED] It was agreed a reactive statement will be prepared that Dr Inkster and Claire Cook before sending it onto Dr Armstrong for approval. Dr Inkster and Prof Gibson expressed concern re Comms and recent feedback from parents in 6A.

Staff

Clinicians will be alerted about the cases and that they are aware about anti fungals and testing Consultant microbiologists are aware

Date and time of next meeting

It was agreed that the next meeting will be on Thursday 27th December at 1400 in the Seminar Room Level 5, QEUH.

Action list with timescale and allocated responsibility

1. Dr Inkster will carry out an epidemiology report looking back at how many cases there has been of this organism.
2. The aseptic pharmacy will be looked into to see if the [REDACTED] patients had been given similar products from the pharmacy.

3. The plant rooms will be cleaned and any evidence/possible access by pigeons will be sealed off.
4. Spikes will be fitted to areas where pigeons are known to roost and netting will be fitted so they cannot get access to certain areas.
5. Facilities will carry out a daily inspection of the plant rooms on level 12 to see if there is any evidence of pigeons roosting or gaining access to the plant room.
6. Samples of the pigeon faeces within the plant room will be obtained and tested by Microbiology.
7. Air sampling will be carried out in Ward 4C and Ward 6A.
8. Microbiologists will decide on a case to case basis if crypto testing will be carried out
9. Sandra Devine will complete the HIORT report and send this onto HPS who will then report this onto the Scottish Government.
10. Claire Cook and Dr Inkster will prepare a reactive press statement.
11. Dr Inkster will speak to Dr Jennifer Armstrong regarding Duty of Candour in relation to this incident.

Estates survey of pigeons on site from 19th December – group shown the report. Evidence of pigeons found in all areas of plant rooms level 12 A-D . Extensive droppings in each of the areas.

CP

Pest control report –all plant rooms checked, most plant rooms contained rubbish, food stuffs and bird droppings. Excessive in some. Plant room 12 – evidence of infestation with birds roosting on beams and pipes. Two live pigeons found. TI has requested photographs to clarify the concerns in plant room 12. Microbiology colleagues have also reviewed some of the plant rooms and obtained photographs of the areas of concern. The report contains recommendations around regular cleaning and inspection of the plant rooms and audits – TI asked CP to take forward which he agreed to do.

CP reported that all the plant rooms have been thoroughly cleaned across the site.

Hypothesis

██████████ linked in time place and person and plant rooms are the only obvious source of the pigeons. Some further discussion between TI and Peter Hoffman (Public Health England) as to how transmission may have taken place. Opinion is that no building likely to be fully sealed. Vents, windows or water are all likely sources. Water being tested.

Risk Management/Control Measures

MAK

CP confirmed that all plant rooms have now been cleaned. TI asked if spikes can be placed on the window sills of ward 4C QEUH. CP noted that the sills look onto the roof top garden and are at low level to the ground. CP feels that spikes on sills probably won't deter pigeons for this reason but agreed to get advice from environmental health. TI queried if the vegetation needed to be present in the roof top garden of 4C as this is not desirable in close proximity to a haematology ward. MAK agreed that it did not and agreed to review it with a view to removing the vegetation.

CP

TI queried cleaning of window ledges particularly those visible outside PICU. CP advised that this was being looked at at present and will be completed asap.

HC had a look back at cases over the last 10 years and fed back to the group. In total there have been 20 cases in Scotland over 10 years. The cases were broken down year on year as follows; 2009 x2, 2010 x4, 2011 x1, 2012 x0, 2013 x2, 2014 x1, 2015 x2, 2016 x2, 2017 x1, 2018 x5. The 5 cases this year have all been since June ██████████

HC

██████████. Of the 20, 6 were HIV positive. The co-morbidities associated with the remaining cases are still to be reviewed. ██████████

TI suggested that 5 since June suggests an increase which may also point towards a change in the pigeon population in Scotland and carriage of Cryptococcus. HC will take this back to HPS consultant veterinary advisor.

RW informed the group that discussion with Health and Safety advised that staff working in areas where pigeons/excrement/dead birds are evident should be wearing PPE. MAK added that staff do wear PPE at present and this is not commonly done. She also added that the time exposure of staff in these areas is minimal. Most common activity is changing air handling filters in the plant room. TI queried whether staff should be wearing masks doing this task. RW advised this be reviewed and consider wearing face masks. MAK agreed to

MAK

do this and advised that pest control contractors have been wearing PPE whilst carrying out the cleaning process. TI emphasised that Cryptococcus isn't the only organism which presents a risk. Chlamydia psittaci is also carried by birds and therefore can be acquired by humans when working in contaminated area. This is a category 3 pathogen

TI informed the group that patient typing is underway in Bristol using a research method. It should be noted that this method of typing is not commonly done and will take a few weeks to come back.

HIAT

The group agreed the following score of AMBER

- Severity of illness – Moderate
- Services – Minor
- Risk of transmission – Moderate
- Public anxiety – Moderate

Sandra Devine will complete the HIORT report and send this onto HPS who will then report this onto the Scottish Government.

Communications

Patients

TI advised that after discussions with Dr Armstrong, it was agreed that patients must be told of the concerns of the IMT.

[Redacted text block]

TI & BG

[Redacted text block]

Press

[Redacted text block]

[Redacted] asked if the Cryptococcus may have lay dormant however [Redacted] so this is very unlikely in this case.

Staff

Medics – concern on Friday about info going to parents re. prophylaxis. TI provided some lines to give to parents. AH reported no issues since. Some queries to staff from parents around air sampling but generally not many concerns expressed. [REDACTED]

External

HPS/SG have been informed generating one question for the IMT; [REDACTED]

AOCB

None

Outstanding actions

Air sampling results and feedback from aseptic pharmacy – SD will chase.

Date and time of next meeting

Await air sampling results [REDACTED].

Action list with timescale and allocated responsibility

- | | |
|--|---------|
| 1. Air sampling results | TI |
| 2. Chase aseptic pharmacy for investigations into medications received by [REDACTED] | SD |
| 3. Plant rooms will now be inspected every two weeks for evidence of pest infestations. | CP |
| 4. Review of roof top garden visible from 4 th floor, QEUH wards with a view to removing vegetation | MAK |
| 5. Cleaning of window ledges including those visible from PICU | CP |
| 6. Discussion with HPS Veterinary consultant re. pigeon population and potential for increase in Cryptococcus | HC |
| 7. Review of PPE for facilities staff working in areas where they are exposed to birds/bird droppings | MAK |
| 8. [REDACTED] | TI & BG |

Post meeting discussion

LP informed TI that when boxes of supplies are delivered to the ward areas, some staff have reported contamination of the outer box with bird droppings. TI discussed this with facilities who will review this on the QE site and with the NDC. Staff will be advised to be extra vigilant. This is another potential transmission route. MAK noted that the QEUH is on the migratory pathway for birds and control would be an ongoing challenge.

MAK

Air samples taken on 6A – 4 rooms . Rm 3 and 18 have heavy growth of fungus but no Cryptococcus identified.

Air samples taken on 4C – 5 rooms sampled, 2 outstanding, 1 clear, Rm 66 has fungus but lower growth than 6A – 4 colonies only

Air sampling on PICU – Low growth of fungus in the corridor. Air samples from rooms outstanding.

Quite a few air sample results across these areas still outstanding. TI also stressed that air sampling is taken during a snap shot in time (2 minutes) and therefore cannot 100% reliably provide evidence that growth of particular fungus doesn't exist. It is reliant on capturing fungal spore bursts at the time of sampling. Heavy fungal overgrowth on plates so not possible to say whether Cryptococcus there or not.

TI

AC requested that the air sampling results be provided to facilities to allow them to be plotted on a map of the hospital site. TI agreed to forward these on.

Discussion took place around the fungal growth in the various areas described above. Cryptococcus not generally found in the environment but ubiquitous in pigeon population so in keeping with pigeon infestation which would explain the growth within the plant room. LD asked how it might get to the patients rooms from the plant room. TI recapped the hypothesis.

- Cryptococcus is airborne and can get in to the hospital via ventilation system especially when accessed for maintenance . This has been described elsewhere,
- Windows may not be adequately sealed, staff in 4C report drafts from windows,
- Droppings found on equipment boxes coming from stores.

TI

In 6A and 4C we would expect to see fungus on plates as they are not hepa filtered wards however 6A seems significantly heavier fungal growth than 4C, the reason for which is unclear. Plates may have been incubated in laboratory longer than necessary over Christmas period which may account for some overgrowth. TI will take this up with labs.

JRe asked about significance of fungus in corridors. TI informed group that fungus can be found anywhere that is not a specialised ventilated area

Hypothesis

- Cryptococcus is airborne and can get in to the hospital via ventilation system,
- Windows may not be adequately sealed, staff in 4C report drafts from windows.
- Droppings found on equipment boxes coming from stores, reported by ICN

Risk Management/Control Measures

Plant rooms and pigeon Infestation: CP reported that plant rooms have been cleaned. They will now be vacuumed and flooring washed to remove any visible contamination that remains. KC added that GP environmental are visiting on a daily basis to look for any signs of pigeons accessing the internal building.

BG asked about using birds of prey to get rid of pigeons. KC stated that this is not used here at present but they are speaking to GP environmental about different options for reducing the pigeon problem on site details of which will be reported back in writing. TI asked how this will be fed back to the IMT. KC stated she would pass the report onto TS and MAK for wider sharing. Ti has forwarded case studies from other hospitals and control measures

KC/TS/MA
K

Patient prophylaxis: BG reported that Ambisome not tolerated well by paediatric patients unlike in adults where it can be administered with few side effects. In the paediatric population there have been a number of challenges; [REDACTED]. Staff are having difficulty managing the numbers of patients requiring Ambisome. It is not limited to inpatients. Some outpatients are attending to receive the prophylaxis on a weekly basis also and this creates challenges around bed availability. BG expressed concern that should bed pressures continue as they are they may need to consider opening OPD beds at the weekend to manage these patients. Clinicians are therefore concerned that long term prophylaxis is not a safe option. Parents continue to ask questions about why their children are receiving prophylaxis and BG concerned that there has been no formal statement from the board. She added that staff locally have provided a statement to the parents which was generated in conjunction with TI.

IK queried if the prophylaxis being given was the only option and where advice should be sought on this. TI advised that we are following EORTC criteria for prophylaxis and that the prophylaxis options are very limited. This has been discussed with the AMT in the past also.

TI concerned that the patients will now be on 6A for a significantly longer period that first envisaged when the prophylaxis regime was agreed and that there are concerns re safety of prophylaxis. In addition, air sampling has shown heavy growth of fungus and 6A is not a hepa filtered ward giving rise to concerns that there is a fungal risk associated with the environment in its current state. TI suggested that portable filter units can be used similar to those already in use on 4B. MC informed the group that the units are very noisy and staff and patients complain about the noise. TI queried whether newer, less noisy, versions of the portable filters may be available. KC and CP agreed to look at portable filter options.

KC/CP

JRe queried that if measures to control Cryptococcus are controlled, do we need to continue to prophylax the patients. TI advised that the fungal growth in the wards remains a risk regardless of the absence of Cryptococcus. BG is representing clinicians in her area who wish to know if the ward is safe to continue to accept patients.

The options were discussed and summarised as

1. Install portable hepa filters throughout ward 6A
2. Continue to prophylax patients
3. Move patients out of ward 6A to an area where ventilation is safer such as WoSCC

BG queried progress of the 2 rooms which remain out of use on 6A due to a leak prior to Christmas. She added that having these rooms out of use is adding to the bed pressures on the unit. CP reported that there are difficulties getting contractors over the Christmas/New Year period. KC and CP will take forward repairs in these rooms as soon as possible. TI advised that the mould in these rooms may be contributing to wards high fungal counts.

KC/CP

JRe summarised that the content of today's meeting has highlighted a risk for patients on ward 6A. This, and the options described above will be reported urgently to directors following the meeting. [REDACTED]

JRe

HIAT

Severity of illness - Minor

Services – Minor

Risk of transmission – Moderate

Public anxiety – Minor

Communications**Patients**

[REDACTED]

[REDACTED]

Press

LD will speak to her directors about what info should be available should we have any queries around this incident and recent concerns raised.

JRe queried whether we were robust enough in our decision to move patients to 6A in Sept 2018. TI responded that WoSCC was the preferred option from an IPC perspective however the clinical risk having no paediatric services on site was a huge risk and justified 6A. JRe added that an extensive risk assessment was undertaken before agreeing 6A as the chosen location. However at that time, the plan was for a short decant period and we now know that the patients will not be able to return to ward 2A/B in the next 12 months.

LD

Staff

BG will feed back to clinicians at a ward meeting this afternoon. She will inform them that the air sampling results are abnormal and there is a wider fungal problem.

BG

External

HPS will be informed of the Green HIIAT.

AOCB

None

Outstanding actions

IK has spoken to veterinary service who were unable to determine the prevalence of Cryptococcus amongst the pigeon population as this is not something they regularly or routinely look for. IK has also asked HPS to look at the national picture for Cryptococcus neoformans amongst patients.

IK

Cleaning of window ledges outside PICU – CP reported that nets have been installed to prevent pigeons resting on the sills however the clean is still to take place.

CP

Date and time of next meeting

TBC

Action list with responsible person and agreed timescales

Action No	Action	Responsible Person	Timescale
1	Report outstanding air sampling results. Air sampling results.	Teresa Inkster	As soon as available
2	Plant rooms will be inspected every two weeks for evidence of pest infestations	Karen Connelly	Ongoing
3	Review of roof top garden visible from 4 th floor, QEUH wards with a view to removing vegetation	Karen Connelly, Mary Anne Kane	Ongoing
4	Cleaning of window ledges visible from PICU	Colin Purdon	7 days
5	Review of PPE for facilities staff working in areas where they are exposed to birds/bird droppings	Mary Anne Kane	
6	Speak to lab re. incubation time for plates	Teresa Inkster	2 days
7	Share report from GP environmental detailing options for reducing pigeon infestations in and around the QEUH site	Karen Connelly, Mary Anne Kane and Tom Steele	As soon as available
8	Review of portable filter options	Karen Connelly, Colin Purdon	7 days
9	Room (10 and 11) repairs on ward 6A	Karen Connelly, Colin Purdon	2 days
10	Report concerns raised at today's meeting to directors	Jamie Redfern	Immediate
11	Take forward discussions with directors regarding comms around this incident	Lorraine Dick	Immediate
12	Feedback summary of today's meeting to clinicians	Brenda Gibson	Immediate
13	Feedback from HPS re. national picture relating to Cryptococcus cases amongst humans	Iain Kennedy	As soon as available

Incident Management meeting

Wednesday 16th January 2019

Present: Dr Teresa Inkster (chair), Colin Purdon (CP), Tom Steele (TS), Karen Connelly (KC), Sandra Devine (SDe), Dr Jennifer Armstrong (JA), Jamie Redfern (JRe), Prof Brenda Gibson (BG), Ian Kennedy (IK), Dr Ian MacDonald (IMc), Jennifer Rodgers (JRo), Dr Alan Mathers (AM), Dr Chris Deighan (CD), Kevin Hill (KH) Susie Dodd (SDo)

Apologies: None

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Purpose of today's Meeting

The air on wards 6A and 4C and within plant rooms was first sampled around Christmas time. Samples from the plant room revealed fungi and *Cryptococcus albidus*. Some plates were overgrown and so repeated. Air sampling was repeated last Wednesday (9th Jan) on ward 6A and 4C after the plant rooms had been decontaminated and before the hepa filters were installed on 6A. TI explained that the reason for the meeting today was to share the results from this air sampling. *Cryptococcus Albidus* has been isolated from 6A and 4C. [REDACTED] however it is also found in pigeon droppings. Discussed with Dr Liz Johnson in Bristol who has suggested this is most likely a breach of the ventilation system and she would suggest that the IMT work to the hypothesis that the duct work is contaminated and requires HPV cleaning.

BG asked if *Cryptococcus* was found in PICU. TI reported that it has not but only one rooms sampled.. BG asked if there was any benefit to sampling 2A however it was noted that there was still construction works taking place and therefore sampling was probably not useful. TI also noted that 4B air counts are normal. BG asked why we don't sample any other wards. TI explained that we are only sampling where the high risk patients are as these are the patients at risk. TI suggested we could sample other wards but it is very possible that the *Cryptococcus* is wide spread. TS explained that the plant rooms which were positive do feed other wards.

Current risk to patients

TI explained that this strain of *Cryptococcus* is less pathogenic but still a risk in haem onc patients. IK added that this strain is seen far less often than the *Cryptococcus neoformans*. He also added that this strain has only been seen once in a clinical case in NHSGGC and this was later changed to a candida. TI has contacted Bristol and the first isolates have been confirmed as *C. albidus* It was noted that although this is a different strain it is still likely that the *neoformans* has come from the ventilation system. IK asked if there was growth of any other fungus. TI explained that it is currently outstanding but there are other fungi growing, we just don't have a species. JRo and JA asked if sampling had been repeated once the hepa filters were deployed. Sampling has not been repeated but it was agreed this would be carried out after the meeting – both particle counts and air sampling with the hope that it will give some confidence around the control measures.

Actions

Control Measures

TI advised that portable hepa filter units should also be deployed in adult ward 4C. CP reported that they will take delivery of 12 hepa filter units tomorrow and another 13 on 25th January. There are 10 haem onc beds in 4C and a number of renal transplant beds. It was noted that although immunocompromised, renal patients are less so than haem onc. Renal transplant cases do not receive any prophylaxis and TI therefore noted that they don't fall into the high risk fungal category. CD agreed to discuss with his clinical colleagues as to what risk they feel there is and whether these patients need hepa filters in place or commenced on prophylaxis.

Cleaning of the duct work was discussed. TS feels that cleaning the duct work with HPV is not an easy process as they service a number of areas. The process of doing this will not be a quick one. TS asked about the prevalence of Cryptococcus in the outside air. TI noted that external air sampling is negative.

TI felt that the hepa filters in place and provision of prophylaxis will reduce the risk. AM suggested that we do not step down any measures. The group agreed. JRe asked if the hepa filters will kill any fungi that might be coming into the room. TI explained that these will clean the air for a period of time but are not a long term solution as filters will clog up.

SDe asked if the positive counts could be residue left behind after the plant rooms were clean. IK felt that regardless it doesn't explain why Cryptococcus was in the air as opposed to the surfaces. JA asked if we know how effective the portable hepa filters are. TI explained that the data we have having used them in 4B previously is positive showing a reduction in particle and fungal air counts. JA asked if the built in hepa filters were more or less effective. TI explained that they are more effective and also explained that the transplant rooms have higher air changes and a positive pressure.

JRo asked if the patients are allowed to walk around in the corridor whilst we don't have adequate hepa filtration in the corridor (further units awaited). TI advised that they should stay in room until additional hepa filters arrive.

Comms: JRe informed the group that a number of parents went to the Scottish government on Sunday with concerns relating to the communications from the IMT particularly those provided to outpatient haem onc population. JRe gave additional written info to parents of inpatients on Sunday and all were satisfied with the content. It contained some information regarding positive outcomes from water group and associated chlorine dioxide programme.

JA asked what measure the particle counts will provide. TI explained that these should be <1000 particle counts and would give confidence that the hepa filters are doing their job.


[REDACTED]

Extensive discussion around communications to be issued to parents regarding today's update. To be further discussed tomorrow morning with the hope that some results will be available from the particle counts.

TS asked if pigeon reducing methods need to be commenced on any other sites. TI advised that BOC is reviewed.

ACTIONS

Listed in table below: Numbers 14 – 21.

Action No	Action	Responsible Person	Timescale
1	Report outstanding air sampling results. Air sampling results.	Teresa Inkster	As soon as available
2	Plant rooms will be inspected every two weeks for evidence of pest infestations	Karen Connelly	Ongoing
3	Review of roof top garden visible from 4 th floor, QEUH wards with a view to removing vegetation	Karen Connelly, Mary Anne Kane	Ongoing
4	Cleaning of window ledges visible from PICU	Colin Purdon	7 days
5	Review of PPE for facilities staff working in areas where they are exposed to birds/bird droppings	Mary Anne Kane	
6	Speak to lab re. incubation time for plates	Teresa Inkster	2 days
7	Share report from GP environmental detailing options for reducing pigeon infestations in and around the QEUH site	Karen Connelly, Mary Anne Kane and Tom Steele	As soon as available
8	Review of portable filter options	Karen Connelly, Colin Purdon	7 days
9	Room (10 and 11) repairs on ward 6A	Karen Connelly, Colin Purdon	2 days
10	Report concerns raised at today's meeting to directors	Jamie Redfern	Immediate
11	Take forward discussions with directors regarding comms around this incident	Lorraine Dick	Immediate
12	Feedback summary of today's meeting to clinicians	Brenda Gibson	Immediate
13	Feedback from HPS re. national picture relating to Cryptococcus cases amongst humans	Iain Kennedy	As soon as available
14	Obtain additional units for the 6A corridor and deploy additional units to complete coverage in corridor of 6A and ward 4C inpatient rooms.	Colin Purdon & Tom Steel	
15	Ascertain risk in adult renal unit and requirement for hepa filter units in 4C/additional prophylaxis.	Ian MacDonald, Chris Deighan, Teresa Inkster	
16		Ian MacDonald, Teresa Inkster	

17	Carry out air sampling and particle counts tonight	Teresa Inkster	
18	Develop comms for adults and paed	Jamie Redfern, Kevin Hill, Jen Rodgers, Teresa Inkster	17/1/19
19	Validate ward 2A PPVL rooms incl air sampling of rooms and ward	Tom Steel and Colin Purdon	
20	Meet again tomorrow morning to discuss progress and actions to date – venue TBC	All	17/1/19
21	Source alternative provider for hepa filter units which will arrive quicker.	Tom Steel and Colin Purdon	

Cryptococcus Incident Management Meeting

Thursday 17th January 2019, 0930 - 1200

Present: Dr Teresa Inkster (chair), Sandra Devine, Lynn Pritchard, Kevin Hill, Myra Campbell, Colin Purdon, Jamie Redfern, Ian Powrie, Gary Jenkins, Dr Jennifer Armstrong, Dr Alison Balfour, Dr Iain Kennedy, Elaine Burt, Jenn Rodgers, Tom Walsh, Tom Steele, Claire Cook, Prof Brenda Gibson, Margaret McLucas, Dr Scott Morris, Melanie McColgan, Karen Connelly, Dr David Stewart, Alan Gallagher, Dr Iain Macdonald, Calum MacLeod (minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

General Situation statement



There has been no new cases since December 2018.

Epidemiology

Dr Iain Kennedy from Public Health carried out a look back of historic Cryptococcus from January 2009 – December 2018. His report will be sent out with these minutes.

Incident update – Relevant reports

Air sampling was carried out within the plant rooms that provide air to each of the two wards. They came back positive for Cryptococcus species but not Neoforman. Other organisms were found that are carried by pigeons giving evidence of an infestation of the plant room.

Air sampling was also carried out in Ward 4C and Ward 6A where Cryptococcus was found.

Air sampling was carried out in PICU, RHC but was limited to a corridor and one room due to accessibility but **no** Cryptococcus species was found.

Particle counts were carried out in Ward 6A which came back much higher than expected especially with the hepafilter units turned onto maximum power. Nursing staff informed Dr Inkster that there was numerous showers bases that have mould grown on them due to the seals being broken and water leaking. This would contribute to the much higher than expected particle counts.

The particle counts within Ward 4C better overall as they were taken in rooms without Hepafilters units.

Decontamination of Air Ducts

There are 4 plant rooms on the roof of the QEUH, with each plant room providing air to the stack below (A-D) down to level 4.

The RHC and QEUH Level 3 and below is provided by separate plant rooms that after inspection have no evidence of pigeon infestation.

Facilities are speaking to specialist this afternoon to obtain how they would go about cleaning the air ducts and what sort of time frame this would entail. Specific sections of the air ducts could not be cleaned as you could not confirm if there was any organic source of the Cryptococcus would be captured by this. Dr Inkster has spoken to Liz Johnston an expert in Cryptococcus species who recommended a Hydrogen Peroxide Vapour (HPV) clean.

The possibility of carrying out scope works within the air ducts will not be possible unless you turn off the air supply to that area which means no air changes or control over heating/cooling of the area can be made.

Dr Inkster has requested schematic of the ventilation system/air ducts for the QEUH.

The introduction of air conditioning units for high risk areas would not be practical as an air source would be needed which would entail breaking through walls to obtain

Dr Inkster will discuss the ventilation system with PHE

Hypotheses

Below are the current hypothesis which are being investigated.

Infestation of pigeons within the plant room that supplies air to Ward 4c and Ward 6A, QEUH. Aerolisation of bird droppings has occurred and this has subsequently travelled down the ducts and into the wards. Results from the plant room have also been found in the air sampling results within Ward 4C and Ward 6A.

Reports from staff regarding boxes delivered to the wards which have been contaminated by pigeon faeces.

Contaminant within the labs has been ruled out as you would see multiple positive samples across specimens. Two different labs have handled samples

Risk Management/Control Measures – Patients

12 Portable Hepafilter units will be delivered into Ward 4C haematology today. There is also another 6 Hepafilter units that can be moved over from the Beatson today.

It was agreed that patients within Ward 4C haematology will be put on prophylaxis.

Prophylaxis for renal in patients on the other side of ward 4C is going to be discussed with other clinicians within ward 4C Renal and Dr Scott Morris will liaise with Dr Inkster regarding this.

If control measures are introduced for adult renal patients then it should be discussed for paediatric renal patients as well as a precautionary measure.

Further Investigations

There is currently numerous rooms within Ward 6A that have different degrees of water damage due to shower leaks. Due to the leaking water mould has been found within the shower rooms which can cause invasive fungal infections like aspergillus if they start to spore.

Within Ward 6A there is currently 2 rooms (10&11) out of use due to a leaking cistern. This leak has extended to the corridor which has caused the flooring to ripple. Work is currently ongoing to rectify this and should be complete by the end of the week.

There are currently 4 high risk patients currently in Ward 6A which will need relocated due to the current mould issues within the shower rooms. It has been suggested that they could be moved into Ward 4B BMT QEUH but only as a temporary measure. Melanie McColgan will check to see if Ward 4B can accommodate this.

An air testing regime for air sampling will be created. Samples from areas which we do not think are affected, as this will help prove the hypothesis. Air sampling of possible areas for decant will also be carried out to identify they are suitable for these high risk patients. Air samples of areas within stack B and D, and level 3 or below, QEUH will be carried out.

Recommendations

The recommendation from this IMT for the operational group is to

- Increase the use of the Hepafilters to include Ward 4C Haematology
- Move the high risk patients from Ward 6A into Ward 4B BMT, QEUH depending on current bed numbers
- Patients to be put on Prophylaxis within Ward 4C Haematology and Ward 6A

This should be set in place until information can be obtained and options reviewed for a possible move of Ward 6A into a separate area so that work can be carried out to the showers.

HIAT

The HIAT was discussed but was not carried out until a decision by the operational group is made later on today.

Communications

It was agreed that communications will be agreed after the operational meeting.

HPS

IPCT will contact HPS and inform them of the situation.

Date and time of next meeting

It was agreed that a follow up meeting will be held today (17th January) at 1600 on Level 3 Meeting Room 008, QEUH.

Action list and allocated responsibility

- | | |
|--|-------------------------|
| 1. Dr Inkster will contact Public Health England to see if they had any historic issues regarding this situation of contaminated ducts and how they went about solving this. | Teresa Inkster |
| 2. Facilities are to contact cleaning experts to obtain how they would carry out an HPV clean of the air ducts and what time frame it would take. | Facilities |
| 3. 12 Portable Hepafilter units will be delivered into Ward 4C haematology today. There is also another 6 Hepafilter units that can be moved over from the Beatson today. | Facilities |
| 4. Air sampling will be carried out in stack B, D and lower than level 4 QEUH to double check that they are not affected as well | Teresa Inkster |
| 5. Melanie McColgan is to check to see if 4 beds can become made available for high risk patients from Ward 6A as a temporary measure. | Melanie McColgan |
| 6. Work regarding the leaking cistern in Ward 6A (Room 10/11) which has caused water damage to the rooms and corridor outside if sue for completion by the end of the week. | Facilities |
| 7. Facilities will check up on the thermal works on the windows within the wards to see if there are any possible leaks. | Facilities |
| 8. Facilities are going to investigate reports of heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A. | Facilities |
| 9. IPCT will contact HPS and update them on the current situation | IPCT |
| 10. Facilities to carry out a survey of the shower work required within Ward 6A. | Facilities |

Cryptococcus Incident Management Meeting

Thursday 17th January 2019 1600 - 1800

Present: Dr Teresa Inkster (chair), Sandra Devine, Lynn Pritchard, Kevin Hill, Myra Campbell, Colin Purdon, Jamie Redfern, Ian Powrie, Gary Jenkins, Dr Alison Balfour, Dr Iain Kennedy, Elaine Burt, Jenn Rodgers, Tom Walsh, Tom Steele, Claire Cook, Prof Brenda Gibson, Dr Jennifer Armstrong, Melanie McColgan, Karen Connelly, Dr David Stewart, Alan Gallagher, Dr Iain Macdonald, Dr Alan Mathers, Calum MacLeod (minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting

The draft minutes from this morning IMT meeting was sent out to group prior to this afternoons meeting. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update of Actions from this morning IMT

1. Dr Inkster spoke to Peter Hoffman from Public Health England who is ventilation expert and was confident in Dr Inkster Hypothesis. He confirmed that practice is often to deep clean the air ducts if they are contaminated, but that the key is finding source/reason of contamination and dilution should then occur. Peter suspects there is possibly a structural issue which has allowed the ingress of pigeon faeces into the ventilation system. Peter was unable to give the exact information without looking at the specifications and schematics of the ventilation system. It was agreed that a teleconference will be set up with Peter Hoffman, Dr Inkster and facilities colleagues for Monday to discuss this further.
2. Facilities have been in contact with the ventilation cleaning experts regarding a HPV clean of the air ducts. The cleaning of the air ducts is very complex but affirmed our concerns that they will make sure none of the HPV will get into areas it shouldn't.
3. 18 portable HEPA filters have arrived and will be moved up to ward 6A once facilities have completed a volumetric calculation for the corridor to determine how many are required. Any remaining HEPA filters will be used in Ward 4C. More HEPA filters units should be arriving on Saturday from France.
4. Ward 4B confirmed they could accommodate 4 patients for a very limited time. They reiterated that this is only based on elective admissions and have only looked at three weeks in advance.
5. Air sampling of Ward 4C Renal transplant and below Level 4, QEUH has been carried out. PICU and Paediatric renal transplant air sampling will also be taken. Air sampling of PICU, Paediatric Renal transplant RHC and areas with the other two stacks B and D will also be carried out. This is to reassure the group that the Cryptococcus is only present in stack A & C and not throughout the whole hospital.

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Actions

6. Work has stopped on the leaking cistern in Ward 6A work on request from ward staff. Dr Inkster will contact the Senior Charge Nurse as to why this was requested.
7. Thermal work on windows within ward 6A is ongoing.
8. Investigation into the heavily soiled boxes being delivered to wards is ongoing.
9. Dr Inkster has updated HPS and will contact Scottish Government after this meeting.
10. Survey of the showers/flooring requiring repair is currently being undertaken. Dr Inkster and Susie Dodds will assist with the HEI scribe with regards to the work required.

Operational Meeting Update

Kevin Hill updated the group from the operational meeting that took place after this morning IMT. Below is an assessment based on clinical risk and patient assessment process the draft operational plan proposed for the immediate future is as follows:

1. Identify and quantify the current high risk haematology and oncology (non BMT) inpatients in Ward 6A
2. To consider transferring high risk (non BMT) to ward 4B
3. Forward plan elective admissions to Wards 6A and 4B (next 2 weeks) and identify available capacity in Ward 4B
4. Complete remedial works to showers and flooring in Ward 6A, QEUH
5. Continue with prophylaxis and mobile HEPA filters units in Ward 6A, QEUH.
6. Install additional mobile HEPA filters units to corridor areas in ward 6A and ward 4C
7. Complete works in RHC in ward 2A BMT (8 beds) and once clinically appropriate following sample results; intended use for BMT (from ward 4B) and high risk patients (from ward 6A)
8. Complete works to RHC Ward 2B day care and once clinically appropriate following sampling results; intended use for day Care (from ward 6A)
9. Point of use filters will be fitted in Ward 2A and 2B RHC
10. Undertake full testing and validation to determine and agree date for clinical implementation (admit patients). Date TBC
11. Discontinue paediatric BMT and high risk patients use of ward 4B (latter dependent upon point 2 above)
12. The above immediate and short term contingency plan enables further review of other ward options and consequences to be rapidly assessed and meanwhile commence with further operational planning to determine a preferred options list to address the current situation and conclude a longer term plan and possible timescale for implementation.

Other options include:

- Return Ward 4B and Ward 6A patients to RHC
- Decant another paediatric ward to ward 6A
- Paediatric patients to Beatson
- Adult patients to Beatson
- Mobile ward unit situated on campus
- Paediatric patients to other hospital elsewhere in Scotland and UK

Point 7 regarding the completion of work for an 8 bedded area within Ward 2A RHC was discussed. Concerns about accommodating these patients that has a building site surrounding it would not be ideal. Staff will require to use areas/facilities out with the 8 bedded area to make up drugs etc and it was unsure how this would be accomplished as the surrounding area is a building site.

Point 8 which suggests using Ward 2B day care once works have been complete also has challenges as what would happen if a patient is required to stay overnight they would need to be transferred across the hospital to ward 6A in the QEUH.

Risk Management/Control Measures

Adult renal clinicians have identified some patients that will require prophylaxis and will speak to microbiology regarding this.

Jenn Rodgers is going to request staff to raise the HEPA filter units within ward 6A to be raised to level 4 for inside patient rooms and 6 for outside in the corridor.

It was suggested that a filter upgrade could be used to filter out the Cryptococcus within the air supply. Facilities will see what type of air filter would be required for this and check to see if this could be a viable option.

Dr Inkster received confirmation that air sampling which was carried out in Ward 7A and 7D, QEUH for a different incident but was also tested for Cryptococcus has come back positive for C.albidus Cystic Fibrosis patients use these wards but they are not as susceptible to this Cryptococcus organism. It seems that all four stacks within the QEUH are affected.

The immediate safest option is to move high risk patients from Ward 6A into Ward 4B where they have freed up 4 beds. Clinicians will need to agree the highest risk patients that are to be moved. Dr Alan Mathers said that we cannot be sure that there is no risk of Cryptococcus within an area the patients are being moved into as well the shower area not having any mould/dampness.

Due to the time of the day it was suggested that the high risk patients move into Ward 4B be delayed until Friday morning. This way it would not disrupt any patients that are expected to be going to bed soon and there would be more staff available to accommodate this move during the day.

HIAT

The HIAT was discussed but was not carried out until a decision was agreed regarding when patients will be moving.

Communications

Press

Claire Cook informed the group that the Sun newspaper has been in contact this morning and this afternoon looking for an update on the situation regarding this. The group agreed that if we are going to release a proactive press statement then information will also be needed to distribute to patients/parents and staff.

Date and time of next meeting

The next meeting is being held on Friday 18th January at 1500 in Seminar Room GWS-031, Level 3, RHC.

Action list and allocated responsibility

- | | |
|--|-----------------------|
| 1. Portable HEPA filter units are expected to be delivered from France on Saturday 19 th January. These will be distributed to ward 4C Haematology and Ward 6A. | Facilities |
| 2. Air sampling will be carried in PICU, Paediatric Renal transplant and areas within stack B and D of the QEUH. | Teresa Inkster |
| 3. Work regarding the leaking cistern in Ward 6A (Room 10/11) has currently stopped. Dr Inkster is going to contact the Senior Charge Nurse as to why they requested this to stop. | Teresa Inkster |
| 4. Survey of what shower and flooring work is required in Ward 6A is to be completed | Facilities |
| 5. Teleconference with Peter Hoffman, Dr Inkster and Facilities will be organised for Monday 21 st January. | Teresa Inkster |
| 6. Facilities will check up on the thermal works on the windows within the wards to see if there are any possible leaks. | Facilities |
| 7. Facilities are going to investigate reports of heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A. | Facilities |
| 8. Facilities will look into filters for the air ducts that can stop Cryptococcus from entering the air supply. | Facilities |

Cryptococcus Incident Management Meeting

Friday 18th January 2019

Present: Dr Teresa Inkster (chair), Lynn Pritchard, Sandra Devine, Kathleen Thomson, Myra Campbell, Claire Cook, Susie Dodds, Tom Walsh, Angela Howat, Pamela Joannidis, Karen Connelly, Prof Brenda Gibson, Sarah Jane McMillan, Dr Ian MacDonald, Dr Grant McQuaker, Kevin Hill, Jamie Redfern, Jenn Rodgers, Colin Purdon, Tom Steele, Dr Alan Mathers, Julie Hegarty, Dr Ian MacDonald, Calum MacLeod (minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting

The minutes from yesterday's IMT were disseminated to the group. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum MacLeod by Tuesday 22nd January.

Update of Actions from Thursday 17th January IMT

1. Portable HEPA filter units are expected to be delivered from France on Saturday 19th January. These will be distributed to ward 4C Renal and 4C Haematology where required.
2. Air sampling within stack B & D, Ward 4C Renal, PICU and Paediatric Renal Transplant Room will be completed by today.
3. Work regarding the leaking cistern in Ward 6A (Room 10/11) has been resolved and being temporary stopped due to issues with the scribe documentation.
4. Survey regarding what showers/flooring work is required in Ward 6A has been complete.
5. Teleconference with Peter Hoffman and microbiology was conducted today. Dr Inkster informed the group that it was very difficult to get hold of experts and have to go with times they are available.
6. Survey regarding the thermal works on windows is complete and will be available shortly.
7. Investigation regarding heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A is being investigated. The area where the boxes arrive has been cleaned and facilities have asked procurement to look into the supply route of the boxes.
8. Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply.

Actions

9. All plant rooms including one that supply the RHC are being inspected every 2 weeks
10. Pest control are coming out to assess the roof top garden and vegetation.
11. Cleaning of window ledges outside PICU has been complete
12. The review of PPE use for facilities staff working within the plant room areas is complete.

Incident Update

3 patients classed as high risk have been moved down into Ward 4B, with another patient due to be moved.

Facilities have completed their shower survey and compiled a HEI scribe which IPCT have approved. Susie Dodds and Kathleen Thomson have agreed to meet with Willie from estates to identify 8 rooms in Ward 6A where work can be started.

Work in these rooms will start over the weekend and plan to have this completed next week.

Work will continue on the two rooms (10/11) that are currently closed due to cistern leak.

Ward 4C Haematology HEPA filter units have been delivered with currently 4 units in the room and 4 in corridor.

Ward 4C Renal are still to get HEPA units which should arrive on Saturday morning.

Plant Room Update

Walk round of the plant rooms was carried out this morning. Very limited access to the ventilation system itself as you would need to shut off aspects of it to gain access which would lead to no fresh air or heating being transported to 4 ward areas at a time.

HIIAT

The group agreed to class this Cryptococcus and shower mould issue as a whole.

The HIIAT was explained and the content of each classification read out. The group agreed the following score of AMBER;

Severity of illness – Minor

Services – Moderate

Risk of transmission – Moderate

Public anxiety – Moderate

Communications

Press

Claire Cook sent a statement to the Sun newspaper yesterday evening but nothing has appeared today. More telephone inquiries from the Sun have been received today.

It was agreed that before the press release statement is released staff and patients will be informed of the current situation as well as the Scottish Government.

A press release has been drafted which will be checked for accuracy before being sent to the Executive group for final approval.

Some members of this group may not all agree with the press statement but not everyone across the multi disciplinary colleagues who attend the IMTs will, so it is about getting the balance correct.

Staff

A Core Brief will be sent out to all staff outlining the press statement. It has been requested that some lines below the statement should include information particularly about Cryptococcus and that it does cause skin rashes/respiratory issues and is harmless to pregnant women.

Staff from ward 6A have requested some more information regarding this as they are given the same information as patients/parents. This would allow them to answer any queries patients/parents have and also relieve anxiety within the ward regarding this.

HPS

Sandra Devine will update HPS regarding the current situation.

Date and time of next meeting

The next meeting is being held on Monday 21st January at 11am in Level 4 Seminar Room, QEUH

Action list and allocated responsibility

- | | |
|--|--|
| 1. HEPA filter units expected to be delivered on Saturday 19 th January will be distributed to Ward 4C Renal and 4C Haematology where required. | Facilities |
| 2. Air sampling within stack B & D, Ward 4C Renal, PICU and Paediatric Renal Transplant Room will be completed by today. | Teresa Inkster |
| 3. Work regarding the leaking cistern in Ward 6A (Room 10/11) is ongoing. | Facilities |
| 4. Susie Dodds and Kathleen Thomson will identify the 8 worse affected rooms regarding the showers/flooring work required. | Susie Dodds/
Kathleen Thomson |
| 5. Survey regarding the thermal works on windows is complete and will be available shortly. | Facilities |
| 6. Investigation regarding heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A is being investigated. Facilities have asked procurement to look into the supply route of the boxes. | Facilities |
| 7. Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply. | Facilities |
| 8. Pest control are coming out to assess the roof top garden and vegetation. | Facilities |

Cryptococcus Incident Management Meeting

Monday 21st January 2019

Present: Dr Teresa Inkster (chair), Jamie Redfern, Mark Dell, Myra Campbell, Sandra Devine, David Stewart, Colin Purdon, Karen Connelly, Elaine Burt, Kevin Hill, Sandra Bustillo, Stephen Bowhay, Jenn Rodgers, Susie Dodd, Lynn Prichard, Pamela Joannidis, Tom Steele, Tom Walsh, John Mallon, Prof Brenda Gibson, Dr Iain Kennedy, Ian Powrie, Calum MacLeod (minutes)

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting

The minutes from Fridays IMT were disseminated to the group. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update of Actions from Friday 18th January IMT

1. HEPA filter units were delivered on Saturday 19th January and have been distributed to Ward 4C Renal and 4C Haematology where required.
2. Air sampling within stack B & D, Ward 4C Renal, PICU and Paediatric Renal Transplant Room has been completed.
3. Work regarding the leaking cistern in Ward 6A (Room 10/11) is ongoing.
4. Susie Dodds and Kathleen Thomson identified the 8 worse affected rooms with regards to the showers/flooring.
5. Survey regarding the thermal works on windows is complete with no major concerns found. This report will be sent out to the group.
6. Investigation regarding heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A is ongoing.
7. Possible filters for the air ducts that can stop Cryptococcus from entering the air supply is ongoing.
8. Pest control are coming out to assess the roof top garden and vegetation.

Actions

[REDACTED]

[REDACTED]

While visiting the ward during the weekend Dr Inkster was alerted to a dirty vent within one of the rooms which was housing a patient. The vents were all cleaned in September before patients were moved into the ward and would not expect to see the amount of dust build up on them. Dr Inkster has requested the vents to be cleaned.

The chilled beams within Ward 6A have been requested to be cleaned as heavy build up of duct and fluff was evident. These beams were last cleaned 1 September and that amount of dust looked normal from the last clean carried out in September. Dr Inkster thinks this is unacceptable and the annual cleaning regime for these chilled beams will need to be revised.

A box located on the roof outside ward 4C Haematology looks like birds have been nesting in it has been requested to be removed.

Air Sampling Results

Initial result from air sampling from the PICU and renal transplant wards within the RHC so far has not had any yeast growth on the plates which is re-assuring but complete results won't be available until 7-10 days.

It was agreed that for the interim and reassurance twice weekly air sampling will be take place in Level 7, QEUH to be used as a reportable marker.

Further ventilation work and investigation is being carried out by Peter Hoffman and Dr Christine Peters.

Ward 6A Shower Rooms

Tom Steele informed the group that the 8 worse affected rooms that were identified will have their work completed by Wednesday as long as no HPV clean or deep clean treatment is required. Dr Inkster said that realistically that the ward would not be ready for approximately a month to allow work and checks to be carried out to all rooms. Once work is completed a HPV clean can be carried out and the appropriate air sampling conducted to make sure no traces of Cryptococcus is present. This will also allow re-assurance for patients and their parents for when they move back into the ward.

The materials to carry out the work in room 10/11 is arriving on Wednesday and it is currently unknown how long it will take to complete.

Control Measures

With the numerous building works currently being carried out in Ward 6A it was suggested that the remaining patients be decanted into CDU, RHC. It was suggested that the 8 bedded area within Ward 2A, RHC could be used to house low risk patients.

It was suggested that the remaining patients in Ward 6A could be moved into the PPVL rooms within CDU, RHC. There was suggestion that a low risk patient group could be moved into Ward 2A/2B where an 8 bedded area is nearly ready. These rooms will be used for low risk patient groups and air sampling will not be carried out for this.

HIAT

The HIAT was explained and the content of each classification read out. The group agreed the following score of AMBER;

Severity of illness – MINOR
Services – MODERATE
Risk of transmission – MODERATE
Public anxiety – MODERATE

Public Communication

General press release on Friday at 8pm but did not mention patient deaths but after social media mentioned it STV contacted the press office prompting another press release on Saturday which prompted political comments and request for public inquiry.

Focus of the press has been regarding the Cryptococcus and not on the mould found within the shower areas.

It has been suggested that a meeting should take place with families from Ward 6A and someone from GG&C board who can discuss what is happening.

A press release will be made later on today once what is being decided with regards to the patients in Ward 6A.

Patient Communication

A social media site used for peer support for patients who are in Ward 6A is causing a lot of alarm and anxiety for parents.

Agree a formal document and give it out at clinics and send out to all patients who are haematology/oncology/BMT patients. Kevin Hill will draft a letter and share with certain people of the group before sending out to patients/families.

Staff Communication

A number of staff with anxiety called in regarding this so a core brief should be released telling them what control measures have been put in place and who is vulnerable.

Dr Inkster has spoken to staff both in Ward 6A and Ward 4C Haematology as well as met up with haematology clinicians to update them on the situation.

Mangers should make sure staff are aware how to deal with calls from the press and not to pass on communication until certain on who they are speaking to.

AOCB

Dr Inkster informed the group that there has been 2 cases of murcomycosis within the Critical Care Unit, QEUH. Both results came from respiratory samples. This fungal infection can also be found in bird faeces but stressed that it is too early to say it is the air. The process of eliminating out numerous other sources is currently being investigated.

Numerous Freedom of Information requests have been received regarding all pigeon related issues from 2018, outstanding maintenance work required on the site, minutes of all the IMTs regarding this issue.

The government department Health & Safety at Work (HSE) will be visiting the QEUH campus on Thursday morning and have requested access to plants room.

Date of next meeting

It was agreed that an operational meeting will be held after this IMT and the group will meet back up to discuss options later on this afternoon.

Action list and allocated responsibility

- | | |
|--|-------------------|
| 1. Investigation regarding heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A is being investigated. Facilities have asked procurement to look into the supply route of the boxes. | Facilities |
| 2. Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply. | Facilities |
| 3. Pest control are coming out to assess the roof top garden and vegetation. | Facilities |
| 4. It was agreed that twice weekly air sampling will be take place in Level 7, QEUH. | Lab |
| 5. Box which looks like it is being used for birds nesting is to be removed from outside Ward 4C Haematology. | Facilities |
| 6. Chilled beams are to be cleaned throughout Ward 6A | Facilities |
| 7. Vents are to be cleaned throughout Ward 6A. | Facilities |
| 8. Timeline for when Room 10/11 is to be confirmed once materials have been delivered on Wednesday 23 rd January. | Facilities |
| 9. 8 shower rooms identified will have their work complete apart from any cleaning by Wednesday 23 rd January. | Facilities |
| 10. The decant of the remaining patients in ward 6A is to be looked into by the operational group. | |
| 11. Communication regarding this incident are to be confirmed once the group agreed which option they are going to use from the operational group. | |

Cryptococcus Incident Management Meeting

Tuesday 22nd January 2019

Present: Dr Teresa Inkster (chair), Jenn Rodgers, Jamie Redfern, Elaine Burt, Myra Campbell, John Mallon, Karen Connelly, Colin Purdon, Susie Dodd, Tom Walsh, Sandra Devine, Lynn Pritchard, Dr Iain MacDonald, Prof Brenda Gibson, Kevin Hill, Dr Aleks Marek, Calum MacLeod (minutes)

Teleconference: Mark Dell, Sandra Bustillo, Dr Iain Kennedy

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 21st January 2019

The minutes from Monday IMT were disseminated to the group. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Situation Update

Susie Dodd has carried out an inspection of all the 20 rooms within CDU, RHC.

Susie has identified 17 rooms in total that would be suitable for patients. 12 of these rooms are ready for admissions today with a further 3 rooms should be ready once a strong odour of glue has been cleared. Another 3 rooms were found to have sealant gaps within the shower rooms which could cause damp/mould so facilities will fix this by Wednesday afternoon. All the drains will be cleaned as well as point of use filters fitted to the taps/showers.

With the remaining 3 rooms, 2 will be used as a treatment room and clean prep room. The last remaining room (room 3) requires the shower room floor to be replaced but it was agreed that this will be sealed off and used as a day care room.

Everyone was in agreement for the haematology patients to move into CDU.

No immunocompromised patients will be placed in CDU and will remain in Ward 4B, QEUH. Currently 7 patients in Ward 4B, with one patient being transferred up to Aberdeen tomorrow.

Ward 6A Update

Facilities are on target to complete the 8 rooms identified by IPCT by Wednesday evening.

The other two rooms (10/11) that were damaged due to a leaking cistern need the IPC panels stripped out and aiming for this to be completed by Sunday.

Actions

The remaining rooms within Ward 6A have less degrees of damage so less work required. Colin Purdon will report back to the group about a timeline of when this work will be completed. Page 283

Once all the work has been complete an HPV clean will be carried out. Air testing will be carried out without the HEPA filters switched on, this will give an indication that all the mould/damp has been removed within the ward.

Further air sampling will be carried out after the HEPA filters have been switched on for 24 hours within the ward.

Jenn Rodgers has requested for more HEPA filters for ward 6A, but awaiting delivery of more.

Ward 4C Haematology

Ward 4C, Haematology identified some issues regarding their bathrooms in which Colin Purdon will follow up.

Cabinet Secretary Visit

Cabinet Secretary carried out a visit to the hospital today where she met Jane Grant, Chief Executive of GG&C. She was then given a tour of Ward 2A/2B RHC and Ward 6A QEUH by Jenn Rodgers and spoke to numerous patients/parents. She gave a statement to parliament informing them patient safety was our highest priority and IPC measures have been put in place.

The cabinet secretary has requested an external advisor will be appointed to carry out a review of the design, commissioning and maintenance of the QEUH. This review will be made public and acted upon so that future lessons can be learned.

HIIAT

The group agreed to keep the HIIAT score at AMBER

Public Communication

A pro active press statement regarding 2 HAI cases of murcomycosis within Critical Care, QEUH is being released. After an IMT held on Monday where it was identified that a leaking dialysis point is the likely cause of this fungal infection. The identified room has been sealed off and estates are currently working to rectify this.

Exposure through other media networks like social media has been requested. The press office will put the staff briefing on the public facing GG&C website.

Patient Communication

A letter has been drafted that will be sent to out to all inpatients and all in patients who are not currently in the ward informing them of the situation and giving them a contact number for any queries they have.

Staff Communication

A core brief has been written and will be sent round to all staff tomorrow.

AOCB

The government department Health & Safety at Work (HSE) will be visiting the QEUH campus on Thursday morning and have requested access to plants room.

A member of staff has requested that facilities look at female staff toilet that is situated in CDU.

Date of next meeting

It was agreed that the next meeting will be held on Thursday 24th January at 1400. This meeting will take place at the Seminar Room, outside NICU, Maternity building.

Action list and allocated responsibility

- | | |
|--|------------|
| 1. Investigation regarding heavily soiled boxes from procurement being delivered to Ward 4C and Ward 6A is being investigated. Facilities have asked procurement to look into the supply route of the boxes. | Facilities |
| 2. Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply. | Facilities |
| 3. Pest control are coming out to assess the roof top garden and vegetation. | Facilities |
| 4. It was agreed that twice weekly air sampling will be take place in Level 7, QEUH. | Laboratory |
| 5. Box which looks like it is being used for birds nesting is to be removed from outside Ward 4C Haematology. | Facilities |
| 6. Chilled beams are to be cleaned throughout Ward 6A | Facilities |
| 7. Vents are to be cleaned throughout Ward 6A. | Facilities |
| 8. Work within room 10/11, Ward 6A is to be finished by Sunday 27 th January. | Facilities |
| 9. 8 shower rooms identified will have their work complete apart from any cleaning by Wednesday 23 rd January. | Facilities |
| 10. Facilities to look at staff female toilets within CDU, RHC | Facilities |
| 11. Letter to all inpatients and patients not currently in the ward are to be sent out informing them of situation and giving a number to call with any queries. | J Redfern |
| 12. A timeline of when the issues identified within Ward 4C Haematology shower rooms will be rectified. | Facilities |
| 13. Timeline for when all the work within the shower rooms will be completed | Facilities |
| 14. More HEPA filters have been requested for Ward 6A | Facilities |

Cryptococcus Incident Management Meeting

Thursday 24th January 2019

Present: Dr Teresa Inkster (chair), Lynn Pritchard, Tom Steele, Colin Purdon, Karen Connelly, John Mallon, Angela Johnson, Prof Brenda Gibson, Elaine Burt, Sandra Devine, Myra Campbell, Karon McDowall, Dr Iain MacDonald, Kevin Hill, Jamie Redfern, Calum MacLeod (minutes)

Teleconference: Mark Dell

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Dr Inkster reiterated confidentiality as there is a media story referencing a staff insider having seen pictures a microbiologist took of the plant room. All information and any correspondence sent out regarding this IMT is confidential.

Minutes from the previous IMT meeting 22nd January 2019

The minutes from Monday IMT were disseminated to the group. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

1. Facilities have investigated the soiled boxes that were reported as delivered to the ward with heavily soiled pigeon faeces. The service yard in which the deliveries are made to the QEUH has been cleaned. Procurement did report pigeon issues in one of its offsite depot in Hillington last August/September. Cleaning of this area was undertaken with pigeon deterrent of the area was undertaken. No reports of any issues since.
2. Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply. This would have a knock on effect to the motor speed as the filters are very heavy.
3. Pest control have found no previous or current nesting issues on Ward 4C flat roof that has vegetation. Dr Inkster has said that it is not a good idea due to its proximity to Ward 4B and Ward 4C as this increases the risk of fungal spores entering the ventilation. Dr Inkster has requested if all the vegetation can be removed and concreted over.
4. Twice weekly air sampling is taking place in Level 7 which will be used as an indicator ward.
5. The box which is thought could be used as a nesting area for birds has been removed from the flat roof beside ward 4C Haematology.
6. The cleaning of chilled beams and vents within Ward 6A is ongoing.

Actions

7. Work is on track to be completed by Sunday 27th January for Room 10/11 in Ward 6A.
8. The 8 shower rooms identified in Ward 6A had work completed yesterday. Work has started on the other rooms.
9. The drain issues within the staff female toilets beside CDU,RHC has been addressed.
10. 2 letters have been compiled, one for inpatients and another for patients not currently on the ward. The letter informs them about the current situation and offers them a contact number to use if there are any queries which will be manned by admin staff who will take calls and field them to where they go. The group agreed that communication should be sent out to patients/parents but raised concerns on how this contact line could be staffed and how timely queries from patients could be answered.
11. Lynn Pritchard is meeting with Kerr Clarkson to go over the issues identified within Ward 4C Haematology.
12. All the work within Ward 6A including cleaning the vents, chilled beams, shower works and HPV clean is Thursday 31st January.
13. More HEPA filters have been ordered but unknown when they will be delivered. Colin Purdon will chase this up.

Situation Update - CDU

CDU

All 17 beds within CDU are occupied. Currently one room down due to ongoing facilities work. The other 2 rooms are being used as a clean prep room and treatment room.

Prof Gibson reported on problems of patients not knowing where to go and that staff should be more informed regarding the patient pathway. An operational meeting and discussion with SCN will take place out with this meeting regarding this.

Prof Gibson raised her concerns that there are patients in CDU, RHC and Ward 4B QEUH and to cover both wards is very difficult to accommodate due to distance between them.

While carrying out work on a shower within CDU, RHC it has been reported by lead IPCN that behind the shower panel the gyprock panels are not water resistant and described it as "Weetabix" which crumbles when trying to reseal it. Dr Inkster raised her concerns regarding this and said there shouldn't be anything that isn't moisture resistant present within the shower area. Facilities will investigate.

Ward 6A Update

Chilled beam and vent cleaning has been complete. The area will be ready for a HPV clean on Monday 28th January evening once all shower work is complete and a deep clean has been carried out. Air sampling will take place on Wednesday without the HEPA filters. More air sampling will be carried out on Thursday after the HEPA filters have been switched on for 24 hours. Facilities have requested that someone from IPCT should carry out a walk round before the HPV clean is carried out.

Ward 4C Haematology

There was no reported issues at the moment. One the paediatric patients has been moved to Aberdeen as expected.

Control measures

Any colleagues who have concerns with pigeon mess around the hospital should raise with Colin Purdon and Karen Connelly where they will address these issues.

Facilities are currently trapping pigeons and releasing them away from the hospital site over the next 6 weeks.

Dr Inkster informed the group of a courtyard which is situated beside a corridor know as Gruffalo corridor. Within this courtyard it holds heat exchangers which is contaminated with bird faeces. Investigating whether patient have been in this area, child yes, adult may have been along the corridor but not confirmed. Colin Purdon informed the group that this area is getting cleaned right now. Dr Inkster will be adding this to her hypothesis and will carry out some more investigation into this. She also noted bird faeces on the ground and evidence of ingress at the door on smoke testing . Facilities will investigate this further and check door seals in area.

Relocating patients from Ward 1A into 2 4 bedded areas (Room A & B) in Ward 2B, RHC was discussed. The 8 bedded area within Ward 2B will be ready by Monday but Dr Inkster raised her concerns about the recent negative pressure results she has received which indicated that the rooms are sitting at a slightly negative pressure but could fluctuate between negative and positive. Dr Inkster said HEPA filters will be needed with the 2 four bedded bays. Dr Inkster said that Ward 1A is safer for haematology/oncology patients due to ongoing ventilation issues. Dr Inkster has requested that the company involved in the ventilation could come back in and see if they can rebalance the pressures.

HSE carried out a visit to the plant room this morning where we expect their feedback later on this afternoon.

Microbiology reports

There was a news article stating that Microbiology only detected this organism in January, but Dr Inkster insisted that everything was carried out in a timely fashion with no concerns regarding the turnaround time of the specimens.

Numerous labs have been in contact asking for samples of the Cryptococcus. Dr Inkster said that all samples will be retained by our own labs and only the fiscal office will be allowed access to the samples. Dr Inkster has contact the lab down in Bristol who are carrying out typing of the samples and informed them of this as well.

HIAT

The group agreed a HIAT score at RED

Severity of Illness - Moderate
Impact on Services - Moderate
Risk of transmission - Minor
Public Anxiety - Major

Public Communication

[REDACTED]

[REDACTED]

Wider exposure of the positivity coming to this hospital through other media routes like twitter etc has been requested. Statements have been made that involve the vast majority of the population.

Patient Communication

Prof Gibson raised her concerns about the Facebook page which was originally meant for peer support for families but is now being used to condemn the ward. Prof Gibson also knows that one of the members of the Facebook page has invited a journalist to join the group. Questions surrounding if we could close this page down have been raised but this would be down to Facebook themselves. [REDACTED]

[REDACTED] An alternative Facebook page where we can control what is posted on the site could be set up. This way we could feed into positive items so that patients would not fear coming into the ward. Dr Macdonald raised concerns with regards closing the facebook group. Dr Inkster agreed stating that its primary function was as a support group

Staff Communication

Reiterate to staff communications making sure that the vast majority is unaffected.

HPS

Sandra Devine will update HPS today.

AOCB

Sandra Devine told the group that going forward the IPCT will monitor the environment of haematology/oncology areas during enhanced supervision and will be looking at showers areas as well.

Paul Gray Director General for NHS Scotland is visiting the QEUH and RHC tomorrow as part of an already planned visit.

Colin Purdon has been contacted by a member of facilities carrying out the vent cleaning and believe has been put at risk. Colin Purdon should contact Occupational Health regarding any concerns raised.

Date of next meeting

It was agreed that the next meeting will be held on Friday 25th January at 1200 in Seminar Room, Level 9, QEUH

Action list and allocated responsibility

Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply.

Facilities

Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.

Facilities

Patient letters informing them of the situation and giving them a contact number for any queries is to be sent out to all inpatients and patients not currently receiving treatment on the ward.

J Redfern

Lynn Pritchard is meeting with Kerr Clarkson to go over the issues identified within Ward 4C Haematology.

**L Pritchard
Facilities**

All the work within Ward 6A including cleaning the vents/chilled beams, shower works, completion of room 10/11 and HPV clean is on track to be completed by Thursday 31st January.

Facilities

Colin Purdon will chase up when the next delivery of HEPA filters is going to be made.

Facilities

Facilities are to confirm that the gyprock panels behind the shower panels are water resistant.

Facilities

IPCT to carry out walk round of ward 6A with Facilities once all the work is complete

**IPCT/
Facilities**

Cleaning of the courtyard off the Gruffalo corridor

Facilities

Facilities to contact the ventilation experts to see if they can rebalance the pressure within Ward 2B, RHC

Facilities

Cryptococcus Incident Management Meeting

Friday 25th January 2019

Present: Dr Teresa Inkster (chair), Elaine Burt, Stephen Bowhay, Sandra Devine, Lynn Pritchard, Myra Campbell, Karen Connelly, Angela Johnston, Pamela Joannidis, Ian Powrie, Tom Steele, Jen Rodgers, Jamie Redfern, John Mallon, Dr Iain Kennedy, Dr Elizabeth Chalmers, Calum MacLeod (minutes)

Teleconference: Mark Dell

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Dr John Hood, Consultant Microbiologist from Glasgow Royal Infirmary will be assisting Dr Inkster with infection control issues.

Minutes from the previous IMT meeting 24th January 2019

The minutes from Thursday's IMT were disseminated to the group. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod by close of play Monday 28th January.

Update on Actions

1. Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply.
2. Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.
3. All in patient letters containing information about the current situation are being sent out today. Another letter for patients who are not currently receiving treatment will be sent out at the start of next week.
4. Lynn Pritchard has carried out a walk round with Kerr Clarkson of Ward 4C Haematology.
5. All the work within Ward 6A including air sampling is due to be complete by Thursday 31st January.
6. Delivery of HEPA filters will be due Wednesday 30th January.
7. Facilities have confirmed that the replacement gyprock that is being put behind showers is water resistant.
8. Facilities and Susie Dodds are to carry out a walk round on Monday 28th January.
9. Cleaning of the courtyard off the Gruffalo corridor has been completed.

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Actions

10. Facilities informed the group that the ventilation experts cannot rebalance the pressures within Ward 2B without carrying out major work to the plant rooms/air ducts. Dr Inkster informed the group no to use this area until the ventilation work has been completed.

Situation Update

CDU

Jen Rodgers has requested the drain within the CDU clean prep room to be cleaned as staff are having to use alcohol gel after using the sink. Kerr from facilities is co-ordinating this drain clean.

Jen Rodgers informed the group of an incident regarding a RCN union rep which has been escalated and requested a formal apology from. Also notified to Mags Macguire.

Any issues regarding new admissions into CDU is an operational matter. This IMT is happy with the arrangements agreed from this IMT.

Ward 6A Update

Dr Inkster and Dr Hood did a walk round of ward 6A. They met the contractor in charge of the shower work who informed her that 80% of the showers were affected by mould. The contractor said that if there is a break in the shower sealant then the gyprock behind the sealant was not water resistant, but informed them this has been rectified. As an extra precaution the water seals have been raised further up the wall from the flooring. The whole ward will be finished by Monday 28th January where a member of the IPCT will carry out a walk round with estates before an HPV clean is carried out.

Ward 4C Haematology

Lynn Pritchard fed back from her walk round of Ward 6A with facilities. A few rooms have been identified where there is minor cracks in the shower seals that can be rectified by heat sealing them. Dr Inkster agreed that this minor repair can be carried out within the shower rooms while the patient is present as long as the shower room is sealed off and only minor heat seals are carried out. The contractor has agreed to contact Lynn Pritchard if he finds any rooms that require more work.

Dr Inkster has requested what shower fixtures that have been carried out in Ward 6A should be shadowed to Ward 4B/C Haematology as they are both high risk patients.

Ward 2A Update

It was agreed that the due to CDU being used as the new Haematology/oncology ward, CDU will be moved into Ward 2A. Pamela Joannidis and the paediatric IPCT have written an Aid Memoire outlining what the use of every rooms within Ward 2A should be.

The 4 BMT rooms within Ward 2A should not be used by anyone apart from emergency haematology/oncology patients that require rooms and CDU is full. These rooms will have posters on the door asking them not to be used.

The ward has 4 PPVL rooms (22-25) which can be used for certain patient admissions with infections and will be identified by staff placing a large R poster on the door.

Communication will need to be sent to Stephen Bowhay who requires a timeline of when this ward will be opening so he can organise pharmaceutical supplies for the area.

Microbiology reports

Dr Inkster received an email from labs in Ayrshire who were originally sent samples of pigeon faeces from the plant room. They have successfully retested the faeces and found certain types of yeast including *Cryptococcus albidus* found on air sampling. Dr Inkster has requested these samples to be sent down to Bristol to see if typing can be carried out.

John Mallon is to investigate if there are any preliminary results from the air testing carried out over the weekend.

Some of the samples being taken in level 7 are being reported back to Kate Hamilton Lead IPCN of North Glasgow. John Mallon will investigate.

Hypothesis update

Dr Inkster is currently working on her theory regarding the plant rooms and is also trying to answer some questions from Peter Hoffman (Public Health England)

The courtyard within the vicinity of the Gruffalo corridor has been cleaned up by estates but more investigation into this is underway. Estates are currently checking the integrity of the doors that lead out to the courtyard to see if they are intact.

The helipad in which numerous birds roost it has been investigated. About 1 helicopter lands on the pad per day. The metal ramp that staff use to transport patients down into the hospital is cleaned every two weeks. There is a theory that pigeon faeces can contaminate the patient trolley wheels and can be transported with the patient into the hospital. Also with the down force of the helicopter aerolisation of pigeon faeces can occur and the plant rooms for the QEUH are situated 2 floors below it.

HIAT

The group agreed a HIAT score of AMBER after agreeing the

Severity of Illness - Minor
Impact on Services - Moderate
Risk of transmission - Minor
Public Anxiety - Moderate

Public Communication

Mark Dell said the media have been focussing on the first minister questions and enquiring about rate of infections and backlog of maintenance/repairs to the QEUH. There has been fewer media enquiries compared to earlier this week.

Regarding what action can be taken about the Facebook page Mark is meeting up with colleagues this afternoon to discuss.

Staff Communication

Rona Wall from Occupational Health has been in contact with Dr Inkster looking for some guidance for staff due to increase of staff getting in contact about respiratory symptoms and rashes which they think is in relation to this incident. Dr Inkster stated that Occupational Health and herself continue to experience queries from staff despite the core brief information. Iain Kennedy will be taking forward with Communications.

HPS

Press office are to send onto HPS the update on that staff received yesterday.

AOCB

Managed to get additional 4 HEPA filters for Ward 4C Renal transplant area. Delivery coming next Wednesday of another 13 HEPA filters.

Dr Inkster confirmed that the earliest in which patients can be moved into Ward 6A would be Wednesday 13th February. This gives time in case the first air samples come back positive then another full week for further air sampling can be carried out.

Dr Inkster confirmed that when Ward 6A reopens there should be a HEPA filter in every patient room with an additional 7 HEPA filters placed within the corridor.

Date of next meeting

It was agreed that the next meeting will be held on Monday 28th January at 1100 in Facilities Meeting Room 5, Ground Floor, Lab Building, QEUH

Action list and allocated responsibility

Facilities and Susie Dodds are to carry out a walk round on Monday 28th January.

**S Dodd /
Facilities**

All the work within Ward 6A including air sampling is due to be complete by Thursday 31st January.

Facilities

Delivery of HEPA filters will be due Wednesday 30th January.

Facilities

John Mallon is to investigate if there is any preliminary results from the air testing carried out over the weekend.

**John
Mallon**

John Mallon is to investigate why some of the Level 7 air sampling results are being sent to Kate Hamilton Lead IPCN for North Glasgow instead of Susie Dodds and Lynn Pritchard.

**John
Mallon**

Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply.

Facilities

Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.

Facilities

Cryptococcus Incident Management Meeting

Monday 28th January 2019

Present: Dr Teresa Inkster (chair), Myra Campbell, Lynn Pritchard, Sandra Devine, Elaine Burt, John Mallon, Karen Connelly, Alan Gallacher, Colin Purdon, Dr Iain Kennedy, Susie Dodds, Jenn Rodgers, Jamie Redfern, Dr Iain MacDonald, Stephen Bowhay, Dr Dermot Murphy, Calum MacLeod (minutes)

Teleconference: Mark Dell

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 25th January 2019

The minutes from Friday's IMT were disseminated to the group. If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

A walk round of Ward 6A by Facilities and Susie Dodds is happening later today 28th January.

All the work within Ward 6A is on schedule to be finished by lunchtime today 28th January out.

Delivery of 13 HEPA filters will take place on Wednesday 30th January.

Results from recent air testing was shared with group.

Level 7 air sampling results are being sent to the wrong IPC sector due to an issues with their reporting system called ICNet. It is currently being investigated.

CDU - Situation Update

Staff have requested work to be carried out to holes within the walls within CDU as there could be an issue with the dust coming from them. All bathroom sinks and drains have been cleaned within the Ward.

Room 3 is currently being used as a storage area which has a HEPA filter situated inside it.

The day care facility has been moved into 7 rooms within Ward 1A, RHC. Currently working through pathways for patients.

Dr Murphy said the current work environment is very challenging for staff and will not be a long term fix as patients are currently being kept in 3 separate areas.

A request has been made regarding patients affected by the closure to new admissions or restrictions to chemotherapy patients can be resumed.

Ward 6A, QEUH Update

Work is due to be complete this afternoon and Susie Dodds will be carrying out a walk round of the ward to see if there is anything else that may require some attention before cleaning can commence.

Ward 4C Haematology, QEUH Update

The adult IPCT are currently awaiting on facilities to contact them regarding a timeline of when will be complete within ward 4C Haematology.

Ward 4B BMT, QEUH Update

Currently got 4 patients within the ward, no issues reported.

Ward 2A, RHC Update

CDU is being run as the same bed compliment as it was before it moved into ward 2A.

Sandra Devine informed the group that there was a CNO inquiry regarding if there was any oncology/haematology patients being treated within that area. She advised that only in an extreme circumstances staff would use the 4 BMT rooms which are currently not being used for patients.

Microbiology reports

Getting air sampling results back using 7th floor as indicator ward for Cryptococcus. Numerous rooms and corridor showed a very light growth of Cryptococcus from last week's tests. More recent tests samples, after 48 hours have shown no growth of Cryptococcus, but full results should be available at the end of the week.

The Ayrshire lab which managed to grow Cryptococcus albidus from bird faces samples from the plant room have accidentally thrown out the original samples. Dr Inkster has requested a further 2 pots of bird faces to be sent to the Ayrshire lab.

Hypothesis update

The helipad was visited and it was evident that it would be challenging to clean away the heavily infestation of faecal matter on it. Trolleys that enter the hospital from the helipad could have bird faces on the wheels. Dr Inkster said it was very unlikely that this could be the source of the Cryptococcus within the QEUH as oncology/haematology patients very rarely arrive by helicopter.

Facilities have inquired to pest control about obtaining TAC Mats that could clean the wheels of the trolley when entering the building. They have also asked them to look into anything that could deter pigeons from roosting on the helipad and its surrounding area.

Dr Inkster informed the group that a separate group is being set up to look more into the multiple Hypothesis that have arisen from this IMT. The group will consist of Dr John Hood, Dr Christine Peters, Peter Hoffman from Public Health England and estates representation. The group will report back into this IMT.

A feasibility study into upgrading Ward 4C Haematology & Renal ventilation is being undertaken. Both areas are being included in the study as they share the same ventilation and area.

HIAT

The group agreed a HIAT score of RED after agreeing the

Severity of Illness - Minor
Impact on Services - Moderate
Risk of transmission - Minor
Public Anxiety - Major

Public Communication

Mark Dell from the press office informed the group that the Evening Times newspaper reported that patients are to only drink bottled water. They have been asked if the QEUH has been stock piling bottled water. Karen Connelly reported that we did stock pile bottled water but this was for the contingency plan for the installation of the chlorine dioxide water treatment. Facilities still get requests for bottled water but not reported any higher activity than usual. Water coolers have been taken away from areas within the RHC and replaced which could also lead to this article.

In relation to the Facebook page originally set up as a peer support for parents but is now being used to disparage Ward 2A. A journalist from the Sun newspaper now has access to the closed group page. If we requested to join the existing page then it could be seen as a way on censorship to the page. It was suggested that we could set up our own Facebook page and use the model from the teenage Cancer Trust page which is already controlled by NHS GG&C.

Jamie Redfern has received a request from the NSD if they could receive GG&C press statements when they are released. Jamie will send contact information onto Mark Dell so they can be included. They have also asked if they could be included in the distribution of the IMT minutes by Dr Inkster will need to clear this with Dr Armstrong.

Patient/Parent Communications

All haematology/oncology inpatients have received letters updating them on the current situation. Letters are also being sent to haematology/oncology patients who attend Day Care/Outpatient clinics and who are on suspended treatment. Jamie Redfern will receive a daily update until everyone has been contacted and with regards to what queries parents have contacted them about.

The group have been informed that journalists have been going round to patients parents houses asking for interviews. The group said there is nothing we can do to stop the press from doing this. It was agreed that a communication for parents to advise journalists to contact the press office if they come around to their doors.

Dr Inkster has received a request for more information regarding this incident from the deceased adult patients family.

Staff Communication

Mark Dell will contact Dr Kennedy regarding a hospital level brief that will be sent out to all staff.

HPS

Sandra Devine will send HIIORT once approved by Dr Inkster.

AOCB

Dr Inkster informed the group that an imminent HEI inspection will be carried out at the QEUH/RHC campus, with a focus on these particular incidents.

There has been no feedback from the HSE visit last week.

At the moment there has been no patient complaints regarding the use of HEPA filters within the wards. The HEPA filters are due filter changes every 12-18 months and do not require to be used on an intermediate basis. They can be used 24/7 as similar HEPA filters have been used on long term construction sites. There is also a warning light on each HEPA filter that flashes if they is anything wrong with it. Some maintenance guidelines are to be drawn u with are in line with the manufacturers guidelines surrounding the HEPA filters.

If a patient is well enough to be boarded out with the haematology ward then they do no require a HEPA filter within their room.

Date of next meeting

It was agreed that the next meeting will be held on Wednesday 30th January at 1200 in Stroke Seminar Room, Level 1, QEUH

Action list and allocated responsibility

All the work within Ward 6A is on schedule to be finished by lunchtime today 28th January.

Facilities

Delivery of 13 HEPA filters will take place on Wednesday 30th January.

Facilities

Dr Inkster has requested a further 2 pots of bird faeces from the plant room to be sent to the Ayrshire lab.

**T Inkster /
Facilities**

Dr Inkster will ask Dr Armstrong if the NSD can be included in the distribution for IMT minutes.

T Inkster

Mark Dell will contact Dr Kennedy regarding a hospital level brief that will be sent out to all staff.

**M Dell /
I Kennedy**

It was suggested that we could set up our own Facebook page and use the model from the Teenage Cancer Trust page which is already controlled by NHS GG&C.

Mark Dell

Facilities are to draw up maintenance guidelines for the HEPA filters which are in line with the manufacturers guidelines.

Facilities

Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply.

Facilities

Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.

Facilities

Cryptococcus Incident Management Meeting

Wednesday 30th January 2019

Present: Dr Teresa Inkster (chair), Tom Steele, Karen Connelly, Colin Purdon, Susie Dodd, Sharon Carlton, Lynn Pritchard, Myra Campbell, Tom Walsh, Elaine Burt, John Mallon, Jamie Redfern, Dr Iain MacDonald, Prof Brenda Gibson, Dr Iain Kennedy, Melanie McColgan, Calum MacLeod (minutes)

Teleconference: Mark Dell

Apologies: Stephen Bowhay

Actions

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 28th January 2019

The minutes from Monday's IMT were disseminated to the group. The following amendments were accepted:

Page 2, Hypothesis update, 1st line should read: it was evident that it would be challenging to clean away heavily infestation of faecal matter.

If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

All the work within Ward 6A has been completed.

Delivery of 13 HEPA filters has not taken place. Facilities will chase up with the courier regarding date/time of delivery.

Samples from the courtyard outside RHC imaging have been obtained and John Mallon will be sending these to Ayrshire today. It was agreed that further pigeon faecal samples from the Helipad should be sent onto Ayrshire. John Mallon will co-ordinate this with facilities.

Dr Armstrong has requested that NSD should speak to her directly regarding themselves being included in the distribution of the IMT minutes.

Mark Dell will contact Dr Kennedy regarding a hospital level brief about occupational health that will be sent out to all staff.

It was suggested that we could set up our own Facebook page and use the model from the Teenage Cancer Trust page which is already controlled by NHS GG&C. ongoing

Facilities are drawing up maintenance guidelines for the HEPA filters which are in line with the manufacturers guidelines and will share with the IMT once complete.

Ward 6A, QEUH Update

HPV clean within Ward 6A was completed last night. John Mallon will carry out air sampling of the ward.

Once air sampling has been taken HEPA filters will be run for 24 hours then air sampling will be carried out again. A HEPA filter should be placed in each patient room another. Dr Inkster will check to see how many will be required for the corridor.

There are currently 26 HEPA filters throughout Ward 6A. Currently awaiting delivery 13 new units and have requested 30 more units which are currently being built. Myra Campbell said Ward 6A could have some of the HEPA filters currently in her ward. Myra will identify the HEPA filters that can be used, but will check with Dr Inkster before any are removed.

PICU

Any haematology patient should always be put into a PPVL room with HEPA filter.

Microbiology reports

Dr Inkster informed the group that previous air sampling results from the 21st December 2018 which were reported as having no Cryptococcus present did have Cryptococcus albidus present in PICU. Dr Inkster has spoken to an expert regarding this organism who confirmed it is found in vegetation present in pigeon gut. Dr Inkster informed the group this has major implications for the hypothesis as we have been focussing on the Level 12 plant room, but PICU gets its air supply from a different plant room. Subsequent air samples from PICU are showing negative samples so it is possible that the Cryptococcus has been diluted within the system.

Air samples were not taken from level 4 plant room as we were told there was no infestation of pigeon faeces. It was agreed that air sampling of this plant room (41) will be undertaken.

Hypothesis update

Karen Connelly will see if there is any data regarding wind patterns or downdrafts from helicopters when the building was being designed so that it can be passed along to the Hypothesis group.

Risk Management Control Measures

Dr Inkster will review all the air samples and get back to the group with regards to control measures.

Karen Connelly is looking into obtaining TAC Mat for trolleys to run over when re-entering the hospital after being out on the Helipad.

HIIAT

The group agreed a HIIAT score of RED after agreeing the

Severity of Illness - Minor
Impact on Services - Moderate
Risk of transmission - Minor
Public Anxiety - Major

Public Communication

[REDACTED]

The proposed new Facebook page for parents is being set up. The page will be a closed group where anyone who wants to join will have given access by the administrator of the page. Jamie Redfern will inform Mark Dell of a suggested membership for this Facebook page.

Patient/Parent Communications

[REDACTED]

2 letters have been sent out by Jane Grant to patients parents but this IMT or any Doctor who look after these patients did not see these before being sent out. Copies of these letters will be obtained and shown to the IMT for information. Any communication regarding this incident being sent out to patients/parents should come through this IMT.

It has been requested that someone form senior management/executive level should meet up with families regarding this incident.

Staff Communication

Mark Dell is to send out an email communication to staff outlining Occupational Health guidelines that Dr Inkster and Rona Wall wrote up.

HPS

Lynn Pritchard will send HIIORT once approved by Dr Inkster.

AOCB

Melanie McColgan suggested a joint Significant Clinical Incident (SCI) with regards to this. It was reiterated that the process for these SCI needs to be stringent.

Action list and allocated responsibility

Facilities to chase up delivery of the 13 HEPA filters which were due on Wednesday 30 th January but not arrived yet.	Facilities
John Mallon and Facilities will co-ordinate with each other to obtain pigeon faeces from the helipad to be sent to Ayrshire laboratory for testing.	J Mallon / Facilities
It was agreed that air sampling of plant room (41) which supplies PICU will be undertaken.	Facilities
Copies of the 2 letters sent to patients parents are to be obtained and shown to the IMT for information	J Redfern
Jamie Redfern will speak to Kevin Hill about setting up a meeting with families and a member of Senior/Executive management.	J Redfern
A hospital brief about staff contacting occupational health regarding this incident is to be sent out.	Press Office
Facebook page is currently being set up. Jamie Redfern is going to supply a list of members that would be suitable for this.	J Redfern / Press Office
Facilities are drawing up maintenance guidelines for the HEPA filters which are in line with the manufacturers guidelines and will share with the IMT once complete.	Facilities
Facilities are looking into TAC Mats (Anti- contamination Mats) for trolleys to go over when they re-enter the hospital after being out on the Helipad.	Facilities
Facilities are looking into possible filters for the air ducts that can stop Cryptococcus from entering the air supply.	Facilities
Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.	Facilities

Cryptococcus Incident Management Meeting

Monday 4th February 2019

Present: Dr Teresa Inkster (chair), Elaine Burt, Karen Connelly, Colin Purdon, Tom Steele, Lynn Pritchard, Susie Dodd, John Mallon, Prof Brenda Gibson, Stephen Bowhay, Dr Iain Kennedy, Sandra Devine, Myra Campbell, Jamie Redfern, Calum MacLeod (minutes)

Teleconference: Lorraine Dick

Apologies: Dr Ian MacDonald

Actions

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 30th January 2019

The minutes from the 30th January IMT were disseminated to the group. The following amendments were agreed:

Page 2, Microbiology Reports should read : Cryptococcus albidus preset in PICU corridor.

Discussion surrounding the wording of when the Cryptococcus albidus was discovered in PICU from Decembers test. It was initially not picked up in the preliminary results but was later reported positive on the 11th of January.

Dr Armstrong has requested to amend the minutes from the IMT held on the 20th of December 2018. Number 11 on the action list should read :Dr Inkster will speak to Dr Jennifer Armstrong to discuss duty of candour regarding communications about this incident..

If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

Delivery of 13 HEPA filters happened on Friday 1st February. They were taken to Ward 6A to cover every patient room and corridors.

Pigeon faeces samples have been obtained from the Helipad and sent onto the Ayrshire labs for testing.

Air sampling of plant room (41) which supplies PICU has been undertaken. Initial feedback from the 12 samples taken show there is a single yeast isolate on three of the plates.

Jamie Redfern will send out copies of the 2 letters sent to patients parents by Jane Grant, Chief Executive.

Kevin Hill will discuss with the executive team about setting up a meeting with patient families and a member of the executive group regarding this ongoing incident.

The hospital brief about staff contacting occupational health in relation to this incident is ready to be sent out to staff.

Facebook page is currently being set up that will have NHS staff control over who can join and what is put onto the page as they will be the administrators of the page.


Colin Purdon has sent Calum MacLeod maintenance guidelines for the HEPA filters which he will disseminate to the group.

A sample of a possible TAC mat will be arriving on Wednesday morning.

As soon as facilities get confirmation data that filters can be fitted into air ducts then they will target the air ducts which pose the highest risk first.

RHC Update

No issues reported through the safety huddle over the weekend/today. Operational issue regarding catering taking meals to the wrong CDU which is being dealt with.



Prof Gibson thinks this is no longer an operational issue but a safety issue regarding the environment for patients. Patients are being admitted to the RHC on a case by case basis. Dr Inkster informed Prof Gibson that the reason we moved patients out of Ward 6A was due to the mould found within patient shower areas. This has since been rectified and air testing is being carried out.

Ward 6A, QEUH Update

Early checks from the air sampling plates taken in Ward 6A two days ago are currently negative for any yeast growth and aspergillus growth.

Hypothesis update

The short life working group who will be discussing hypothesis of this IMT are meeting on Thursday afternoon.

Risk Management Control Measures

Doctors have requested a meeting to discuss long term prophylaxis for patients with Microbiology. Dr Inkster will get a name of a Microbiologist and Stephen Bowhay will find an Antimicrobial Pharmacist to assist as well.

HIAT

The group agreed a HIAT score of AMBER after agreeing the

Severity of Illness - minor
Impact on Services - moderate
Risk of transmission - minor
Public Anxiety - moderate

Prof Gibson raised her concerns that it should remain a score of RED. We have not received a new patient since the ward has moved out of Ward 6A, even though we are doing patients on a case by case basis.

Public Communication

Lorraine Dick from the press office informed the group that there had been no press inquiries regarding this incident today.

Mark Dell is progressing with the Facebook page. Lorraine Dick will get an update from Mark to email around the group.

Dr Kennedy informed the group that Public Health have received a number of requests from GG&C and Environmental Health regarding this incident. Environmental Health have requested a factual information sheet which Public Health have created and will send to Dr Inkster and communications department for comment.

Patient/Parent Communications

All patients who are currently in or had any haematology/oncology treatment in the last 52 weeks have received a letter. There was a discussion if we go beyond the 52 weeks but we did not want to cause unnecessary panic among people. Janice Hackett will circulate copies of the letters that were sent out patients. So far only one patient parent has called.

HPS/Government

Scottish government have requested that any HIORTs regarding this incident should be sent directly to themselves rather than via HPS.

AOCB

Discussion regarding when Ward 6A can be reopened will rest on what the air results carried out on Wednesday and Friday last week grow. If initial tests come back negative then possibility ward could be ready for re-opening on Monday 11th February.

The next IMT is being held on Friday 8th February at 12:00 in the clock tower Medical Block. Entry to the building can be obtained through the white door at the at the back of the multi story car park.

Action list and allocated responsibility

Jamie Redfern will send out copies of the 2 letters sent to patients parents by Jane Grant, Chief Executive.

J Redfern

Kevin Hill will discuss with the executive team about setting up a meeting with patient families and a member of the executive group regarding this ongoing incident.

K Hill

Facebook page is currently being set up that will have NHS staff control over who can join and what is put onto the page as they will be the administrators of the page.

M Dell

A sample of a possible TAC mat will be arriving on Wednesday morning.

Facilities

Dr Inkster will get a name of a Microbiologist and Stephen Bowhay will find an Antimicrobial Pharmacist to assist in the long term antimicrobial prophylaxis of patients.

**I Inkster
S Bowhay**

Public Health will send Dr Inkster and the communications department a copy of the factual information sheet they intend to use.

I Kennedy

As soon as facilities get confirmation data that filters can be fitted into air ducts then they will target the air ducts which pose the highest risk first.

Facilities

Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.

Facilities

Cryptococcus Incident Management Meeting

Friday 8th February 2019

Present: Dr Teresa Inkster (chair), Sandra Devine, Pamela Joannidis, Jamie Redfern, Mary Ann Kane, Colin Purdon, Stephen Bowhay, Elaine Burt, Susie Dodd, Myra Campbell, Lynn Pritchard, Prof Brenda Gibson, Dr Iain Kennedy, Karen Connelly, Tom Steele, Debbie Harrison, John Mallon, Angela Howat, Calum MacLeod (minutes)

Teleconference: Mark Dell

Actions

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 4th February 2019

The minutes from the 4th February IMT were disseminated to the group. The following amendments were agreed:

Page 3, Public Health, 1st line should read: Public Health have received a number of requests from GG&C and Environmental Health regarding this incident.

If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

Jamie Redfern will send onto Calum Macleod to disseminate to the group the copies of the 2 letters sent to patients parents by Jane Grant, Chief Executive.

Facebook page is currently being set up that will have NHS staff control over who can join and what is put onto the page as they will be the administrators of the page. Jamie Redfern and Jenn Rodgers are to give send Mark Dell their personal account they wish to use regarding setting up the parent/patient Facebook page for Haematology/Oncology patients.

Facilities will order some TAC mats for trolleys to go over when entering the hospital from the helipad.

The discussion regarding long term prophylaxis for patients will be discussed with clinicians and Dr Alison Balfour from Microbiology and Lee Stewart/Kate Stock from pharmacy.

QEUH Update

Initial air sampling results from post intervention of Ward 6A look really good. Most rooms are showing zero growth with only a few showing some Penicillium growth. No Cryptococcus or yeast has been grown from the air samples taken post intervention. From Dr Inkster perspective safe to move the children back.

Domestics will carry out a further clean of the ward over the weekend and Susie Dodds will carry out a final walk round of the ward.

The IMT were in agreement that Ward 6A is now safe for new admissions to come back into the ward.

The scheduling of patients being moved back into the Ward 6A will be agreed at the Executive meeting. Clinicians & nursing staff will be fully engaged when the move has been finalised early next week.

Myra Campbell reported no issues within Ward 4B BMT and Ward 4C Haematology/oncology.

Hypothesis update

The hypothesis sub group meeting has been delayed till next week to give Dr John Hood time to look over the vast amount of data regarding the ventilation.

Risk Management Control Measures

HEPA filters are to stay within each patient room and ward corridors until solution for ward 2A/2B is obtained.

Microbiology would like to have guidelines on prophylaxis so that clinicians can follow and to limit any confusion. Dr Alison Balfour from Microbiology and Lee Stewart/Kate Stock from pharmacy will meet with clinicians to agree this.

Dr Inkster will speak to Dr Scott Morris to agree prophylaxis for Renal patients.

HIAT

The group agreed a HIAT score of AMBER after agreeing the

Severity of Illness – Minor
Impact on Services - Moderate
Risk of transmission - Minor
Public Anxiety – Moderate

Public Communication

Mark Dell will send out the agreed Occupational health advice to staff.

Patient/Parent Communications

Discussion on how parents/patients will be informed about the move back to ward 6A was discussed. It was agreed that we need to give them confidence that it is the right decision and they are moving back into a safe clinical environment.

This communication should include:

- Emphasise that the environment is safe to move back in and has been signed off by this IMT and Estates
- Air sampling results are at optimal levels
- HEPA filters will remain as a control measure
- Prophylaxis for a select group of patients will remain
- Inform them of the new Facebook page being set up

HPS/Government

Sandra Devine will inform HPS and the Government today.

Assurances Moving Forward

Plant room audits are underway. Air sampling should be undertaken at the end of the day after clean areas within the wards have been carried out to prevent heavily contaminated instruments

HFS guidance regarding bird droppings has been sent out for comment.

Initial programme of pigeon removal takes about 6 weeks where they expect to see about an 80% reduction in pigeon numbers.

TAC Mats for the helipad will be ordered for trolleys to move over when re-entering the building after being on the helipad.

Regular air sampling will be carried out in Ward 6A every fortnight.

HEPA filter maintenance has been circulated. Colin Purdon informed the group that the 18 months for each filter replacement is mentioned in a separate document. Staff are using Actichlor to clean the HEPA filters when moved between patients

Educate nursing and estates staff about water damage and what to look out for. A draft water damage document has been drafted for staff to follow.

Educating staff in high risk areas (Ward 6A, 4B, 4C QEUH) to notify estates about any issues regarding showers.

Vent cleaning for high risk areas (Ward 6A, 4B, 4C QEUH) is to be changed from yearly to every 3 months.

AOCB

Interim reports from the pigeon faces sent to Ayrshire labs are showing yeast growth. Dr Inkster will forward results onto Tom Steele.

Action list and allocated responsibility

Jamie Redfern will send onto Calum Macleod to disseminate to the group the copies of the 2 letters sent to patients parents by Jane Grant, Chief Executive.	J Redfern
Jamie Redfern to follow up with Kevin Hill about setting up a meeting with patient families and a member of the executive group regarding this ongoing incident.	J Redfern
Jamie Redfern is to send Mark Dell his account preferences so that the Facebook page can be set up.	J Redfern
Mark Dell will send out the agreed Occupational health advice to staff.	M Dell
Mark Dell is to develop a communication for parents/patients to inform them and reassure them about the move back to Ward 6A.	M Dell
TAC Mats for the helipad will be ordered for trolleys to move over when re-entering the building after being on the helipad.	Facilities
The discussion regarding long term prophylaxis for patients will be discussed with clinicians and Dr Alison Balfour from Microbiology and Lee Stewart/Kate Stock from pharmacy.	Pharmacy / Micro
Dr Inkster will send Tom Steele interim reports from the pigeon faeces sent to Ayrshire labs.	T Inkster
Facilities to get confirmation data that filters can be fitted into air ducts then they will target the air ducts which pose the highest risk first.	Facilities
Dr Inkster has requested all the vegetation can be removed from the flat roof outside Ward 4C Haematology and concreted over if possible.	Facilities

**Serratia marcescens Incident Management Meeting
NICU Classrooms, NICU
Friday 1st March 2019**

Present: Dr Teresa Inkster (chair), Mark Dell, Darryl Connor, Sharon Johnstone, David MacDonald, Colin Purdon, Pamela Joannidis, Lynne Kennea, Patricia Friel, Morag Liddell, Dr Jonathan Coutts, Dr Anne Marie Heuchan, Jenn Rodgers, Angela Johnson, Calum MacLeod (minutes)

Teleconference: Susie Dodds, Jamie Redfern

Actions

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 25th February 2019

The minutes from the 25th February IMT were disseminated to the group.

If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

Update on actions are in the table at the bottom of the minutes.

Patient Update

Two new cases since Monday 25th February 2019. 11 in total , all colonised

Currently 11 cases have been attributed to the Neonatal unit, RHC. 1 patient is currently in SCBU, 6 patients are in NICU in the same cohorted area and 1 patient has been discharged home.

There is a possible 12th case regarding a Cystic Fibrosis patient. This is currently being classed as Healthcare Associated Infection until typing results have come back.

No concerns from Clinicians regarding any of the affected patients.

Investigations

Typing results from 4 of the cases have come back the same while another 2 are unique. Awaiting typing results from other patient samples.

Sampling of drain's has been carried out where positive Serratia results have come back. This is the first time Serratia has been found in the environment. The sinks within NICU are the same trough sinks as in ward 2A, RHC. Susie Dodds informed the group that when specimens were being taken there was a build up of brown sludge in the drain traps.

Control Measures

All rooms will have their walls washed, vents cleaned, pendants cleaned and drains cleaned.

Dr Inkster has requested regular drain cleaning to be carried out for all rooms within the neonatal unit. Mechanical cleaning which involves taking out the drain traps will be undertaken. Regular chemical cleaning of the drains will be undertaken by the facilities team. The neonatal unit within the Maternity building do not have their water supply chemically dosed with chlorine dioxide like within the QEUH and RHC.

Morag Lidell informed the group that rooms within NICU/SCBU have undergone their clean and are ready for HPV cleaning to commence. Kerr Clarkson who is organising the HPV cleans over the weekend will be asked to send daily updates on what areas have been HPV cleaned and where still requires a clean to Jamie Redfern/Jenn Rodgers & the PRM.

Dr Inkster informed the group that only clinical rooms will be HPV cleaned

Advice has been sent out regarding the reduction of traffic of staff within NICU.

Staff have been reminded to cover the linen trolleys not in use and new covers for the trolleys have been ordered.

Any spare equipment will be moved to Ward 2B, RHC. Morag Lidell has requested facilities give certain members of her staff access to ward 2B to enable them to store this equipment. Morag Lidell will send Colin Purdon a list of names so that their ID badges can be added onto the access list to Ward 2B.

Portable screens have been added onto the daily bed space checklist for cleaning.

The Infection Prevention & Control Team (IPCT) are carrying out enhanced supervision of the Neonatal unit on a weekly basis where they will be identifying any staff practice issues, cleaning issues of the environment/equipment. So far this week practice has been very good, however there were some issues with floor cleaning which has since been rectified.

HIIAT

The group agreed a HIIAT score of GREEN after agreeing the

Severity of Illness – Minor

Impact on Services – Minor

Risk of transmission - Moderate

Public Anxiety – Minor

Patient/Parent Communications

Some basic information regarding the upcoming HPV clean and what it entails has been put together and will be distributed to parents of patients.

Information regarding Serratia has been given to all parents of patients concerned.

Media

Mark Dell informed the group that there has been media inquiries to date regarding this incident at NICU, RHC. Dr Inkster has requested Mark to draft a statement in case it is required in the near future.

AOCB

The PRM site think that different information is being told across the different sites. Pamela Joannidis informed the group that everyone within IPC work from the same manual. The Lead IPC nurses meet on a weekly basis so there is no discrepancies in practice throughout the different hospital sites.

	Action	Responsible Person	Status
1	Arrange follow up meeting to discuss neonatal screening across the board	Jamie Redfern	Ongoing
2	A regular vent cleaning schedule for all vents is to be compiled.	Colin Purdon	Ongoing
3	A regular drain cleaning schedule of all drains within the Neonatal unit is to be compiled.	Colin Purdon	Ongoing
4	Morag Lidell is to send Colin Purdon a list of names who require access to Ward 2B, RHC so that equipment can be stored there.	Morag Lidell	Ongoing
5	Updates on the HPV cleans within the Neonatal Unit over the weekend are to be sent to Jenn Rodgers/Jamie Redfern & PRM.	Colin Purdon/Kerr Clarkson	Ongoing
6	Information leaflets for parent's regarding the upcoming HPV cleans and what they entail are to be distributed to parents.	Jenn Rodgers	Ongoing
7	Mark Dell is to draft a media statement in case it is required over the next few days.	Mark Dell	Ongoing
8	Angela Johnson has contacted the manufacturers of the incubators and they have agreed to provide posters of cleaning guidance for staff to follow.	Angela Johnson	Awaiting on posters
9	David MacDonald has reviewed the domestic provision of the unit. The back stairwell will be washed on a weekly basis.	David MacDonald	Complete
10	Cleaning of portable bed screens is being carried out and they have been included onto the daily cleaning bed space checklist.	Morag Lidell	Complete
11	Enhanced supervision sessions of NICU/SCBU have been introduced on a weekly basis	Susie Dodd	Complete
12	Susie Dodds is to include some additional Clinicians into correspondence regarding this incidence.	Susie Dodd	Complete
13	Hand hygiene sessions are being carried out by Stefan Morton next week (wb 04/03/19) on Wednesday and Friday	Susie Dodd	Complete
14	Drain & Environmental sampling of the Neonatal Unit	Susie Dodd	Complete

**Serratia marcescens Incident Management Meeting
NICU Classrooms, NICU
Thursday 14th March 2019**

Present: Dr Teresa Inkster (chair), Sharon Johnstone, Angela Johnson, Lynne Kennea, Morag Liddell, Jamie Redfern, Mark Dell, Dr Anne Marie Heuchan, Dr Neil Patel, Calum MacLeod (minutes)

Introductions & Confidentiality

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes from the previous IMT meeting 1st March 2019

The minutes from the 1st March IMT were disseminated to the group with no amendments requested.

If anyone has any comments/queries regarding the minutes can you please contact Dr Inkster and Calum Macleod.

Update on Actions

Please refer to table at the bottom of the minutes on Page 4&5.

Patient Update

3 new cases since the last IMT meeting on 1st March but all were acquired before all control measures were put in place. This brings the total number of cases to 14.

Of the 14 patients, 9 of them remain inpatients across 2 floors. They are currently being accommodated in 4 bedded cohort areas within SCBU and NICU, with the 9th patient currently in a SSR.

None of the patients are giving any cause for concern with regards to their *Serratia marcescens*.

Investigations

To date 5 patients samples have come back as *Serratia marcescens* strain 4. 2 patients have a unique strain and the other samples are currently awaiting typing results.

Samples of 17 sink drains have been taken, of which 15 of them grew *Serratia*. Some of these are Strain 4. Dr Inkster believes this could be a possible source where a retrograde biofilm creep is occurring within the positive drains after staff are washing their hands.

The other possible source of the organism could be from the patients themselves into the drains

Actions

Commented [J1]: Acquired before completion of HPV treatment

Commented [J2]: Nursed in a 6 bedded bay due to clinical condition

Control Measures

Due to the retrograde biofilm creep Dr Inkster has requested that after staff have performed hand hygiene they are to use alcohol rub afterwards as well. This should be undertaken until all the drains within the Neonatal unit have been replaced.

Dr Inkster will speak to Colin Purdon from estates regarding a timeline for when all the drains will be replaced as there is currently not enough spare drain parts to replace them all. Once all the drains have been replaced then a drain cleaning regime should be set in place by Estates.

Dr Inkster is going to enquire with Estates if there is a possible different type of trough sink that can be used as there has been numerous problems with the existing trough sinks throughout the hospital regarding their drainage.

During the drain replacements estates found a hardened sand like substance within some of the drain traps. Dr Inkster has requested that samples of this substance should be collected and sent to a specialist lab where they can analyse this.

Morag Liddell is to remind staff not to dispose of anything down the hand hygiene sinks and should be used for washing hands only.

Dr Inkster has requested that the vents with the neonatal unit should be cleaned every 3 months as apposed to yearly as there is evidence of build up within the vents.

Dr Inkster is currently trying to make a proposal for HPV cleans to be regularly carried out within high level areas within the QEUH/RHC campus. It was suggested that an HPV clean should be carried out within the Neonatal unit every 6 months. Along with this wall washing will also be carried out every 6 months in preparation for an HPV clean. There is already a HPV cleaning team on site who work within the Cystic Fibrosis service Monday – Friday who could possibly facilitate this. Dr Inkster and Jamie Redfern will take this forward to see if rooms can be HPV cleaned every 6 months.

Jamie Redfern is to email out to Clinical Directors/Team managers about adhering to uniform policy, hand hygiene and limiting large groups of staff visiting high risk areas.

HIIAT

The group agreed a HIIAT score of GREEN after agreeing the

Severity of Illness – Minor

Impact on Services – Minor

Risk of transmission - Moderate

Public Anxiety – Minor

Patient/Parent Communications

Dr Inkster will speak to a patients family whom have raised some concerns regarding this incident.

Media

Mark Dell informed the group that there had been no media interest regarding this incident.

AOCB

Dr Heuchan asked if during previous Serratia incidents if the drains been ever been tested. Dr Inkster believes that only areas surrounding the sinks and not the actual drains had been swabbed.

No further meetings have been organised.

Commented [13]: I believe that this was made in reference to the parents of the [REDACTED] incident rather than this incident (Confusing) I have recorded that there have been no concerns raised by families with regard to the Serratia incident

	Action	Responsible Person	Status
1	Arrange follow up meeting to discuss neonatal screening across the board	Jamie Redfern	Ongoing
2	A regular vent cleaning schedule for all vents is to be compiled.	Colin Purdon	Ongoing
3	A regular drain cleaning schedule of all drains within the Neonatal unit is to be compiled.	Colin Purdon	Ongoing
4	Replacement of all drain and bottle traps on Clinical Hand Wash Basins	Colin Purdon	Ongoing
5	Samples of the hardened sand like substance found within the drains is to be sent off to a specialist lab	Dr Inkster	Ongoing
6	Remaining typing results from the reference lab.	Dr Inkster	Ongoing
7	Dr Inkster is to speak a patient's family who have raised some concerns	Dr Inkster	Ongoing
8	Jamie Redfern is to email out to Clinical Directors/Team managers about adhering to uniform policy, hand hygiene and limiting large groups of staff visiting high risk areas.	Jamie Redfern	Ongoing
9	Dr Inkster and Jamie Redfern are to draw up a proposal to have the Neonatal Unit receive a HPV clean every 6 months.	Dr Inkster/Jamie Redfern	Ongoing
10	Angela Johnson has contacted the manufacturers of the incubators and they have agreed to provide posters of cleaning guidance for staff to follow.	Angela Johnson	Awaiting on posters
11	Morag Liddell is to send Colin Purdon a list of names who require access to Ward 2B, RHC so that equipment can be stored there.	Morag Liddell	Complete
12	Updates on the HPV cleans within the Neonatal Unit over the weekend are to be sent to Jenn Rodgers/Jamie Redfern & PRM.	Colin Purdon/Kerr Clarkson	Complete
13	Information leaflets for parent's regarding the upcoming HPV cleans and what they entail are to be distributed to parents.	Jenn Rodgers	Complete
14	Mark Dell is to draft a media statement in case it is required over the next few days.	Mark Dell	Complete
15	David MacDonald has reviewed the domestic provision of the unit. The back stairwell will be washed on a weekly basis.	David MacDonald	Complete
16	Cleaning of portable bed screens is being carried out and they have been included onto the daily cleaning bed space checklist.	Morag Liddell	Complete

	Action	Responsible Person	Status
17	Enhanced supervision sessions of NICU/SCBU have been introduced on a weekly basis	Susie Dodd	Complete
18	Susie Dodds is to include some additional Clinicians into correspondence regarding this incidence.	Susie Dodd	Complete
19	Hand hygiene sessions are being carried out by Stefan Morton next week (wb 04/03/19) on Wednesday and Friday	Susie Dodd	Complete
20	Drain & Environmental sampling of the Neonatal Unit	Susie Dodd	Complete

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Wednesday 19th June 2019**

Present: Dr Teresa Inkster (Chair), Susie Dodd, Dr Diane McIntosh, Dr Nick Heaney (present for first 30 mins), Jen Rodgers, Karen Connelly, Morag Jones, Gael Rolls, Mark Dell, Dr Iain Kennedy, Daryl Connor, Colin Purdon, Susan McFarlane, Dr Shahzya Chaudhury

Welcome, Apologies, Introductions

TI welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Appropriate Membership

It was agreed that all the necessary professionals were present or represented at the meeting. TI requested John Mallon from microbiology be invited to next meeting

Declarations of conflict of interest

None declared.

Minutes of the last meeting

A PAG was held on 3rd June 2019 to discuss 4 cases of GNB. The notes from the PAG were shared with group.

Incident update – 1. Patient Report

GNB cases

[Redacted content]

Actions

[REDACTED]

[REDACTED]

[REDACTED]

Atypical Mycobacteria

The IPCT have been alerted to a patient case [REDACTED] of M.chelonae a short time prior to the IMT. Further information still to be obtained. M.chelonae also isolated from most recent water sampling on ward 6A. Previous case [REDACTED] identified in May 2018. 2 cases in one year considered to be a data exceedance. Incubation period for M.chelonae is quite long.(15 days to 6- 8 weeks) IPCT to review timeline of most recent patient and movement through the hospital to establish if ever in contact with unfiltered water source. Regular visits to local district general hospital – to be investigated and included in timeline.

SD

[REDACTED]

[REDACTED]

Incident update – 2. Microbiology report

Drains in theatre areas were inspected as part of investigations into GNBs. Drains in the trough sinks were visually very clean. Drains in the clinical hand wash basins within anaesthetic room, clean prep and dirty prep had a heavy build up of black grime in keeping with drains in 2A during water/drain incident last year.

Water samples obtained from theatre were negative. Drains were sampled and have grown Stenotrophomonas and Enterobacter as well as some other environmental organisms.

Recent water sampling from 6A has found a marked reduction in GNBs but Atypical Mycobacterium has been isolated from a number of points. These were random outlets chosen for sampling. These samples were taken with point of use filters off. TI explained that Chlorine dioxide has been very effective against Gram negatives but atypical mycobacteria persisting. They are likely more resistant to disinfection

Edinburgh lab will send for Whole Genome Sequencing (WGS) to St Andrews lab on atypical mycobacterium isolates from patients and water samples to establish if same type. WGS is a relatively new methodology.

Incident update – 3. Other relevant reports

Nil

Risk Management/Control Measures – Current

Water samples need to be taken on ward 6A with PAL filters in place and without to enable a comparison. TI will confirm afterwards how many should be taken once she has discussed with labs. Atypical Mycobacteria take a few weeks to grow. No quick test available.

Suggest speak to PAL and look at their evidence that POUFs effectively prevent infiltrate of Atypical mycobacterium from water supply.

CP

POUFs being changed every 31 days. This includes showers head filters. Shower filters have an expiry of 31 days.

CP

Timeline for patient M.chelonae case to be developed. Need to look at all areas patient has been , interventions and whether filters present

SD

POUFs need to be applied in theatres within RHC. Water testing required in theatres pre filters. Use of POUF in this area will be reviewed at a later date and following further investigations.

CP

TI queried if patients could have been in contact with any other water sources within hospital i.e. water coolers/ice machines? – None identified by nursing or medical staff.

CP to check if water cooler has been removed from 6A staff room.

CP

CP to look at all water sampling results and provide report as to how far back in the water system the M.chlonae has been isolated.

CP

Risk Management/Control Measures – Future/Preventative

Nil in addition to those mentioned above.

HIIAT

Severity of illness – Moderate

Services – Minor

Risk of transmission – Moderate

Public anxiety – Moderate

Hypothesis

Atypical Myco – Patient has been exposed to unfiltered water source somewhere on site.

GNB – Possibly acquired out with the healthcare setting given negative water sampling.

Communications – Patients/Parents

Parents not to be informed of GNBs at present as no conclusive evidence that it is due to healthcare environment.

M.Chleonaе – Further information to be gathered in respect to timeline and water testing. Comms will then be prepared for parents. It was agreed that parents of current case would be spoken to by Prof Gibson on her return from leave next week,

Communications – Staff

Nursing and medical staff to update clinical teams. Staffing brief will be prepared by Dr Chaudhury. TI happy to review prior to it being issued.

Communications - Public

Press statement to be prepared.

Duty of Candour

Discussed under comms for patients/parents.

AOCB

Discussed recent environmental incidents on 6A.

- Leaks from chilled beams due to boiler failure.
- Leaking pipe with water ingress into ceiling space. Mould evident on ceiling tile.

JRo would like to send a senior team brief. TI will issue one.

SD and KC will look at an area within the hospital for monitoring grime within drains. Drains will be manually cleaned. They will then be monitored to see how quickly grime builds up without a weekly chemical clean programme using hysan. The aim is to establish any effect by the chlorine dosing on the drain cleanliness.

Date and time of next meeting

TBA for next week on return of Professor Brenda Gibson.

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Tuesday 25th June 2019, 13:30
Ward 6A**

Present: Dr Teresa Inkster (Chair), Susie Dodd, Sandra Devine, David MacDonald, Kevin Hill, Jamie Redfern, Mark Dell, Morag Jones, Tom Steele, Darryl Conner, Annette Rankin, Janet Young, Angela Howat, Dr Chris Deighan, Dr Iain Kennedy, Sandra Higgins, Dr Shahzya Chaudhury, Gael Rolls, Dr Jairam Sastry

Apologies: Colin Purdon, Karen Connelly, Patricia Friel, John Mallon,

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Appropriate Membership

It was agreed that all the necessary professionals were present or represented at the meeting.

Minutes of the last meeting

The minutes of the meeting held on 19th June 2019 were agreed with the following amendments –

David MacDonald's name should be removed as being present.

Update on Actions:

Please see separate action plan.

Patient Report - Gram Negative Bacteraemia

There has been 6 gram negative bacteraemia positive patients in the last 3 months. Of the 6 cases 2 are Hospital Acquired Infections (HAI) and the other 4 are Healthcare Associated Infection (HCAI)

Of the two HAI cases is possible gut source.

All patients are doing well in view of their positive blood cultures.

Actions

Patient Report - Mycobacterium chelonae (M.chelonae)

There have been two cases of this organism in the last 12 months. [REDACTED]

Epidemiology

Discussion as to whether or not these numbers are just background rates were excluded as we would should see common e-coli organisms. The strains of the gram negative bacteraemia are unique so it is not being passed from patient to patient.

Gram Negative Epidemiology

The group discussed a patient that had been transferred to Edinburgh and recently tested positive for pseudomonas putida who has links to Ward 6A. This organism has been found in recent water samples so it has been requested to include this patient in the existing timeline as a possible case relating to this incident.

SD

M.chelonae

In the last decade there has been [REDACTED] cases reported within the adult population within GG&C. All [REDACTED] were haematology patients with links to Beatson and are spread out through numerous years. There has been no paediatric cases reported within GG&C in the last 10 years and with two cases reported within 12 months is the reason we are looking at this. There is limited epidemiology for this rare mycobacterium. Annette Rankin has been asked to get a list of all positive M.chelonae cases within Scottish health boards so that we can compare our figures with theirs. M.chelonae has been added onto the Infection Control alert organism list that will alert the team to any future positive cases.

AR

Discussion about if any other health board in Scotland currently tests for this organism found they do not. They would only test water if they had a positive M.chelonae patient within their hospital. There is currently traces of this within the water at Gartnavel Hospital which could be traced back to their water tanks. Dr Iain Kennedy will speak to Scottish Water to see if we can obtain water samples from the water being sent to QEUH and test in our own labs which have the ability to look for mycobacterium's. Dr Inkster informed the group that the incubation time for M.chelonae is 15 days to 8 weeks. This puts the second patient present in RHC theatres where they had their line manipulated.

IK

Other relevant reports

Susie Dodds provided the group with two reports which consisted of patient case outlet exposure and also a general Schiehallion patient pathway report. Susie looked at patient commonalities and listed every location they had physically been to see if point of use filters had been in place, within their expiry date and also drain cleaning had been carried out within that location.

Some areas within A&E, out patients and Theatres had no point of use filters on their CHWB. These highlighted areas have since been rectified apart from a few areas within A&E and OPD which are currently being worked on.

Recent hand hygiene audits and Environmental audits showed no concerns for Ward 6A.

Water reports

Dr Inkster informed the group that they are still seeing significant build up in CHWB drains after the introduction of chlorine dioxide to the water supply which was introduced in December 2018. The reason there is still build up within CHWB after the introduction of chlorine dioxide could be that in the past 4 years since the hospital opening a thick biofilm has built up and the Chlorine dioxide is not having an effect on this.

Dr Inkster informed the group that the CHWB within Ward 6A receive a Hysan drain clean on a regular basis and are showing no build up.

Recent water test from Ward 6A came back with three shower heads and a DSR being positive for mycobacterium. Samples taken from taps with no filters showed evidence of communal fungi growth. This is systemic problem as it is in two hospitals in three separate areas.

Risk Management/Control Measures – Current

Discussion about removing the aluminium sprigets from CWHB in theatres and CDU was discussed and agreed that this would be a significant piece of work due to the removal of IPS panels. It was agreed that this would not be undertaken due to this.

Apply point of use filters to CHWB in other areas patients are likely to attend i/e. theatres, interventional radiology and OPD areas.

DC

Drain cleaning within theatres is still ongoing. There have been issues with regards to access to certain theatres in regards to setting up the necessary HAI scribe protective measures required. Darryl Jones will meet with Gael Rolls to organise times/dates for this to be undertaken as soon as possible. Dr Inkster is to be informed before any work will go ahead.

DC/GR

Increase doses of chlorine dioxide within the water tank will be undertaken as it is possible that the mycobacterium within the water tanks is resistant to this. If this doesn't have any effect then we may need to look at shock dosing in the future which causes problems for patient placement.

CP

Currently three rooms within RHC OPD have point of use filters. These rooms are often full and in use but Schiehallion patients with lines inserted are taken straight up to Ward 6A. Patients who do not have lines in situ are seen in rooms without point of use filters. Susie Dodds asked if we needed to identify more rooms within OPD for these filters to be added. Angela Howat informed the group that nursing staff and doctors already know that no line access is made in a room that does not have a point of use filter in it.

The group agreed that an additional hand hygiene step should be undertaken which will consist of gelling the hands after washing them.

GR

Water samples from the chilled beams are to be taken. These will be taken from drain valves from one of the risers which is local to Ward 6A. This has been requested on the back of reports of leaks within Ward 6A within the last month. Estates are to form a report of all water leaks reported from ward 6A which will give them a marker where these leaks occurred and if

DC

Air sampling for bacteria within Ward 6A is to be carried out while water is running in the sink to see if aerolisation is present.

TI

HIAT

Severity of illness – Minor

Services – Minor

Risk of transmission – Moderate

Public anxiety – Moderate

The group agreed on an HIAT score of AMBER

Hypothesis

Gram negative potential from contaminated drains.

The M.chilonaе patients have had contact with unfiltered water. It has built up in the water system as it takes years for biofilm to be created. This is not tested within every hospital in Scotland. It is only tested if there is a case where it triggers the need to test the water supply. It is mandatory to inform HPS of any of these unusual episodes.

Kevin Hill and Dr Chris Deighan will take forward at executive level whether other hospitals sample their drains and if any clinical cases have been reported within England.

KH/CD

There are currently three hypotheses as to how these patients are contracting these organisms.

1. Water coming from the tap is hitting a biofilm within the sink's drain and creating an aerolisation which could hit the patient's line.
2. Biofilm creep from staff washing hands in CWHB where aerolisation is in film and the aerolisation.
3. Patient washing their hands and touching their lines afterwards.

Communications – Patients/Parents

Gram negative blood culture patients have not been told anything about drains or any ongoing investigations as this IMT is still uncertain about the epidemiology. Each patient with a gram negative bacteraemia has been told they have got an infection which requires antibiotics.



Jamie Redfern will deal with the communications with this family which will be in the same dialogue when the first patient who contracted M.chelonaе. A process in how we contact the first patient's family to let them know we have a second case is to be confirmed.

Communications – Staff

Communications have been sent to theatre staff and surgeons as to why filters have been fitted to CHWB.

Update to clinical staff regarding hand hygiene change is to be arranged by Gael Rolls.

AOCB

Tom Steele asked if he should inform Edinburgh Royal Infirmary who are about to open up a new hospital to test the water before opening. It was agreed that Dr Jennifer Armstrong will take this forward about informing the Executive Management.

TS

Date and time of next meeting

It was agreed that there will be a weekly IMT held.

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Wednesday 3rd July 2019, 13:00
Level 7 Seminar Room, QEUH**

Present: Dr Teresa Inkster (Chair), Sandra Devine, Kevin Hill, Kate Hamilton, Darryl Conner, Karen Connelly, Angela Johnson, Patricia Friel, Dr Scott Davidson, Gael Rolls, Kirsteen Meikle, Prof Brenda Gibson, Alan Gallagher, Angela Howat, Calum MacLeod (minutes)

Via Teleconference: Lisa Ritchie

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes of the meeting held on 25th June 2019 were agreed with the following amendments –

Page 1, 2nd last paragraph should read – Of the two HAI cases, one is a possible gut source.

Page 5 – remove the bold title “Edinburgh can still use this place for a”

Update on Actions:

Please see separate action plan.

Patient Report - Gram Negative Bacteraemia

6 gram negative bacteraemia’s in Ward 6A, QEUH of which 2 are hospital acquired infections (HAI)

Dr Inkster informed the group that a further 2 patients have tested positive for pseudomonas putida and have been added to the existing timeline. These have been classed as Healthcare Associated Infections.

The Edinburgh case which was requested to be added onto the timeline has been dismissed as patient was a day case and only had their finger pricked for testing.

Angela Howat informed Dr Inkster of a possible new case which she will speak to Dr Inkster about after the meeting.

All patients are well and there is no cause for concern.

Actions

No new cases since the last IMT. [REDACTED]

Water reports

Water results were received last night with one of them labelled ARJO bath but there is no point of use filters on the ARJO baths. The group thinks this is from the room where the ARJO bath is situated. The result from this water outlet in that room came back positive for mycobacterium with counts greater than 100 even with the point of use filter on it. The group think this may have been a defective filter. Darryl has been in contact with the company that carries out the water testing to make sure that their sequence of obtaining the water samples are correct and no cross contamination has occurred. He confirmed that they are adhering to the agreed sequence of obtaining water samples.

The group agreed that all filters which have been taken off for routine replacement should be labelled and kept until the water results have been returned. This will enable the group to identify any future filter fails and be able to trace them back to where they had been implemented.

DC

It was agreed that the sink will be tested again to confirm that the new filter is working properly.

Dr Inkster informed the group that not every water outlet is tested. This is worrying as one of the samples has come back positive and it is unknown if any other point of use filters are deficient.

Future water testing should be carried out for half the ward every 2 weeks then the other half for following two weeks. This will give an overview of all the water outlets within the whole ward.

DC

It was agreed to take the ARJO bath out of Ward 6A. Estates will remove the bath and cap off the water outlet to the bath. This will enable the bath to be reinstated once the Paediatric ward moves out of the ward and control of it is given back to the adult sector. Karen Connelly will contact Anne Harkness to seek approval for the removal of the ARJO bath.

DC

KC

The sink within the DSR cannot have a point of use filter added onto it. Darryl Conner is currently speaking to a manufacturer where they hope a filter can be retrofitted to this sink.

DC

Other Relevant Reports

All Gram Negative Bacteraemia have unique strains. This rules out cross transmission between staff/patients but not from the water/drains which has tested positive for the organisms. Currently awaiting results from the two new pseudomonas cases.

Water samples positive with M.chelonae have been sent away for whole genome sequencing, (single nucleotide polymorphisms (SNPs)) and are compared with the positive M.chelonae samples of the two patients. Dr Inkster said that if the water samples come back with less than 20 SNPs it is very likely that water could be source of the infection. A water sample from a shower is closely related to the most recent patient strain showing a count of 13 SNPs which would mean that it is highly likely it is. This patient is classified as an HAI. Further isolates with M.chelonae have been sent away so they can be tested against the water samples.

The Paediatric Infection Control Team have carried out a SICPs audit of ward 6A which scored 93% (Gold). There were very few issues identified and practice was very good.

Risk Management/Control Measures – Current

Point of use filters have been fitted onto as many outlets as we can think of where Ward 6A patients would go.

The water group are currently looking into using a higher dose of chlorine dioxide solution to the water supply (shock dosing) When this is undertaken it will have an impact on patients and clinical service as you will be unable to drink the water for approximately 12 hours but will still be able to use the water for washing. A strong odour will be present during the shock treatment. Alan Gallagher is to create a detailed plan on how this would be undertaken and what measures would need to be put in place to limit disruption to patients and the clinical service. This shock dosing will be phased like last time and estates will link in with Kevin Hill and Anne Harkness.

AG

Extensive drain cleaning has been undertaken in Theatres and CDU. Angela Howat has advised that some patients visit Nuclear Medicine/MRI which will have their drains cleaned as well.

DC

After mechanical cleans of the drains we will rely on the chlorine dioxide to keep the drains clean. An additional hysan clean to drains within ward 6A is also being carried out.

The taps currently present in the unused prep room within Ward 6A are to be replaced as no point of use filters can be fitted. This is to eliminate the potential risk in case staff use this sink. The scribe to undertake this work has already been completed and signed off so it can be started as soon as possible.

DC

HIAT

Severity of illness – Minor

Services – Minor

Risk of transmission – Moderate

Public anxiety – Moderate

The group agreed on an HIAT score of AMBER

Hypothesis

With regards to the Gram negative bacteraemia it is unclear if these numbers are expected as a background rate or if it is related to the ward or outlying areas environment.

M.chelonae cases - the group is working on the assumption that it is due to patients/staff having access to unfiltered water throughout different areas of the hospital.

Communications – Patients/Parents

Brenda Gibson is looking for advice regarding a Facebook page which many of the patient's parents use to communicate with each other and are writing posts about this current situation. Kevin Hill is currently in contact with our legal team to see if these comments can be removed from the public Facebook page.

Dr Inkster has drafted some lines that can be used for a general communication to the patients/parents. Dr Inkster will send this to Kevin Hill for agreement before forwarding it to Angela Howat.

TI/KH

Communications – Staff

It was agreed that the same communications we give to patients/parents should be the same we give to staff.

The main concern from staff are the recurring problems and are these problems ever really resolvable or is there fundamentally something wrong with the campus.

Dr Inkster informed the group that Ward 2A in the RHC is currently undergoing a major refit which will make it a state of the art ward with respect to ventilation. Any issues with mould can be designed out by using certain paint products, materials and removal of shower joins. There will be no chilled beams within the ward and it will be completely HEPA filtered. The only challenge will be the water system. Point of use filters are likely to remain

Ward 2B is still to be agreed if it is to be HEPA filtered or not so there could be a difference between specification of the wards. Dr Inkster and Prof Brenda Gibson are to meet up with Steve Russell to see how the development of Ward 2A & 2B, RHC is coming along.

TI/BG

Communications – Public

There has been no media interest.

Duty of Candour

Prof Gibson is speaking to the most recent M.chelonae patient parents on Tuesday.

The Chairman of NHS GG&C is in communication with the father of the first case.

AOCB

Lisa Ritchie asked if any of the cases from this incident had been involved with the previous incident which Dr Inkster confirmed there was not.

Edinburgh have asked if we could accept any new Haem/Onc patients over the coming days while they move into their new hospital on Monday which we can providing Ward 6A is not full.

Dr Scott Davidson asked if anything was learned from cases of M.chelonae at Edinburgh Royal Infirmary. Can HPS help with providing any learning out comes that came from that?

Date and time of next meeting

Unless there is another case it was agreed that the group will meet up again on Monday 22nd July.

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Thursday 1st August 2019, 14:30
Level 7 Seminar Room, QEUH**

Present: Dr Teresa Inkster (Chair), Sandra Devine, Gillian Bowskill, David MacDonald, Colin Purdon, Darryl Conner, Lorraine Dick, John Mallon, Dr Scott Davidson, Kevin Hill, Dr Iain Kennedy, Prof Brenda Gibson, Angela Howat, Jenn Rodgers, Annette Rankin, Melanie Hutton, Anne Clark, Dr Jairam Sastry, Emma Somerville, Alan Gallacher, Tom Steele, Calum MacLeod (minutes)

Apologies: Gael Rolls,

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes of the meeting held on 3rd July 2019 were agreed with no amendments requested.

Update on Actions:

Please see separate action plan.

Patient Report - Gram Negative Bacteraemia

Since the last meeting held on 3rd July there have been 2 new gram negative bacteraemia cases bringing the total number of cases to 10.

One of the patients has Chryseomonas and the other has Enterobacter cloacae and Elizabethkingia miricola. The patient with Chryseomonas recently had Pseudomonas putida also.

[REDACTED]

[REDACTED]

Patient Report - Mycobacterium chelonae (M.chelonae)

There has been no further M.chelonae cases.

Water reports

The result showing one of the point of use filters failed during recent water tests is most likely due to mislabelling of samples. The labs have been unable to replicate the positive water sample again with testing so it is likely a labelling error occurred.

They are no post filter positive water results from 6A or elsewhere

8 point of use filters sent to PAL to check for integrity from various locations of Ward 6A have all passed and held their integrity after being used.

It was agreed that sample fluid from the chilled beams will be taken and sent to the labs to check specifically for gram negative organisms. The chilled beam system is a separate water system designed to control the cooling/heating within patient rooms. Due to the recent warm weather condensation has increased on the chilled beams. This has made it much harder to ascertain if the water dripping from the chilled beams is coming from the system or if it is condensation.

DC

To deal with the condensation estates have developed an algorithm which involves increasing the temperature of the chilled beams when warmer weather is expected. If leaks are found within the chilled beam system estates can upgrade the fittings of the chilled beams.

It was agreed that the new algorithm should be implemented and test it for functionality over the next few weeks.

CP

The IMT asked why we were treating patients who were situated underneath chilled beams when there is a risk of condensation and/or leaking water dripping onto them. Ward 6A is a general medical ward. It was noted that all patient rooms within the QEUH (exception of Ward 4B BMT) and RHC have chilled beams.

Other Relevant Reports

Dr John Hood has been taking regular air samples to help him with his ongoing investigation into the Cryptococcus incident. Recent samples from the 15th of July found counts of pathogenic fungi like aspergillus. The counts were small but it is the nature of the fungi which is concerning. These positive results were found only from air samples taken within patient en-suite bathrooms. These bathrooms are not HEPA filtered due to health and safety reasons but the patients rooms are HEPA filtered. Comparative samples taken in Ward 4C did not find anything. Dr Inkster will send the room numbers of the positive ensuite bathrooms to estates so they can check to see if they can find any source for this.

TI

An ongoing investigation in relation to a smell coming from the prep room is still underway. There are no signs of leaks/mould above the ceiling void and no sign of dampness/mould behind the IPS panels. The aseptic pharmacy is also being looked into as a possible source of the smell.

Colin Purdon informed the group that the plant room which supplies the ventilation to the Ward 6A had received some water ingress due to the recent heavy downpours. The plant room was immediately cleaned and there was no evidence of any water ingress from this into the prep room or aseptic room.

Risk Management/Control Measures

It was agreed that the chilled beams are to be cleaned every 6 weeks instead of the current 3 months. It takes about half a day for the chilled beams to be cleaned. There is difficulty in gaining access to the rooms to carry out this cleaning as it needs to be empty but facilities will communicate with Senior Charge Nurse to co-ordinate the cleans.

DC

Risk Management/Control Measures contd

Dr Inkster has requested she should be informed when the next chilled beams are being cleaned so she can take environment samples of them beforehand.

TI

Weekly chemical drain cleans are still being undertaken within Ward 6A.

Estates have concerns regarding the problems which occur when carrying out shock dosing to Ward 6A. Dr Inkster will communicate with the water technical group to form an agreement regarding this as this was an IMT recommendation which has not been carried out

TI

Ward 4C which is being used as a comparison ward due to similar patients and environment does not have an increase of gram negative bacteraemia. This could be down to patients receiving Ciprofloxacin prophylaxis. This prophylaxis is more extensively used on adults. Prof Gibson will speak to her fellow clinicians to reach an agreement if they are to start using this.

BG

Jenn Rodgers is going to request a peer audit of central lines care within ward 6A to be carried out by their practice educator and in conjunction the Infection Control Team. This audit will identify any problems in practice with patient central line care.

JR

Hypothesis

The hypothesis for the M.chelonae case has been resolved where exposure to water out with ward 6A has been the origin. No further action required, this section of the IMT is now closed.

The hypothesis of the gram negative environment bacteraemia is still unexplained. It's the nature of the gram negative environment organisms being found and not the number which is concerning. The group are happy with the water coming out of the taps. The only other water source is the chilled beams.

It was agreed that toilet seats covers will be fitted to all ensuite bathrooms of patient rooms to combat any toilet flush plumes that may occur when flushing the toilet.

HIIAT

Severity of illness – Major
Services – Moderate
Risk of transmission – Moderate
Public anxiety – Moderate

The group agreed on an HIIAT score of RED.

Gillian Bowskill & Sandra Devine will complete the HIORT and send onto Dr Inkster for accuracy before being sent onto Health Protection Scotland.

GB/SD

Communications – Patients/Parents

██████████ who are coming into Ward 6A are being re-directed to Edinburgh Children's hospital. Edinburgh children's hospital have already been informed of these █████ families being moved over. The families have not been informed that they are being redirected.

Nothing has been discussed with the current inpatients as yet, awaiting update from IMT.

It was agreed that the patient pathway used last year could be reinstated for incoming patients. This will be agreed tomorrow after clinicians meet up to discuss the situation.

Communications – Staff

Prof Gibson held a meeting this morning with fellow clinicians who have raised their concerns that they were moved out of Ward 2A/2B due to increase of gram negative bacteraemia. They feel that it has been over a year since this has been highlighted and the problem still exists even after moving into Ward 6A, QEUH. Clinicians think the control measures are not working as it is still unclear what the underlying problem is resulting in these gram negative bacteraemia.

Communications – Public

It was agreed that Lorraine Dick will draw up some communications to be shared with staff and patients after the clinical meeting is held tomorrow morning and they are in agreement of the control measures put in place.

LD

Duty of Candour

This will be covered under the communications meeting tomorrow morning.

AOCB

The press office were contacted regarding an article printed in papers over the weekend but they did not have any power to stop it being published. There was no follow up regarding the story.

Dr Kennedy gave a verbal talk during an IMT last September (28/09/18) regarding his epidemiology findings. He compared the infection rates from the old Yorkhill site with the new RHC site, bearing in mind that occupied bed numbers had increased since the move into the new hospital. He has since written this into a report which will be sent out to the IMT next week.

IK

The next IMT is being held on Thursday 8th August at 1430, Level 7 Seminar Room

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Thursday 8th August 2019, 14:30
Level 7 Seminar Room, QEUH**

Present: Dr Teresa Inkster (Chair), Lorraine Dick , David MacDonald, Tom Steele, Colin Purdon, Pamela Joannidis, Gillian Bowskill, Annette Rankin, Kevin Hill, Sandra Devine, Jenn Rodgers, Dr Scott Davidson, Dr Alan Mathers, Prof Brenda Gibson, John Mallon, Dr Jairam Sastry, Dr Dermot Murphy, Alan Gallagher, Calum MacLeod (minutes)

Apologies: Gael Rolls

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

The minutes of the meeting held on 1st August 2019 were agreed with the following amendments :-

Page 2, Water Reports, last paragraph - It was noted that all patient rooms within the QEUH (exception of Ward4B BMT) and RHC have chilled beams.

Page 3, Hypothesis, 1st paragraph - No further action required, this section of the IMT is now closed.

Page 4, Communications – Patient/Parent, 1st Paragraph - The families have not been informed that they are being redirected

Page 4, Communications Patients/Parents, 2nd paragraph - Nothing has been discussed with the current inpatients as yet, awaiting update from IMT.

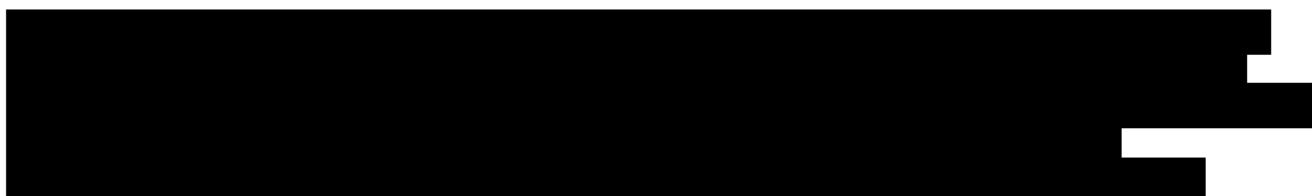
Update on Actions:

Please see separate action plan.

Nuclear medicine in RHC has a sink where no point of use filter is fitted as they dispose of isotopes down the drain. Dr Inkster & Gillian Bowskill will investigate.

Patient Report - Gram Negative Bacteraemia

Overall there have been 11 cases, 4 of which are confirmed HAI, with a further possible case. Currently 5 of patients are in Ward 6A.



Actions

TI/GB

[REDACTED]

[REDACTED]

Prof Gibson made reference to a patient with a Rhodococcus in blood cultures from 4B (has been in 6A). Blood culture came back as something unusual, Dr Inkster agreed to review

Gillian Bowskill will send out an updated timeline to the IMT.

GB

Water reports

4 water samples (2 cold and 2 hot) have been taken from the sealed chilled beams. The two hot water samples came back negative. The two cold water samples came back with heavy growth of pseudomonas oleovorans (counts >100) and small numbers of aeruginosa. Pseudomonas should not be present within the sealed water system of the chilled beams. From a microbiology opinion they were not expecting the cold water samples to come back positive. Repeat water samples have been taken this morning (08/08/19) and have been sent to the labs at Glasgow Royal Infirmary for testing. Dr Inkster noted a swab from a chilled beam from a colleague in June growing Pseudomonas oleovarans. This is a very rare isolate and would suggest a leak from the circulating water. Angela Howat confirmed the swab was taken from the chilled beam grille.

Air sampling came back with common skin flora, Acinetobacters and one Stenotrophomonas, but all samples were not heavily contaminated and showed small amounts of growth. Only 3 rooms were sampled

Swabs of the chilled beams have been taken in all the patient rooms. Some have a light growth of environmental Gram negatives including Klebsiella, Acinetobacter and Pantoea species. There was discussion as to whether any of the patients had tested positive for these gram negative organisms which they had not. It was noted a patient with Pantoea was recorded during a previous incident.

TI

Dr Inkster has been in contact with Ian Storrar from Health Facilities Scotland who has been looking at the schematics of the chilled beams within the hospital and has advised Dr Inkster where he thinks are the best places to take samples. It was agreed to take environment samples of the chilled beams in area's out with Ward 6A and compare them with new samples to be taken of the newly cleaned chilled beams within Ward 6A.

JM/Facilities

John Mallon mentioned the water from the chilled beams was very slow to filter suggesting particulate matter. Tom Steele confirmed that there would likely be glycol and other corrosion inhibitor chemicals within the system, so perhaps not surprising about viscosity.

John Mallon has requested that the people taking the samples are to clearly label them for what they are to be tested for. John Mallon will speak to estates to clarify what should be put on the sample labels so they can be processed accordingly.

Other Relevant Reports

A central line access audit was carried out by a practice educator from another area. The audit looked at 5 patients with central lines. Overall practice in relation to central line care was really good. Only one issue identified was with the use of Curoc caps. The Curoc caps comes in a sealed unit impregnated with alcohol so the scrub the hub step is not required. This was subsequently reintroduced as an extra step as it was felt the caps spun on the smartsite and were not an exact fit. The audit found staff were not always waiting the recommended drying time following scrub the hub. Jenn Rodgers noted a new cap manufactured by BD has become available and will be tested. Kathleen Thompson will link in with Gillian Bowskill around this and whether thereafter the additional step can be removed.

The Infection Control Team carried out enhanced supervision of Ward 6A on Tuesday. No major issues were identified. A few equipment items were not visibly clean but upon inspection it was identified as being medication (clear liquid substance) and not blood/body fluids. There was a domestic issue complaint regarding the floors being dirty. Domestics carry out mechanical scrubbing of floors using machines when patient rooms are vacant. If the rooms are occupied they use a mop to clean the floors. Domestics are finding clutter within rooms making it harder for them to gain access to certain areas. The IPC team will carry on doing weekly enhanced supervision.

A hand hygiene audit was undertaken on Friday 2nd August, which scored 95% for opportunities taken and 85% for technique. This was added to the staff safety brief to remind staff.

A SICPs audit was undertaken on Friday which scored 97%.

Risk Management/Control Measures

Alan Gallagher has drawn up an action plan which will focus on the chilled beams within Ward 6A and how estates issues/services are managed within this area. There will be one estates officer (Kerr Clarkson) who will co-ordinate all estate items/functionality of the ward and tie in with SCN Emma Somerville. (Jim Guthrie is currently covering Kerr until he returns on Monday). This work plan will be circulated to the group once it has been finalised.

AG

The cleaning of grills within Ward 6A will be increased to every month/6 weekly. Estates are purchasing new grills that will streamline the replacement/cleaning of them. With the increase in chilled beam cleaning and vent cleaning there will an increase of staff within the ward due to this. An enhanced SOP regarding chilled beams cleaning within high risk areas is being developed.

Prof Gibson raised her concerns that patients within Ward 6A should not be put into a ward that has chilled beams. There is currently no alternative area within the whole campus that the patients can be moved to that does not have chilled beams apart from Ward 4B in the QEUH. Ward 2A/2B within the RHC will not be finished until approximately April 2020.

Kevin Hill has asked if Ward 4B could give more beds to the paediatric service but they are currently in no position to move patients out with the ward over the next 4 weeks. Dr Scott Davidson will ask Dr Jennifer Armstrong Medical Director to see if there is anywhere that could house patients from Ward 6A. IMT can make recommendation regarding decant of Ward 6A but the final decision will be endorsed by the Chief Executive.

The list of patients that are planned to come into Ward 6A is to be obtained so we can see if any rooms within Ward 4B can be possibly made vacant for this.

BG

Another option previously considered was the use of a temporary mobile unit to replace Ward 6A. This will need to be a complete replacement of the ward as it will not be possible to staff Ward 6A and a temporary unit. A location to place the mobile unit within the QEUH/RHC campus would be required along with access to water/power and drainage facilities.

It was suggested that another possibility, the cardiac transplant ward in the Golden Jubilee which has no chilled beams and has been designed for high risk patients. The option would be to move the adult Ward 4B patients to the Golden Jubilee hospital temporarily that would free up beds to enable patients from Ward 6A to use the beds in Ward 4B. Paediatric patients cannot move over to the Golden Jubilee as there is no paediatric intensive care facilities over there.

An option appraisal meeting is to be set up for Monday to look at possible solutions if the decision to relocate Ward 6A is decided.

BG/KH

The public toilet at the entrance to Ward 6A is being used by numerous people and is not being left in a clean state. It was agreed that a mechanical lock would be placed on the public toilet. The disabled toilet will remain open.

CP

Risk Management/Control Measures Contd

The toilets within Clinic 2, RHC are getting filters fitted to their tap. Some of these are sensor taps which will be changed to something more suitable in the near future.

CP

Tom Steele asked if there was anything that can be added to the chilled beam water that could combat the pseudomonas. Dr Inkster suggested Chlorine Dioxide but was unsure what dosing would be required and if would be sustainable within a closed system. Estates will explore this to see if it is viable with the chilled beam manufacturers. There is also a risk of interaction with existing coolant in the system

CP

Estates will see if there is a device that can catch drips from the chilled beams and be collected centrally within the ward.

CP

Hypothesis

The primary hypothesis for the increase of gram negative bacteraemia are the chilled beams either leaking or dripping condensation onto patients.

The other hypothesis the group are working towards is the access to unfiltered water patients may have had out with Ward 6A.

HIAT

Severity of illness – RED

Services – MODERATE

Risk of transmission – MODERATE

Public anxiety – MODERATE

The group agreed on an HIAT score of RED

Gillian Bowskill & Sandra Devine will complete the HIORT and send onto Dr Inkster for accuracy before being sent onto Health Protection Scotland.

Dr Inkster informed the group that the HIAT states that the final decision to release a press statement irrespective of the HIAT score lies with the IMT chair. The communication should come from IMT but senior management have final say on press releases and not Dr Inkster.

Communications – Patients/Parents

There was feedback from the press release last Friday that parents were not informed before putting a statement out. We had committed when issuing a press statement that we would inform the teams and families before hand when possible had been agreed in previous meetings.

An information leaflet agreed by the IMT was given out on Friday. It was given to staff first before being handed out to patients/parents. This information is continually being handed out until we have received any new information. Different groups of patients would require different information (day care, inpatients, clinics)

The group are going to look into the possibility of sending an email to patients/parents to update them. The email will be sent out but patients/parents will be unable to reply with any queries. They will be asked to validate their email address if they want to sign up for the email updates.

Communications – Patients/Parents Contd

A possible NHS hosted Facebook page for parents with patients in Ward 6A was discussed but the practicality surrounding this regarding the validation of people who join the group, it was deemed a bad idea.

Dr Inkster attended a parent meeting with Emma Somerville and the ward psychologist. Parents are keen for regular updates and a hard to reach group are the outpatients or infrequent ward attenders. Parents of patients have requested a weekly meeting so they can get updated on the current situation of the ward but Dr Inkster is unable to accommodate this at present due to workload.

Lorraine Dick has suggested a separate meeting to discuss how future communications to parent/patients who are coming into clinics, outpatient areas and Ward 6A could be disseminated.

LD

Press

A press statement was issued on Saturday 3rd of August to the Herald on Sunday newspaper, the day after the letter was shared with families and the two families directly affected were spoken to about the likelihood of media coverage at the weekend. We followed the guidance completely on notifying the patients.

The next IMT is on Wednesday 14th August at 12:00 in Level 9 Seminar Room, QEUH.

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Wednesday 14th August 2019, 12:00
Level 9 Seminar Room, QEUH**

Present: Dr Teresa Inkster (Chair), Sandra Higgins, Sandra Devine, Colin Purdon, Lorraine Dick, William Hunter, Annette Rankin, Dr Jairam Sastry, Dr Christine Peters, Gillian Bowskill, Jamie Redfern, Jenn Rodgers, Tom Steele, Dr Milind Ronghe, Emma Somerville, Angela Howat, Dr Chris Deighan, Alan Gallagher, Dr Dermot Murphy, Kathleen Harvey Wood, Calum MacLeod (minutes)

Apologies: Gael Rolls, Pamela Joannidis, John Mallon

Welcome, Apologies, Introductions

Dr Inkster welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

Comments/amendments from the minutes of the 8th August IMT meeting were received from Jenn Rodgers, Tom Steele and Sandra Bustillo. The minutes will be updated and re-circulated to the group.

Update on Actions:

Please see separate action plan.

Patient Report - Gram Negative Bacteraemia

Overall there have been 11 patients who have met the case definition plus a further 2 cases which are currently under investigation and may be added to the overall numbers.

Of the 11 patients who have met the case definition, 3 of them remain in Ward 6A

[REDACTED]

[REDACTED]

[REDACTED]

Actions

[REDACTED]

[REDACTED]

TI/GB

The case definition regarding this incident is to be reviewed.

TI

Chris Deighan pointed out that the numbers of bacteraemia have not increased and referenced Ian Kennedys epidemiology report. This was in response to a comment from one of the consultants who said that there had been an increase in infections. Dr Inkster and Dr Peters stated that the nature of the bacteria were a concern. Dr Inkster stated that we are not seeing the typical pathogens for this patient group i.e. E coli, Klebsiella, Staph aureus, Candida, Pseudomonas aeruginosa. It is likely that CLABSI work and excellent practice has driven rates of those down. The organisms we are seeing are environmental in nature and associated with water /soil.

Water reports

Dr Inkster went over recent water reports where samples from the basement plant room were taken. It is unknown if these water samples are pre filter or not. Colin Purdon is in contact with DMA who took the water samples to ascertain what the coding on each of the sample bottles means. Dr Inkster stated that one of them has tested positive for Klebsiella and Pseudomonas putida (of relevance as we have seen patient cases of BSI)

CP

Cold water samples which supply the chilled beams have come back with counts >10000 pseudomonas oleovorans. Full results from the water are still out standing.

With the presence of pseudomonas oleovorans it suggests there are leaks coming from the circulating chilled beams as this organism has been found in oil emulsions used for lubricants and cooling agents. These leaks date back to the day there was a significant number of leakage from the chilled beams in early June. Dr Christine Peters who completed an SBAR regarding chilled beams witnessed leaks from the chilled beam system from the connectors. This is evidence the chilled beam system is not a sealed system as previously thought. Estates informed the group that fittings between the pipes can be changed from a push fit connector to a mechanical fit connector.

TS

Water Reports Contd

Dr Inkster had sent out some slides from the CDC informing the group that environmental sampling is not an exact science. A surface swab may only get a 25% yield in getting bacteria off the surface onto the swab and a further 25% yield on to the culture plate. This could mean that the swab is not picking organisms that are already there. Furthermore only a tiny sample from a huge surface area is sampled. She expressed concern that too much emphasis is being placed on negative results and stated that some microbiologists do not undertake testing and labs are not accredited for such.

Other Relevant Reports

The Infection Prevention & Control Team (IPCT) carried out enhanced supervision yesterday. Minor estates issues were noted and a few items of equipment were not clean due to environmental contamination.

Hand Hygiene audit saw a few incidences of poor technique with a variety of staff (3 students, Staff Nurse & AHPs). Dr Inkster stated that this was unusual for the ward. Angela Johnson who carried out the hand hygiene audit observed an episode of hand hygiene technique yesterday that was less than 20 seconds. This included the hand washing, rinsing and drying off with the paper towel. As discussed hand hygiene using soap and water takes 15-30 seconds to include drying of hands. Details of the hand hygiene audit should be gained from Angela Johnson and followed up with the team to ensure clarity and learning. On the back of this Stefan Morton (Hand Hygiene Co-ordinator) will be carrying out and hygiene training for staff.

SM

A few CVC/PVC care plans were incomplete with either the maintenance or insertion criteria not completed. Jenn Rodgers has requested staff to carry out a PVC/CVC care plan check on every shift and making sure they have been completed correctly. This will also be added onto the safety brief for staff.

Risk Management/Control Measures

A patient's parent raised their concern regarding the practice with Actichlor being decanted from one container into another not within in the DSR.

The issue regarding a staff member not using the appropriate mopping system has been addressed with the staff member receiving additional training.

The DSR currently has a tap where a point of use filter cannot be fitted onto it. Estates have been unable to find a filter that could fit the existing tap within the room. Estates have agreed to look again for a possible filter or may need to replace the tap itself.

CP

Toilet seats covers are currently being fitted to all patient bathrooms.

Emma Sommerville reported that the scrubbing machine used to scrub the floors leaves a trail of water from the back of it. Dr Inkster asked if the water within these machines is an Actichlor solution. William Hunter is to clarify if the water used within the scrubbing machines is that of an Actichlor solution.

WH

Alan Gallagher went through the ongoing compliance work action plan which was circulated to all members of the IMT.

Risk Management/Control Measures

A sample of a HEPA filtration unit which can be deployed within patient en-suites above the ceiling tiles has been sourced. Tom Steele will send the data sheet to Dr Inkster before any decision is made. If the HEPA units can be deployed then air testing will be carried out before and after deployment.

TS

Discussion was held regarding if a Hydrogen Peroxide Vapour (HPV) clean of rooms should be undertaken as part of the discharge clean. In order for this to be effective high level dusting needs to be carried out so estates are to investigate if hyperstatic cleaning can be carried out before the HPV clean can be undertaken.

Reiterate to staff to remind patients to minimise movement off the ward and ask them not to use public toilets facilities.

Currently NHS GG&C are sending all new patients to NHS Grampian and NHS Lothian along with some selected chemotherapy patients as well. This has proven difficult with patients and their families who are finding it hard to go to distant health boards. There is also the problem regarding space within these health boards and the longer we send new patients to other health boards the greater impact it is going to have on their own workload. No patients have been transferred out with the country so far due to this incident. Management are in constant dialogue with the Regional directorate to obtain additional beds within the HEPA filtered Ward 4B.



Hypothesis

The primary hypothesis for the increase of gram negative bacteraemia are the chilled beams either leaking or dripping condensation onto patients and their surroundings.

The second hypothesis the group are working towards is the access to unfiltered water patients may have had out with Ward 6A.

HIAT

Severity of illness – MODERATE
Services – MODERATE
Risk of transmission – MODERATE
Public anxiety – MODERATE


The group agreed on an HIAT score of AMBER

Gillian Bowskill & Sandra Devine will complete the HIORT and send onto Dr Inkster for accuracy before being sent onto Health Protection Scotland.

Communications – Patients/Parents

An information leaflet was given to all in patients on Friday night.

Contacting out patients is proving to be difficult as there is no easy way to get in contact with them.



Communications - Staff

Staff received the same communications as the patients/parents. Feedback from staff has been positive about being kept up to date with the situation.

Lorraine Dick will see if a further update on the situation will be sent to staff/patients.

Press

One outstanding media inquiry to which Claire Cook from the press team will be responding to later today after members of the IMT were content with her reply. Discussion about informing the media of a possible further 2 cases which are under investigation resulted in no decision can be made until cases have been confirmed.

AOCB

Jenn Rodgers requested that future enhanced supervision visits should be carried out by the Lead Infection Control Nurse. Sandra Devine said it all depends on the what staffing is available.

Tom Steele requested an alternative to photos being sent to the group due to the sensitivity of some of them. He requested that in future appropriate meeting rooms can be booked to enable the photographs can be shown at IMT. Meeting rooms are very hard to book and some do not have sufficient IT equipment to enable the chair person/members of the group to give presentations. Dr Inkster stated that it was important to show photos particularly in relation to the complexity of chilled beams and also to help inform the group ahead of any decisions being made relevant to patient care.

The next IMT is on Friday 23rd August at 10am, Room L2005, Level 2, Teaching & Learning Building, QEUH

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Friday 23rd August 2019, 10:00
Room L2005, Teaching & Learning Building, QEUH**

Present: Dr Emilia Crighton, Dr Chris Deighan, Gillian Bowskill, Sandra Devine, Jenn Rodgers, Tom Steele, Darryl Conner, Dr Jairam Sastry, Pamela Joannidis, Dr Iain Kennedy, Prof Brenda Gibson, Dr Teresa Inkster, Annette Rankin, Emma Somerville, Colin Purdon, Lorraine Dick, John Mallon, Dr Dermot Murphy, Dr Milind Ronghe, Calum MacLeod (minutes)

Apologies: Alan Gallacher, Gael Rolls, Sandra Higgins, Jamie Redfern

Welcome, Apologies, Introductions

Dr Crighton welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

The group asked why Dr Crighton was chairing this meeting and not Dr Inkster. Dr Inkster informed the group that she will no longer chair this meeting. Dr Inkster said that she was asked to demit the chair, Sandra Devine said that she had had a conversation with Dr. Inkster regarding the complexities of chairing this meeting and being an active participant and that in principle Dr Inkster was in favour of another chair, however, this conversation was informal and no decision was made at that time. Sandra Devine informed the group that in Dr Inkster's absence this week and to ensure that the meeting went ahead she had contacted other ICDs but because of the complexity of the meeting they did not feel they could chair. She also commented that the board SOP states that the chair can be either an Infection Control Doctor or Public Health Consultant. This is also in keeping with national guidance.

Minutes of the last meeting

Minutes from the previous IMT held on 14th August were disseminated to the group and the following amendments were requested:

Page 3, Other Relevant reports, 2nd paragraph, last line - Detail of the hand hygiene audit should be gained from Angela Johnson and followed up with the team to ensure clarity and learning.

Page 4, Risk Management/Control Measures, 2nd paragraph, 2nd last line – In order for this to be effective high level dusting needs to be carried out so estates are to investigate if hyper static cleaning can be carried out before the HPV clean can be undertaken

Page 4, Hypothesis, should read - The primary hypothesis for the increase of gram negative bacteraemia are the chilled beams either leaking or dripping condensation onto patients.

The other hypothesis the group are working towards is the access to unfiltered water patients may have had out with Ward 6A.

Page 5, AOCB, last paragraph, 1st line – Tom Steele requested an alternative to photos being sent to the group due to the sensitivity of some of them. He requested that in future appropriate meeting rooms can be booked to enable the photographs to be shown.

Actions

Update on Actions:

Please see separate action plan.

Incident Update – General Situation Statement

Possible link to the unusual gram negative bacteraemia being found within Ward 6A and organisms found in water and chilled beam environmental samples.

The haematologist/oncologist clinicians require access to a safe environment to treat their high risk patients. The initial move of patients from Ward 2A/2B into Ward 6A QEUH was supposed to be short term but has become long term after a ventilation review was carried out while Ward 2A was empty and undertaking facility upgrades. Currently looking at March 2020 until patients can move back into Ward 2A but this could change as there has been some changes to the scope of works required.

Clarification regarding the case definition for this incident was discussed.

It was agreed that any patient with a bloodstream infection from an organisms whose source is water or soil i.e. environmental organisms.

Patients who have a positive BC and have contact with 6a or supporting services (excluding 4B) in the past month.

It was agreed that if no new infections are detected after 4 weeks then we can assume the control measures put in place are working and lifting restrictions on admission would be considered.

Incident Update – Patient Report

To date there has been 11 cases of gram negative bacteraemia in 10 patients (1 patient had 2 separate episodes). 4 of these cases are Hospital Acquired Infections (HAI).

Out of the 10 patients, 3 remain as inpatients.

There were two possible cases. One of the patients who was under investigation as a possible case will not be included as patient did not have any contact with Ward 6A and [REDACTED]. The other possible case is still under investigation.

The last confirmed case was on 2nd August 2019.

Incident Update – Microbiology Report

Dr Inkster informed the group of a recent environmental positive *Stenotrophomonas* sample taken in an area just outside the anaesthetic room of Ward 2a, RHC. It is thought this may be due to the domestic using water from the DSR. Water in this area is filters and has chlorine dioxide present but does not have point of use filters so organisms commonly found in potable water will still be present. Only with the introduction of point of use filters fitted to taps can you guarantee no organisms within the water.

Numerous results have come through but require decoding of areas of where samples were taken is before a final report can be completed. John Mallon is going to create specific labels for all future water samples taken regarding this incident so that they can be easily identified and lab staff will know what to test for.

J Mallon

3 samples from chilled beams within Ward 6A are to be taken and compared against samples from another area within the hospital. Estates have said they have found issues in gaining access in other areas to carry this out so it was agreed samples can be taken from a clinic instead where access will be easier.

John Mallon commented that recent samples from chilled beams were negative for gram-negative organisms, yeasts and fungi.

Incident Update – Other Relevant Reports

This week enhanced supervision found few minor estates issues which have been rectified. Hand Hygiene audit score was 100% opportunity taken and 80% compliance. The general failure with the compliance was staff touching taps after hand hygiene and before patient contact. Gillian Bowskill said the failures were by a mixture of staff groups.

Dr Kennedy asked how can we demonstrate that we are dealing with improving hand hygiene scores as recent reports have seen opportunities taken not being 100%. Hand hygiene co-ordinator Stefan Morton is carrying out training for all groups of staff over the next few weeks.

Jenn Rodgers informed the group that a different external person carried out the central line audit of Ward 6A, Day Care & OPD area. Overall practice was good in all 3 areas.

Hypothesis Update

The primary hypothesis for the increase in gram negative bacteraemia are the chilled beams either leaking or dripping condensation onto patients and their surroundings.

The second hypothesis the group are working towards is the access to unfiltered water patients may have had out with Ward 6A, e.g. toilets in adult and children's atrium, school room, Clic sargent etc.

Dr Kennedy spoke about his epidemiology report where it outlines the number and nature of the organisms. Within his epidemiology you can see patterns which are similar to the old Yorkhill hospital. You can recognise the work which has been undertaken recently to drive down the Klebsiella rates. Discussion on what would be a reasonable rate of infection within the haematology/oncology paediatric population was discussed. Dr Inkster has obtained figures from Great Ormond Street Children's Hospital public annual report where they reported 4 gram negative bacteraemia within its patient population but none within the nature found during this incident. Dr Kennedy suggested that occupancy, which is higher in the new unit compared to the old facility and patient acuity should be taken into consideration when reviewing data. He also commented that all these types of infections had been seen before in the unit in Yorkhill hospital.

The group commented that we might not be seeing as many infections because we have diverted cases. It also commented that comparing GOS to the current ward was not appropriate as the current ward was a temporary location and comparisons when patients are located in the new unit may be more meaningful.

Risk Management/Control Measures - Patients

Patients are currently receiving Ciprofloxacin as a prophylaxis to prevent infections. Clinicians are reporting that patients are experiencing an increase of nausea, diarrhoea and vomiting due to this.

All new patients requiring treatment are being diverted to Edinburgh or Aberdeen children hospitals.

Pamela Joannidis asked if there was any admission screening carried out. Emma Somerville informed the group they only carry out screening on patients if they are symptomatic when admitted into hospitals. It was noted that to implement this would be a major undertaking for lab staff and would require excess funding. Pamela commented that being aware of what is in the patients GI tract on admission may lead to better prescribing choices and definitions of what is exogenous or endogenous infection.

Jenn Rodgers has requested an SOP should be written up by the IPCT outlining the requirements if a patient is moved out with Ward 6A for a period of time. This will give clear guidance for staff to follow and implement anything required before patient is moved.

**Gillian
Bowskill
and T
Inkster**

Risk Management/Control Measures - General

A list of all the control measures that have been put in place and the date in which they started is to be compiled to outline the measures this group has taken.

Estates

Biocide dosing of the chilled beams is to be introduced next week. It was agreed that samples of the water within the chilled beams will be taken before and after the implementation of the biocide.

Estates

New mechanical connectors will be fitted to the chilled beams as soon as possible. It was originally going to be carried out during the next time the chilled beams clean was due but this has been brought forward.

Estates

A revised Standard Operating Procedure (SOP) regarding the cleaning of the chilled beams is to be sent to Dr Inkster

Estates

It was agreed that the public toilets outside Ward 6A including the disabled toilets are to be closed to prevent patients using them.

Estates

Increase the chlorine dioxide currently at 0.5 parts per million (PPM) to a dose of 0.7 PPM. Regular contact with water experts say that we are using the best technology available to deal with organisms in the water.

Estates

The DSR sink within Ward 6A cannot have a point of use filter fitted to it so estates have ordered a new sink and IPS panel to accommodate a tap in which one can be fitted. In the meantime while awaiting on the delivery of these items estates are to come up with a plan on how domestics can get access to filtered water for cleaning within Ward 6A.

Estates

HEPA filtration units are to fitted to the every patient en-suite. Tom Steele informed the group that these units are made to order and has requested confirmation on the final number required for Ward 6A.

Estates

Further Investigations Required

Estates are working on a timeline of the event of when the boiler pressure was lost and also the increased condensation from the chilled beams and map this against the patient timeline.

Estates

Tom Steele has also asked for the unfiltered water within the DSR to be tested as well as the DSR within the PICU.

Tom Steele is to see if we have got a point of use filter fitted to the tap within the DSR within PICU, RHC.

Estates

Healthcare Infection Incident Assessment Tool (HIIAT)

Severity of illness – MODERATE

Services – MAJOR

Risk of transmission – MODERATE

Public anxiety – MODERATE

The group agreed on an HIIAT score of RED.

The group discussed how they can justify why the Services section within the HIIAT is now a Major when it was reported as Moderate last week and there have been no new cases since 3rd August. The reason the group decided to change it was that the most vulnerable patients are being moved to hospitals across Scotland to obtain treatment as this has been going on since the start of August. The longer this is kept going the more pressure and impact other health boards and patients/families will incur.

Communications

Advice to Public

Lorraine Dick and Jenn Rodgers have been doing briefings to family and staff. A brief to update staff and patients is expected today and concern was given that they are giving them the same repetitive information. It was agreed that people still want information even if it is quite repetitive. Staff will require a briefing that is in written down so that they know what to say if asked by patients.

L Dick
J Rodger

Duty of Candour

No new patients have been identified.

Advice to Professionals

Clinicians are in regular contact with Edinburgh and Aberdeen colleagues regarding admitting new patients who have been diverted from Glasgow.

Media

Lorraine Dick will create a holding statement for the media

L Dick

HPS

Gillian Bowskill & Sandra Devine will complete the HIORT and send onto Annette Rankin from HPS.

AOCB

The group agreed that a peer review should be carried out of Ward 6A from someone who works in a similar ward (Great Ormond Street or Leeds Children Hospital). Dr Crighton will discuss this with Dr Jennifer Armstrong to see if this can be arranged as soon as possible. It was suggested that an estates representative could visit Great Ormond Street Hospital and see what they do in a technical aspect regarding their testing regime and see if it aligns with ourselves. In the interim Annette Rankin will organise for one of her colleagues from HPS to carry out a walk round of Ward 6A.

E Crighton

A Rankin

The group discussed what was going to be the deciding factor for when they can open ward 6A back open to new patients. It was agreed that with the introduction of the biocide to the chilled beams, mechanical fittings to be added to the chilled beams and no new gram negative bacteraemia within the ward in 4 weeks then the group will consider re-opening up the unit for new patients. This will be discussed at the next IMT.

The next IMT is on Monday 2nd September at 1400 in Room L2007, Level 2, Teaching & Learning Building, QEUH

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Friday 6th September 2019, 11:00
Level 9 Seminar Room (WS9-033), QEUH**

Present: Dr Emilia Crighton, Sandra Devine, Jen Rodgers, Lisa Ritchie, Tom Steele, Kate Hamilton, Kevin Hill, Scot Davidson, Dr Jairam Sastry, Dr Iain Kennedy, Prof Brenda Gibson, Jamie Redfern, Gillian Bowskill, Emma Somerville, Colin Purdon, Lorraine Dick, Dr Dermot Murphy, Peppi Valyraki, Kathleen Harvey-Wood, Ann Lang (minutes)

Apologies: Billy Hunter, John Mallon, Dr Shahzya Chaudhuy, Annette Rankin

		Actions
1.	Introduction	
	Dr Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
3.	Minutes of Previous Meeting	
	The minutes of the previous meeting were agreed as an accurate record with the following amendment:- Page 1, 2 nd para – will be reworded due to the comments received at the meeting. Page 2, last para should read – “...previous sewage leak and that case had been reported through the appropriate mechanisms.” Page 3, last para should read – “... epidemiology you can see patterns which are similar to Quarter 4 2016 in RHC.” Page 4, 1 st para should read – “... they report 4 acquired gram negative bacteraemias, which were CVC related, in the other category...”	
4.	Action Plan Update	
	Please see separate action plan.	
5.	Incident Update	
	<ul style="list-style-type: none"> • General situation statement <p>An SBAR from the Microbiologists was received detailing issues referring to the fabric of Ward 6A. It was agreed that this document be shared with the group.</p> <p>The IMT discussed the points raised in the SBAR and updated as follows:-</p> <ol style="list-style-type: none"> 1. <i>Air Changes</i> Tom Steele informed that the air change advice is 10 and 10 and we have achieved 3 and 2. 2. <i>Chilled Beam Technology</i> With regards to the comments on the chill beam technology this is not accurate as there is no UK guidance for this. Dr Harvey-Wood asked if Great Ormond Street have chilled beams and Kevin Hill said it would be helpful to confirm they do not have these. 	

		Actions
	<p>Dr Valyraki agreed to provide evidence that nowhere have these. It was noted that Ward 2A/2B will not have chilled beams. Dr Crighton said that Scottish guidance, SHTM031 states that chilled beams are acceptable Dr Ritchie and Dr Murphy commented that whilst SHTM may state that chilled beams are acceptable in hospital buildings, you would preferably not choose to fit chilled beams in clinical areas specifically where neutropenic patients are being managed; there fore interpretation of guidance is important. Tom Steele advised that this technology should not be deployed for these patients.</p> <p>On the SBAR it states that there is a build up of dust on the chilled beams which typically harbours skin organisms. These are requiring 6 weekly cleaning schedule, however they are not designed to be thoroughly cleaned in situ and will require removal under HAISCRIBE conditions to achieve.</p> <p>Tom disagreed with this statement and said that in terms of BMC mapping of cleaning the chilled beams this has been completely remapped.</p> <p><u>Infection Risks Associated with Chilled Beams</u></p> <p>a) <i>Water Source from Condensation</i> A condensation control programme is now in place to maintain the chilled water temperature above the environmental dewpoint.</p> <p>b) <i>Leaks from hot and cold circulating water</i> In terms of the leak Tom Steele does not believe there was a leak and the leaks would not have occurred from the chilled water circuit. If there was a leak this would have come from the hot water but anything in this would evaporate.</p> <p>c) <i>Dripping water</i> There should be no dew points or leaks and therefore there will be no drips.</p> <p>d) <i>The chilled beam water system has not been subject to the water quality management system through the water governance structures of the organisation</i> There is no requirement to monitor and maintain the chilled water system through the same governance procedures as domestic water systems. Chilled water is a closed, sealed system maintained under pressure. Leakage would be immediately evident.</p> <p>3. <i>Pressure cascade recommended pressure of 10 pascals positive pressure to corridor in SHTM</i> The area in and around Ward 6A was designed to be a general ward area and as such is not expected to be free of air infiltration from voids or risers. Dr Ritchie commented that, however, there are neutropenic patients being managed in a general ward – she was advised that there would be an appraisal of options.</p> <p>4. <i>HEPA filtration</i> Mobile HEPA units were installed in each of the bedrooms and Tom Steele reported that they have sourced a device that can be fitted above the ceiling.</p> <p>5. <i>Air sampling in the bathrooms has detected pathogenic fungi such as Aspergillus and Mucoraceous mould</i> The design of Ward 2A will be a HEPA filtered environment. A HEPA filtered unit has been fitted in the bathroom and another 20 units have been ordered and will be installed.</p>	P Valyraki

	Actions
<p>6. <i>Toilets – toilet plume is a risk as no toilet seat in place</i> Current infection control guidance in general wards does not support the use of toilet seat covers for cleanliness purposes but this has been completed.</p> <p>7. <i>Exposure to unfiltered water</i> Some of the taps did not immediately support the installation of PALL filters and had to be modified. These are now complete.</p> <p>8. <i>Ceiling: solid ceilings are required to both assist with positive pressure achievement</i> Suspended ceilings are acceptable in general ward settings. Ward 2A/B will be a fixed plasterboard ceiling.</p> <p>9. <i>Play Area - Play areas; there is no play area and communal toys are situated in the corridor</i> The toys were removed for a period of work to be carried out and an alternative area will need to be sought.</p> <p>10. <i>Door entry – no double door or pressure cascade</i> The area in and around Ward 6A was designed to be a general ward area and as such is not expected to be free of air infiltration from external sources, voids or risers.</p> <p>11. <i>Kitchen hand wash sink is a non compliant size and no POU filters</i> POU filter has now been installed</p> <p>12. <i>Prep room – stainless steel sink, not useable due to tap misalignment</i> This tap has been changed.</p> <p>Dr Ritchie asked what action with the SBAR was now it was agreed this would be sent back to the Consultant Microbiologist for comments/response.</p>	
<ul style="list-style-type: none"> • Patient report 	
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED] Kevin Hill stated that we need a timeline for this patient of where the patient has been and this is available from IPCT.</p> <p>Kathleen Harvey-Wood reported that they are awaiting the identification of the five organisms but a number of samples have been typed and found to be unique.</p> <p>With regards to the patients that have been transferred to Edinburgh and Aberdeen hospitals she commented that they have had no positive blood cultures. The group asked if this can be checked and confirmed.</p> <p>To date there has been 12 +1 (new) cases of gram negative bacteraemia. 3 patients remain as inpatients with one in the ward, one in Ward 4B and one in PICU</p>	<p>K Harvey-Wood</p>

		Actions
	<ul style="list-style-type: none"> Microbiology report 	
	<p>Professor Gibson said the new patient has been given Ciprofloxacin and there is concern from the ID physicians that the patients are not well with this. An ad hoc group was set up to look at anti fungal prophylaxis. Dr Crighton suggested that the ICDs make a clinical decision regarding the efficacy of the prophylaxis measure and Professor Gibson recommended that the ID physicians are included in the discussion. Kevin Hill confirmed that ICDs, ID physicians and the clinical team will decide the arrangements regarding Ciprofloxacin going forward.</p>	ICDs, ID, clinical team
	<ul style="list-style-type: none"> Other relevant reports 	
	<p>Gillian Bowskill informed that they carried out enhanced supervision this week. A couple of minor things were identified and these included dust on storage, contaminated patient lockers and cracked flooring but this is being repaired.</p> <p>The smell of damp was reported in the shower room of Room 26 and there is a tiny breach on the wall and floor of the shower room which Estates are fixing today. Colin Purdon advised that the shower hose is being changed today for a shorter version.</p> <p>There have been two hand hygiene audits carried out since the last IMT. The first Hand Hygiene audit score was 90% compliance and 100% opportunity and the second score was 100% compliance and 100% opportunity.</p>	
6.	Hypothesis Update	
	<p>Dr Crighton asked if we are still working on the chilled beams as the source. Tom Steele reported that in relation to the water drop from the ceiling e.g. the condensation and the leak this has been eradicated as both sources. Dr Murphy stated that the new patient case has evolved after these measures were put in place. As the patient was in [REDACTED] Jen Rodgers suggested testing this room again.</p> <p>Dr Ritchie suggested that it would be helpful to see an updated timeline of all cases to date, annotated with when the control measures were put in place and positive isolates identified. Dr Ritchie commented that when an incident hypothesis is agreed by the IMT then following the agreed intervention the hypothesis has to be tested to rule out or otherwise.</p> <p>A timeline for the new patient case and the work carried out by Estates will be created. It was agreed that Estates, Dr Kennedy and J Rodgers prepare this.</p> <p>With regards to the peer review from Great Ormond Street they have rolled out the use of Chlorhexadine impregnated dressings for lines. Dr Kennedy reported that the SAB Group discussed this. Eleanor Somerville confirmed that they use these dressings for the first 3 weeks for line insertion. Dr Kennedy informed that Renal does this for 6 weeks and suggested this is something to look at and discuss with Dr Pete Thomson, Consultant Nephrologist.</p>	<p>Estates</p> <p>Estates I Kennedy J Rodgers</p>
7.	Risk Management/Control Measures	
	<p>The review of chemo prophylaxis will take place.</p> <p>HEPA filtration units are to be fitted to every patient en-suite when received.</p> <p>To get confirmation from Edinburgh and Aberdeen hospitals that they have had no positive blood cultures from the patients that have been transferred by GGC.</p> <p>Estates to resample [REDACTED].</p>	

8.	Further Investigations Required	
	<p>Further investigations will be carried out regarding the new case.</p> <p>Sandra Devine agreed to ask Brian Jones and John Mallon if a spreadsheet can be created with the results from the water and air sampling and to do an interpretation of these listing time and place samples taken. Kathleen Harvey-Wood said to note that samples are sent to GRI for testing and this is not carried out at QEUH.</p>	S Devine
9.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment tool (HIIAT) and was classified as a red category.</p> <p>Severity of illness – Major Services – Major Risk of Transmission- Moderate Public Anxiety- Moderate</p> <p>2 Major + 2 Moderate = Red</p>	
10.	Communications	
	<ul style="list-style-type: none"> Advice to public 	
	<p>[REDACTED]</p> <p>[REDACTED]</p>	S Devine
	<ul style="list-style-type: none"> Duty of Candour 	
	<p>[REDACTED]</p>	
	<ul style="list-style-type: none"> Advice to professionals 	
	<p>Clinicians are in regular contact with Edinburgh and Aberdeen colleagues regarding admitting new patients who have been diverted from Glasgow.</p>	
	<ul style="list-style-type: none"> Media 	
	<p>Lorraine Dick informed that there has been press interest in relation to this as of today. Jen Rodgers and Dr Sastry agreed to do a briefing paper which can then be given to the families.</p>	J Rodgers J Sastry
	<ul style="list-style-type: none"> HPS/SG HAI Policy Unit (HIIORT) 	
	<p>HPS will inform Scottish Government.</p>	
11.	AOCB	
	<p>Kevin Hill said that agreement will need to be reached on when the ward can be reopened to new admissions. It was agreed to ask John Mallon to resample the rooms and to do environmental swabs.</p> <p>As the ward is currently closed to new admissions, Dr Ritchie asked what criteria has been identified/agreed by the IMT on which the ward would re-open. Dr Crighton advised that the ward will reopen when the remedial actions have been carried out, all sample results reviewed, HEPA filters fitted, a timeline created and the peer review by Great Ormond Street Hospital carried out.</p> <p>As the ward is closed Lisa Ritchie asked on what basis will the ward reopen. It was decided the ward will reopen when the remedial actions have been carried out regarding sampling and results, HEPA filters fitted, timeline created and the peer review carried out.</p>	S Devine

12.	Date time of next meeting	
	Once all the remedial actions have been carried out a further meeting will be arranged.	

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Friday 13th September 2019, 11:00
Level 9 Seminar Room, QEUH**

Present: Dr Emilia Crighton, Colin Purdon, Darryl Conner, Sharon Johnstone, Kirsteen Meikle, John Mallon, Tom Steele, Sandra Devine, Jamie Redfern, Dr Lisa Ritchie, Scott Davidson, Prof Alistair Leanord, Pamela Joannidis, Kevin Hill, Prof Brian Jones, Dr Iain Kennedy, Dr Milind Ronghe, Mark Dell, Dr Alison Balfour (present 11-12), Calum MacLeod (minutes)

Teleconference: Jenn Rodgers

Apologies: Prof Brenda Gibson, Gillian Bowskill, Patricia Friel, Dr Dermot Murphy, Dr Jairam Sastry, William Hunter, Sandra Higgins, Annette Rankin

Welcome, Apologies, Introductions

Dr Crighton welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

Minutes from the previous IMT held on 6th September were disseminated to the group and the following amendments were requested:

Page 2, 1st para – Dr Ritchie and Dr Murphy commented that whilst SHTM may state that chilled beams are acceptable in hospital buildings, you would preferably not choose to fit chilled beams in clinical areas specifically where neutropenic patients are being managed; there fore interpretation of guidance is important.

Page 2, Point 3 - Dr Ritchie commented that, however, there are neutropenic patients being managed in a general ward – she was advised that there would be an appraisal of options.

Page 2, point 5 – remove “The air testing that mould is referred to Tom Steele advised that he discussed this with John Mallon and he was not concerned at the level of counts”

Page 3, last para – Dr Ritchie asked what action with the SBAR was now it was agreed this would be sent back to the Consultant Microbiologist for comments/response.

Page 3, Patient Report, 1st paragraph:

[REDACTED]

Page 3, Microbiology Report, 3rd Line should read: An ad hoc group was set up to look at anti fungal prophylaxis.

Actions

Page 4, Hypothesis Update, 2nd paragraph – Dr Ritchie suggested that it would be helpful to see an updated timeline of all cases to date, annotated with when the control measures were put in place and positive isolates identified. Dr Ritchie commented that when an incident hypothesis is agreed by the IMT then following the agreed intervention the hypothesis has to be tested to rule out or otherwise.

Page 4, Hypothesis Update, 3rd paragraph: rolled out the use of Chlorhexadine impregnated dressings for lines.

Update on Actions:

Please see separate action plan.

Incident Update – Patient Report

To date there has been 12 confirmed cases of gram negative bacteraemia's with 1 possible case under investigation.

With regards to the 7 patients that have been transferred to Edinburgh/Aberdeen hospitals Dr Harvey Wood confirmed that no positive blood cultures have been reported from these patients to date.

Incident Update – Microbiology Report

Results from air sampling from room 6 in 6a (HEPA filter in shower room) should be available Tuesday/Wednesday next week.

Results from environmental sampling of the Beatson and 6a were negative for gram-negative bacteria.

Incident Update – Other Relevant Reports

Since the introduction of biocide to the cold water system of the chilled beams all water samples have been negative/clear.

Last two Hand Hygiene audits have scored 100% for technique and opportunities.

Epidemiology

Dr Kennedy introduced his epidemiology data with commentary from Prof Brian Jones and Prof Alistair Leanord.

The first data was an EPI curve of gram negative bacteraemia from blood cultures in paediatric haematology/oncology patients from July 2013 till July 2019. The data demonstrates numbers pre and post move to the new hospital. The graph was split into non environmental/environmental gram negative organisms. The EPI curve outlined peak positive blood cultures during the water incident in March 2018 and also an increase during the drainage incident of May 2018 within Ward 2A, RHC. Since moving to the Ward 6A the patterns of environmental gram negative organisms are the same compared to the counts when the ward was at the old Yorkhill hospital.

Micro

The second graph was ongoing surveillance data outlining the central line associated bloodstream infections (CLABSI) per 1,000 central line days. This was compared to Great Ormond Street Hospital and Cincinnati Children's Hospital rates which showed comparable rates. The graph demonstrates a downward trend over the last few years of CLABSI rates.

Senior Microbiologists Prof Brian Jones and Prof Alistair Leonard both agreed that from a microbiology point of view in their opinion Ward 6A, QEUH was microbiologically safe at this present time and IMT members accepted this position.

There have been no patient cases linked to any environmental sampling undertaken in relation to this gram negative incident that have been identified in any patient isolates. Results from clinical cases that have been able to be typed have been unique. The most recent identified patient could indicate a contaminated blood culture as three of the identified organisms are normal skin organisms.

Hypothesis Update

Dr Lisa Ritchie stated that there had been many hypothesis regarding this IMT and that for clarity each hypothesis should be mapped with actions undertaken for completeness.

The group clarified that the following two hypothesis are

1. Exposure to unfiltered water out with Ward 6A where there isn't a point of use filter
2. The chilled beams either leaking or dripping condensation onto patients.

To date we have not isolated anything from the environment that can be linked to the chilled beam technology. Interventions have been taken to minimise/eradicate condensation occurring and leaks from the chilled beams.

Risk Management/Control Measures - Patients

A draft appraisals options paper is being developed should an alternative accommodation to Ward 6A be required for this group of patients. This will be taken to senior executive management.

Kevin Hill

A review of patients currently on prophylaxis regarding this incident is to be undertaken by clinicians and Microbiologists.

Micro & Clinicians

Risk Management/Control Measures - General

The enhanced supervision was carried out by the Infection Prevention & Control Team as an assurance measure for the IMT members and weekly continuation of this was agreed for the foreseeable future.

IPCT

Further Investigations Required

A detailed review of the 13 cases (12 confirmed, 1 under investigation) is to be undertaken, including a full microbiological analysis and development of root cause analysis tools for each new case of positive blood cultures going forward.

Micro

A summary of all mitigating actions taken to date and a summary of all the epidemiology is to

IPCT

be collated and presented at the next IMT.

Discussion regarding if a Hydrogen Peroxide Vapour Clean (HPV) to be included for every discharge clean/terminal clean for all Ward 6A rooms. There is no requirement for a HPV clean to be undertaken as no evidence showing it would be effective for this incident.

Estate colleagues are going down to Great Ormond Street (GOSH) to have a walk round of their haematology/oncology unit. They will see what cleaning and testing regime they undertake within the unit and compare it with what we have currently in place.

Development of Standard Operating Procedures for obtaining regular samples of Water, Environmental and chilled beams are to be drawn up with the help of HPS.

Dr Lisa Ritchie has received GOSH ventilation policy which she will share with estates so that a comparison can be undertaken.

HPS/IPCT

L Ritchie

Healthcare Infection Incident Assessment Tool (HIIAT)

Severity of illness – MINOR
Services – MODERATE
Risk of transmission – MINOR
Public anxiety – MODERATE

The group agreed on an HIIAT score of AMBER.

Communications - Advice to Public

A holding statement will be prepared to support verbal communication to support staff and patients/families.

M Dell

Communications - Advice to Professionals

Dr Ronghe, Consultant Oncologist was the only clinician who attended the IMT from Ward 6A for a period of time. It was agreed that a separate meeting will be held with clinicians from Ward 6A on Monday 16th September where they can go over the evidence regarding the ward.

HPS

Pamela Joannidis will complete the HIORT and send onto HPS.

AOCB

Dr Scott Davidson has been in contact with a consultant microbiologist from Belfast regarding a peer review. The IMT is still to agree if this peer review is to go ahead as it is unclear what we are asking the clinician to look for. The decision on this peer review will be agreed once the clinicians have met on Monday.

IMT

The next IMT is on Wednesday 18th September at 1400 Level 9 Seminar room

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Wednesday 18th September 2019, 14:00
Level 9 Seminar Room, QEUEH**

Present: Dr Emilia Crighton, Dr Lisa Ritchie, Annette Rankin, Sandra Devine, Mark Dell, , Pamela Joannidis, Dr Iain Kennedy, Prof Brian Jones, Dr Alan Mathers, Kevin Hill, Jenn Rodgers, Sandra Higgins, Dr Scott Davidson, Jamie Redfern, Sharon Johnstone, Dr Shahzya Chaudhury, Anne Clark, Kirsteen Meikle, Calum MacLeod (minutes)

Apologies: Colin Purdon, Dr Kalliopi Valyraki, Dr Chris Deighan, Gael Rolls, Angela Johnson, Gillian Bowskill, Dr Jairam Sastry, William Hunter, Dr Alison Balfour, Alan Gallagher

Welcome, Apologies, Introductions

Dr Crighton welcomed everyone to the meeting, introductions were made and everyone was reminded of the confidentiality surrounding IMTs.

Minutes of the last meeting

Minutes from the previous IMT held on 13th September were disseminated to the group and the following amendments were requested:

Page 2, Incident Update, 1st para - To date there has been 12 confirmed cases of gram negative bacteraemia with 1 possible case under investigation. Also no positive blood cultures have been reported

Page 2, epidemiology, 1st para - Dr Kennedy introduced his epidemiology data with commentary from Prof Brian Jones and Prof Alistair Leanord.

Page2 : epidemiology, 3rd para, final sentence - The graph demonstrates a downward trend over the last few years of CLABSI rates.

Page 2, 5th para , 2nd line - There have been no patient cases linked to any environmental sampling undertaken in relation to this gram negative incident that have been identified in any patient isolates.

Page 2, epidemiology, 2nd para - compared to the counts when the ward was at the old Yorkhill hospital

Page 2, epidemiology, 4th para - in their opinion Ward 6A, QEUEH was microbiologically safe

Page 2, Incident Update, 1st para - 12 confirmed cases and 1 possible case under investigation.

Page 2, Other relevant Reports, 1st para – Since the introduction of biocide to the cold water

Actions

system of the chilled beams all water samples have been negative/clear.

Page 3- hypothesis update 2nd section – 1st sentence – add in Dr Ritchie stated that there would appear to have been many hypotheses considered by the IMT. It was clarified there are currently two hypotheses

Page 3 hypothesis - The group clarified that the following two hypotheses are

1. Exposure to unfiltered water out with Ward 6A where there isn't a point of use filter
2. The chilled beams either leaking or dripping condensation onto patients.

Page 3: risk management/control assurance measures general

Page 3, Further Investigations Required,

1st para detailed review of each case * 12 confirmed and 1 possible) to be undertaken,
d para - Discussion regarding whether a Hydrogen Peroxide Vapour Clean (HPV) to be included for every discharge clean/terminal clean for all Ward 6A rooms. This is an adjunct to terminal cleaning, whilst recommended in UK MDRO guidelines there is no requirement for such cleaning to be undertaken.

Page 4, Advice to Professionals – Dr Ronghe, Consultant Oncologist was the only clinician who attended the IMT from Ward 6A for a period of time. It was agreed that a separate meeting will be held with clinicians from Ward 6A on Monday 16th September where they can go over the evidence regarding the ward.

Page 4:Dr Ritchie has received a copy of the GOSH ventilation policy which she will share with estates so that a comparison can be undertaken)

Update on Actions:

Please see separate action plan.

Incident Update – Patient Report

To date there has been 12 cases of gram negative bacteraemia with 1 possible case (under investigation). All 12 confirmed cases are now clear of their gram negative bacteraemia infection.

Dr Shahzya Chaudhury reported that all patients are stable and none are giving any cause for concern.

The last case reported was a positive *Serratia marcescens* from a blood culture on 3rd September 2019 which was considered a non Hospital Acquired Infection using the national SAB definition.

Incident Update – Microbiology Report

Dr Ritchie sought clarification on whether the actions raised in an SBAR previously circulated by a group of NHSGGC microbiologists had been addressed and whether a further response from them had been received.

Dr Ritchie asked the chair if the IMT was going to discuss an email sent to her as chair and copied to some members of the IMT relating to environmental organisms. The chair confirmed that she had received the email from Dr Peters the day before. Chair's decision not to discuss the content of this email at the IMT.

A peer review of Great Ormond Street Hospital was discussed. Annette Rankin sought clarification on the scope of this review.

Prof Brian Jones stated that the median rate of CLABSI is now lower than it has ever been before as detailed in the documents issued for the meeting. Annette Rankin raised that there has been a reported reduction in gram positive but not gram negative and therefore CLABSI rates may not be the best indicator for an IMT called in response to issues related to gram negative/environmental organisms.

Prof Brian Jones reported that some of the organisms found in Ward 6A were also found in the Schiehallion Ward at Yorkhill hospital. In 2018 there were 24 patients with positive gram negative organisms from blood cultures. It was noted however a number of these cases were a result of the water & drain incidents during 2018. In 2019 so far there have been 11 cases.

Dr Alistair Leanord and Prof Brian Jones informed the IMT that Ward 6A is microbiologically safe and the safety of patients being moved to other health boards needs to be discussed. Not all members of the IMT agreed with this statement (Annette Rankin & Dr Lisa Ritchie)

Epidemiology

The group asked about the rates of all bacteraemia's within RHC and if these are found in any other areas. Prof Brian Jones commented that these organisms will be present throughout the environment.

HPS SBAR

The SBAR distributed by HPS was discussed and comments were received regarding the clarity of the data. The graph Figure 3 within the report refers to count of blood positive cultures; the figure is followed by narrative about comparisons in the rate of infection. It was felt that it would be useful to have the rates data displayed as well. Lisa Ritchie agreed to take an action to speak with HPS colleagues regarding the addition of the rate data within the report and re-issue an updated report.

Dr Ritchie raised the matter of clinicians who were now being presented with 2 differing microbiological opinions and what was being done to support what would appear to be an 'impasse'.

HPS

Risk Management/Control Measures - Patients

██████████ who are scheduled for admission to Ward 6A will be discussed tonight with ██████████ health boards regarding possible transfer. The clinical decision regarding the safety of these patients being transferred to another health board was discussed whether to keep them in GG&C or transfer the patients. There is the potential of sending patients to other health boards who may not have the same facilities which are present in GG&C with regards to ventilation.

Risk Management/Control Measures - General

Lisa Ritchie requested what assurances will be put in place within Ward 6A until Ward 2A/2B, RHC is re opened. Sandra Devine informed her that enhanced supervision is to be continued by the Infection Control team once a week. Central line infection triggers have been put in place so that if these are reached then appropriate action will be taken. Also there is a development of Standard Operating Procedures with regards to future testing regimes of water, air handling and chilled beams with the help of HPS colleagues, in order to monitor the patient environment. HPS requested a note on the triggers once agreed by NHSGGC be shared with HPS

Access to a disabled toilet within an OPD clinic which has been highlighted in Ward 6A patient pathway requires a point of use filter fitted to the tap.

Facilities confirmed that all work within the ward is complete apart from the installation of the en-suite HEPA filters which we are currently awaiting delivery.

Estates

Healthcare Infection Incident Assessment Tool (HIIAT)

Severity of illness – MINOR

Services – MINOR (chair has recommended that we are ready for new admissions depending on confirmation of the data that has been circulated to the IMT)

Risk of transmission – MINOR

Public anxiety – MODERATE

Members of the IMT agreed on an HIIAT score of GREEN. Dr Chaudhury commented that she would rather consult with her consultant colleagues relating to the HIIAT and the ward accepting new admissions. It was noted the HIIAT score was the chairs decision and the chairs decision was to score it GREEN.

Further analysis of the epidemiology will be carried out by splitting the cases of gram negative and gram positive bacteraemia over the past 5 years. This data along with the CLABSI data being used as a denominator will enable Prof Brian Jones to compile an analysis. If the data presented comes back different the recommendation by the chair to re-open the ward may be revoked.

The meeting was then paused at 17:45 to allow NHSGGC to review some further data which will influence the decision on the ward re-opening. A number of IMT members were unable to stay and left the meeting. These members included Dr Ritchie, A Rankin, & Calum MacLeod who left.

Communications

Advice to Public

Ongoing advice given to patients and relatives.

Advice to Professionals

After Mondays meeting with the clinicians there was no consensus to accept the information to reopen Ward 6A to new admissions.

A meeting to discuss prescribing antifungal and other relevant prophylaxis for patients is to be arranged where Prof Jones will attend for Microbiology along with a representative from BMT, Haematology and an oncology clinician. Prior to this meeting background information surrounding this IMT will be shared.

J Redfern

HPS

Pamela Joannidis will complete the HIIORT and send onto HPS.

AOCB

A teleconference will arranged for Friday morning to discuss the progress of the actions agreed from today's meeting and confirm the decision to reopen ward 6A for the care of new admissions and high risk patients.

**NHS Greater Glasgow & Clyde
NHS Greater Glasgow & Clyde**

**Teleconference to discuss Ward 6a Status
20th September 2019**

Attendees: Emelia Crighton (EC), Alan Mathers (AMM), Kevin Hill (KH), Scott Davidson (SD), Pamela Joanidis (PJ), Jen Rodgers (JRo), Jamie Redfern (JR), Iain Kennedy (IK), Sandra Devine (SDe), Tom Steele (TS), Annette Rankin (AR), Laura Imrie (LR)

Apologies: No apologies submitted

Purpose of Teleconference

After introductions EC confirmed with all on the call the purpose of today's teleconference.

She noted it as an action from IMT Wednesday 18/9/2019 & for further discussion on recommendation made at said IMT meeting to lift all restrictions on Ward 6a. It was also an opportunity to prepare for meeting on Monday 23/9/2019 where the recommendation would be discussed in more detail with the Consultant team.

Update from Estates visit to Great Ormond Street Hospital (GOSH)

TS updated on initial feedback from Estates visit to GOSH. He summarised the visit focused on comparisons between QEUH and GOSH in regards to ventilation and water systems /control measures. All were informed that a report of the visit would be written up and circulated for comment next week.

Data in support of lifting Ward 6a

JRo and IK circulated a power point presentation to all which outlined the current data set around infection rates linked to Ward 6a. After discussion IK was to amend the slide which showed different types of infections in the haematology oncology population 2013/14 to present date. Amendment to show actual numbers of each infection by year. JR would submit information on Bone Marrow Transplant activity over this time period to review impact fluctuation in the number of cases completed over time had on bed day activity / occupancy. Further updates on the positive / negative infections split by environment / non environment to be provided (noting BJ remained unhappy with the classification being used for environment / non environment). JRo and IK to finalize slides and submit to EC for approval and then onward circulation to wider Consultant team ahead of the meeting.

HPS Report

AR to confirm when the HPS SBAR September 2019 report on comparisons between QEUH, RHSC Edinburgh and Children Hospital, Aberdeen to be updated. On receipt this will be circulated to IMT members including all consultants in Haematology Oncology.

Future IMTs

PJ described how the NHS Board would trigger a new IMT if there were further problems with infections in Ward 6a once restrictions lifted. She noted each infection

would have Root Cause Analysis (RCA). She also concluded that PAG/ IMT would be triggered if 2 cases of the same infection were identified within a 2 week period. HPS colleagues queried whether this was sensitive enough to identifying any future problems. They thought cognisance should be given to the number of infections being identified irrespective of type. PJ agreed to provide a written document for comment on how a future IMT would be triggered for comment and approval based on discussion.

Case Reviews

PJ confirmed she was still working through the individual case reviews with BJ and on completion a summary report on each case would be circulated to all for information. This would include the last case of child who had multiple infections reported but was thought to include contaminant samples.

Estates Work

TS confirmed all Estates work linked to the IMT / lifting of restrictions to the Ward had been completed. In addition he reaffirmed the further works in 6 weeks time for fitting of hepa filtration units in the on-suite rooms in the Ward. JRo noted this work was not required for restrictions to be lifted as previously discussed at IMT meetings. TS also noted tap fittings for outpatients in RHC would be completed next week. Again, it was noted this estate work was not linked to lift on restrictions to IMT.

IMT HIART

HPS colleagues noted Government officials concerned that the latest IMT had reported Green. Specific concern on score for public anxiety and disruption to service. JRo explained the level of detail the IMT had gone into for these two ratings. HPS colleagues agreed to feed this back to Government noting it was based on the final recommendation that the Ward was lifting all restrictions.

Option Appraisal

KH noted an option appraisal paper was currently with EC, Board Medical Director and Chief Executive Officer. This paper would be used through the IMT / service to agree business continuity plans if further problems with Ward 6a infections occurred. HPS colleagues agreed to update Government on this.

Current use of other hospital providers

[REDACTED]

Air Sampling / Infections

JR asked if there was a summary of air sampling results which could be shared with the wider consultant team for Monday's meeting and also whether there was any concerns about air borne infections in the patient population during the period IMT had been running. BJ/ IK to review and update on any results available. PJ confirmed

this incident is not related to airborne infections.

External Peer Review

Matter not discussed. Refer to last IMT meeting for update.

Conclusions

EC summarised all discussions / actions. She then asked each member of the call on an individual basis if they had any concerns and were in agreement with the IMT recommendation to reopen 6a to new and high risk patients based on the data and advice given. All present on the call raised no concerns and agreed with the recommendation.

Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Tuesday 8th October 2019, 16:00
Level 4 Seminar Room (WS4-027), QEUH

Present:

Dr Emilia Crighton
Lorraine Dick
Gillian Bowskill
Jenn Rodgers
Jamie Redfern
Kevin Hill
Pamela Joannidis

David MacDonald
Dr Dermot Murphy (*attended meeting to 16:55*)
Emma Sommerville (*attended meeting to 1830*)
Sandra Devine
John Mallon (*attended meeting to 2005*)
Dr Jairam Sastry
Dr Chris Deighan
Dr Iain Kennedy
Tom Steele
Annette Rankin
Dr Lisa Ritchie (*attended meeting to 1905*)
Angela Howat
Prof Alistair Leanord
Prof Craig White (*attended meeting to 1920*)

Lesley Shepherd

Head of Health Service, Public Health
Senior Press Officer
Lead Infection Control Nurse, Paediatrics
Chief Nurse, Paediatrics
General Manager, Women & Children's
Director, Women & Children
Acting Associate Nurse Director, Infection Control
Facilities Manager
Consultant Oncologist
Senior Staff Nurse
Acting Infection Control Manager
Technical Services Manager, Diagnostics
Consultant, Paediatric
Deputy Medical Director
Consultant, Public Health
Director of Facilities/Estates
Nurse Consultant, HPS
Nurse Consultant, HPS
Senior Charge Nurse
Consultant Microbiologist
Divisional Clinical Lead in the Healthcare Quality and Improvement Directorate
Professional Adviser, Scottish Government

In Attendance

Calum MacLeod (minutes)

Apologies received:

William Hunter Dr Alan Mathers Prof Brian Jones Dr Scott Davidson
Sandra Higgins Dr Valyraki Kalliopi Prof Brenda Gibson

		Actions
1.	Introduction	
	Dr Emilia Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned. Prof Alistair Leanord will be acting as the Infection Control Doctor during this meeting.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
	Minutes of Previous Meeting	
	Amendments received from Annette Rankin in relation to the notes from the teleconference held on 20 th September 2019. These notes will be updated and re-circulated to the group. Amendments received from HPS in relation to the minutes of the last IMT held on 18 th September 2019. These minutes will be updated and re-circulated to the group. Lisa Ritchie requested that final copies of all minutes be circulated.	

		Actions
3.	Action Plan Update	
	Please see separate action plan.	
4.	<p>Incident Update</p> <p>Dr Iain Kennedy spoke briefly about the IMT process regarding the water, drain and increase in gram negative bacteraemia rates. This was to inform Prof Craig White, who has been appointed by Ms Freeman Cabinet Minister for Health and Sports, to review families concerns and act as a single point of contact for families about issues in relation to:-</p> <ol style="list-style-type: none"> 1. Infection Control Measures 2. Work underway in haematology/oncology areas of the hospital 3. Intended outcome and timeline of the enhanced safety measures which the board has put in place. <p>The Chair raised an SBAR submitted to the IMT by Dr Christine Peters and Dr Teresa Inkster which discusses gram negative blood stream infection data and recommends the IMT discuss the data as part of their overall investigations and analysis of the infections in this patient cohort. National recommendations are also made in this SBAR including:</p> <p>Consideration be given to include other environmental Gram negatives associated with biofilm and potential water sources, including triggers for actions from IPCTs be included in Chapter 3 of the National IPC Manual and Pseudomonas guidance. Consideration be given to the HAI definition of haem/oncology patients (frequent attendance associated with interventions such as line flushes/therapy); should these be similar to haemodialysis patient SAB surveillance.</p> <p>Dr Chris Deighan discussed the following problems with this proposal:</p> <ol style="list-style-type: none"> 1. Hospital Haemodialysis patients are attending dialysis units three times per week. As a result they will rarely have been out with a healthcare facility with use of their dialysis access (fistula or line) for longer than 72hrs and twice a week it will be less than 48hrs. Dr Deighan understanding is that although the haematology/oncology population are frequent attendees, they are not attending as frequently as this. Although he was happy to be corrected on this by his haemato-oncology colleagues. 2. They are also very different populations in terms of co-morbidities and level of immune-suppression with the paediatric haematology/oncology patients having a much greater level of immune-suppression and therefore infection risk (including from their gut) compared with a hospital haemodialysis cohort, where very few will be on any active immunosuppressant. 3. Dr Deighan does not think this IMT or GG&C should be classifying HAI or HCAI differently from other Health Boards otherwise it will be impossible to benchmark / compare rates with other units across the country. Any change in definition would need to be agreed nationally and at the same time otherwise there would be a clear risk of a unit being an outlier purely on definition rather than due to infection rates or infection control issues. <p>Dr Kennedy informed the group that there was an agreed case definition at an IMT on the 23rd August 2019 which read</p> <ul style="list-style-type: none"> • Any patient with a bloodstream infection from an organisms whose source is water or soil i.e. environmental organisms. • Patients who have a positive Blood Culture as described above and have contact with Ward 6A or supporting services (excluding Ward 4B) in the past month. 	

4.	Incident Update	Page 375 Actions
	<p>This broad case definition was used to enable the IMT to try and capture everything. It was discussed that the case definition may need to get refined for this incident moving forward.</p> <p>It's a recommendation nationally that further the work on revision of Chapter three of the National manual and the Pseudomonas guidance to include other environmental Gram negatives associated with biofilm and potential water sources, including triggers for actions from IPCTs</p> <p>Lisa Ritchie stated that review of case definition should be a standing IMT agenda item continually being reviewed.</p>	HPS

	Patient Report	
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	<p>The IMT were sent an updated patient listing; Gillian Bowskill went over the [REDACTED] possible cases to get an agreement if each met the case definition:</p> <p>[REDACTED]</p> <p>[REDACTED] The IMT agreed this is a confirmed case.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>Dr Sastry reported that patients 14 and 15 are still in-patients and reported they are well, and causing no concern as a result.</p> <p>The case total is 15 confirmed plus 1 possible case.</p> <p>The IMT discussed that all these patients had received ciprofloxacin antibiotic which is used to prevent gastro/gut organisms translocation and not to prevent infections related to the environment as the ciprofloxacin blood levels are too low.</p> <p>The root cause analysis of 12 confirmed and 1 possible case has not been completed. Pamela Joannidis suggested that one of the previous cases should be taken off the timeline [REDACTED] as they had not been in the hospital in the 30 days prior. Dr Kennedy informed the group it was agreed that this was not a case at a previous IMT.</p> <p>There was [REDACTED] patient which was reported to HPS where Annette Rankin brought up but the IMT agreed this case would be discounted due to patient being in Ward 4B and not Ward 6A and having an organism that was out with the case definition.</p>	
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Patient Report	Actions
<p>Prof Craig White asked if these [REDACTED] will be included in the cohort of parents/guardians who will be receiving correspondence from the NHS Greater Glasgow and Clyde Chief Executive and Chair. Kevin Hill confirmed that these will be included in the communications sent out. All families that are active within the service will be communicated with.</p> <p>Lesley Shepherd said it would be useful for a Multidisciplinary Team (MDT) to carry out the root cause analysis of all new cases going forward. Pamela Joannidis to make a formal request for MDT to be set up with clinicians (medical and nursing staff) from Haematology/oncology to carry out root cause analysis (RCA) of all the confirmed/possible cases related to this IMT. The main focus would be origin of infection, route of entry and mode of transmission.</p> <p>The result of RCA carried out to date show the most common factors to be:</p> <ol style="list-style-type: none"> 1. patient received an episode of healthcare within the last 30 days 2. the patient has a line in situ <p>Pamela confirmed the RCA pro-forma would be sent to HPS.</p> <p>Jenn Rodgers informed the group that Ward 6A had been trialling a new line cap from the 19th August 2019 for one month. Feedback from the trial has been positive and the new caps have been ordered and will be implemented for patient line care within Ward 6A. Lisa Ritchie asked if this was ever considered a hypothesis in this incident and also where did this intervention lie on the timeline?</p> <p>Pamela Joannidis reported it is proving very difficult going back to check patient notes for RCA as they are fragmented. Pamela Joannidis is to complete RCA with the narratives of lessons learned. Pamela will discuss with consultants going forward and meet with clinicians to discuss any new cases moving forward.</p> <p>Iain Kennedy informed the group that there had been one previous case of <i>Delftia acidovorans</i> in 2017 where the blood culture was taken in Ward 2B.</p>	<p>P Joannidis</p> <p>P Joannidis</p>
Microbiology report	
<p>Annette Rankin will ask Laura Imrie from HPS to contact Dr Kennedy regarding providing the data used to generate a paper sent to HPS from Dr Teresa Inkster and Dr Christine Peters. Dr Iain Kennedy has yet to look at the numbers/data used for this report.</p> <p>Prof Alistair Leanord will request sequencing of all blood cultures positive for enterobacter as this is the highest number of infections numerically (approximately 50 in total). This may identify any relationships between cases and/or evidence of clusters. The Labs will check whether they have samples dating back to 2016. Sequencing can take about a month to 6 weeks until results will be available. Annette Rankin requested that where possible any retrievable water samples also be considered for sequencing.</p> <p>Dr Kennedy spoke about the recent water sampling results which gets reported through the Water Technical Group. These water samples are taken throughout the two main hospitals (QEUH & RHC) to see if the chlorine dioxide solution is correct and also to check for any organisms. Dr Kennedy noted he had not received the full details of the results, but was reviewing an update of the Facilities results tracker. In August water sampling showed a small number of outlets positive for coliforms. There were no E-coli present, demonstrating that the water was not contaminated with human waste. Some of the coliform counts were extremely small, but others were higher. There was a mix of locations including adult and children's estate and facilities, as well as one of the recovery areas within RHC Theatres. All outlets have since been re-sampled and have had multiple negative samples There were two further outlets testing positive in September, re-sampling results not yet on the results tracker. Dr Kennedy said that in public water supplies you get very low coliform results with no e-coli present, which usually demonstrate either a dirty tap or sampling error, and these situations are not indicative of poor water quality.</p>	<p>I Kennedy</p> <p>Labs</p>

	Microbiology report	Actions
	<p>It was also noted that there were some positive result for Delftia acidovorans and Stenotrophomonas maltophilia. These will be discussed further at the next water technical group meeting to be held on Friday. Dr Iain Kennedy will link with Pamela Joannidis to see if there was any cross over from positive water samples to any of the patients.</p> <p>Tom Steele asked if the lab could carry out routine swabbing of the chilled beams before the 6 week clean period to see if anything has grown. Prof Leanord said this would change the existing hypothesis as we would then be saying this is an airborne transmission and not a water borne transmission as there is no leakage from the chilled beam.</p> <p>Environmental testing of the chilled beams to be carried out consistently in a specific area over a period of time to give reassurance and confidence that the 6 weekly cleans are not required. Tom Steele reiterated that nothing grown from swabs of the chilled beams has ever been found on any of the patients. Water sample testing of the chilled beam cooling system identified a positive of pseudomonas olivarans which could lead to potential growth. The system has since received biocide which has been tested and coming back negative. Prof Leanord said that as microbiology will not be looking for anything specific within the environmental testing it will be harder to identify anything. He said there will always be organisms throughout the environment as we do not work in sterile environment. We are trying to normalise this and bring it back to the IMT saying there has been a run of negative environmental results and to check if the 6 weekly cleaning of chilled beams should still be required and if a less frequent cleaning schedule could be implemented.</p> <p>Prof Leanord spoke about the recent results of air sampling within Ward 6A bathrooms which he reported to be acceptable. Dr Sastry asked about the high counts reported from the nurses' station as when previously speaking to Dr Teresa Inkster this was considered a high count. Dr Leanord informed the group that you have to take into account what was happening at the nurses' station when these tests were undertaken. Prof Leanord raised that air sampling taken within a general area can often be difficult as there is often a lot of activity or personnel in the area at the time which can impact on the results. It was requested that any future samples should record any activity/number of people at the area. Lesley Shepherd asked if we are discounting the counts at the nurses station why are we testing the area in the first place. It was agreed that the IMT were not discounting the counts and reported the aim was to test the HEPA filters within the patient rooms and also the patient en-suites. It was agreed that air sampling at the nurses station will be re-tested as portable HEPA filters are placed throughout the corridors from some of the samples.</p>	<p>I Kennedy P Joannidis</p> <p>Labs</p>
5.	Hypothesis Update	
	<p>It was agreed that the hypothesis surrounding the chilled beams can be closed as all control measures in relation to this have now been addressed and put in place. Ongoing air sampling and swabs of the chilled beams is now in keeping with IPCT drawn up procedures.</p> <p>Any recommendation to re-open the ward to new admissions and high risk cases has not been implemented as clinicians obtained and agreement from the CEO for a peer review of the microbiological data. HPS have been commissioned to undertake an independent review following a meeting with the Scottish Government/Chief Nursing Officer/Greater Glasgow & Clyde Health Board/Health protection Scotland and Heath Facilities Scotland and this would commence once the data has been received by HPS.</p>	

	Hypothesis Update	Action
	<p>Annette Rankin asked the IMT to consider alternative hypothesis as there has been 3 cases that fit the case definition since the last IMT.</p> <p>A further hypothesis could be that there has been a break in IPC precautions put in place in addition to exposure to an unknown water source.</p> <p>Dr Kennedy asked that the root cause analysis of the three new patients should be complete before any new hypothesis can be explored.</p> <p>Another possible hypothesis discussed was</p> <ul style="list-style-type: none"> • Patient exposure to organisms may occur when a patient is not within the QEUH campus in which we cannot control <p>Annette Rankin asked if there were any other patient groups who were being reported with these unique organisms particularly within other vulnerable paediatric patient groups, particularly if an external source is being considered as the haem/onc patient cohort are unlikely to have a different external exposure. Dr Crighton advised that such organisms are diagnosed across a variety of settings in NHSGGC as demonstrated at a previous meeting and an Excel spreadsheet data is available demonstrating this. This will be shared with the IMT.</p> <p>Dr Deighan raised that a paper from HPS showing that the overall number of infections compared to other health boards was relatively similar although the pattern of organisms might be different. Prof Leonard said that he believes this is not a typical outbreak and in his opinion like a pseudo-outbreak – possibly the first described in the world. Prof Leonard asked if HPS had identified any similar situation from the literature.</p> <p>Lesley Shepherd said that from her observation clinicians seemed to have a lack of confidence in the clinical environment, despite the Infection Control measures put in place, new cases are still being reported and there is a dichotomy in the microbiology opinion. Dr Crighton said that there is agreement that a number of infections that are not related and do not have a common source are seen; and their rate was comparable to the other Scottish Units.</p> <p>Dr Crighton advised of a new hypothesis related to biofilms proposed by Dr Inkster. Prof Leonard advised of the great difficulties separating sources originating in biofilm or the general environment (like picking organisms when walking outside).</p> <p>The group agreed to await the outcome of RCA before generating other hypothesis. The RCA will be completed as soon as possible.</p>	
6.	Risk Management/Control Measures	
	<p>Dr Sastry requested an update on the kitchen status in Ward 6A which was reported on the 27th September by Dr Christine Peters. The kitchen remains out of use since a leaking tap was found within the kitchen. The leak was found by a staff member when water was spotted on the floor in front the fridge. The following actions were immediately put into place:</p> <p>Fridge removed Damp area cleaned with Actichlor Any soft material/uncovered items in the kitchen were thrown out Room was sealed off with signage to prevent entry Room was put under negative pressure HAI Scribe was undertaken on Tuesday to get the broken tap replaced and all wet wall materials removed New components have been ordered for the kitchen (Kick plate, units, chipboard) that will take about 2 weeks to arrive. Jenn Rodgers to agree communications with relatives.</p>	

	Risk Management/Control Measures	
	<p>Upon further inspection the leak was from a tap that was fitted to the kitchen on the 30th August. The suspected corrosion of the pipe work was confirmed as sawdust that had stuck to the pipe from the water leak. This tap was replaced so that it was compatible with a point of use filter to be fitted. Annette Rankin raised that in previous IMT's the only water source exposure to patients without a point of use filter had been the DSR, chilled beams and out with Ward 6A. Annette Rankin asked what reassurances do we have that no other taps are leaking. Tom Steele informed Annette that they rely on visual inspection of any leaking taps. As for leaks behind IPS panels it would be a major undertaking in checking behind the IPS panels for leaks as there is about 120 water outlets in every ward. Sandra Devine asked if this was a proportionate action and also that this might have unintended consequences i.e. further disruption to the ward. The group agreed that this would not be done at this point in time. If the integrity of the wall and ceiling is intact then there is no evidence of water seepage through the water ingress. This will be confirmed when the new plasterboard is replace to the wall. Estates already carry out a weekly walk round of Ward 6A which also allows them to see/be informed of any possible leaks from taps or other water outlets within Ward 6A.</p> <p>Tom Steele would like to ask IPCT colleagues to see how the kitchen can be put back into use as soon as possible. This kitchen is used to store patient food but since the leak a patient room is being used to store the fridge. Angela Howat reported of a new stain appearing on the floor of the kitchen floor was reported. This will be investigated and an update at the next IMT.</p> <p>Dr Sastry raised that there have been numerous incidents every week since moving to Ward 6A. Tom Steele advised that the maintenance work is proactive and the increased frequency of cleaning and upgrading of ward facilities leads to the perception of problems.</p> <p>There is a meeting with clinicians on Thursday 10th October to discuss the current use of Prophylaxis within the patient population of Ward 6A. Lesley Shepherd commented that patients are widely exposed to the environment as they are not confined to their rooms, they are children and want to play. Exposure to patients in the last 30 days when staying at Clic Sergeant or Ronald McDonald house is to be included in the Root Cause Analysis.</p> <p>IPCT are to continue their weekly enhanced supervision and weekly hand hygiene audits. Monthly hand hygiene audits are also carried out locally by ward staff. Peer audits relating to line access have also been carried out</p> <p>Gillian Bowskill discussed today's enhanced supervision visit which highlighted a seal that needs replaced within a patient en-suite, small amounts of dust present within the prep area and some areas of the ward flooring required cleaning. Angela Howat informed the group that one of their domestics had left and not been replaced. Angela Howat also informed the group that their domestic was having trouble in obtaining a T3 floor cleaning machine. David MacDonald will look into the domestic cleaning hours and also the use of the T3 machine. Gillian Bowskill also reported that hand hygiene was 100%. Jenn Rodgers informed the group that staff have also been monitoring patients' parents hand hygiene as well as the majority of care is given by parents.</p>	<p>D MacDonald</p>

7.	Further Investigations Required	Page 38 Action
	<p>It was suggested by the Chair not to look into any new hypothesis until RCA has been complete – by next IMT.</p> <p>Each patient receives a booklet on how to care for their lines at home. Jenn Rodgers will look into the contents of this booklet to see if it is worth reviewing based on lessons from RCA.</p> <p>Jamie Redfern gave a briefing on the service since the last IMT on 18th September 2019:-</p> <ul style="list-style-type: none"> - Working out of 5 cubicles instead of 4 within Ward 4B BMT. This is not permanent. - [REDACTED] - [REDACTED] - Jamie Redfern informed the group that bed pressures continue throughout health boards in Scotland. There is a consideration that new patients may be sent to England for health care. This in turn, may mean that other solutions which were drafted by the Executive team may need looked into. <p>Mr Kevin Hill advised of the early signs of winter pressures affecting the hospital (RSV infections), that would be present elsewhere too.</p>	J Rodgers
8.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment tool (HIIAT) and was classified as AMBER.</p> <p>Severity of illness – MINOR Services – MODERATE Risk of Transmission – MODERATE</p> <p>Dr Chris Deighan and Dr Leanord said it should be minor as three potential new cases all being different organisms, assuming all transmission is within QEUH environment. Annette Rankin & Lesley Shepherd think it should be moderate as the route of transmission is still unknown. The IMT agreed that if this was marked as minor or moderate the outcome will still be an amber score.</p> <p>Public Anxiety- MODERATE</p>	
9.	Communications	
	<ul style="list-style-type: none"> • Advice to public 	
	<p>Due to the current time of the meeting (20:00) Lorraine will create a holding statement with her colleagues for the media.</p> <p>Key messages: we are investigating █ new cases; all patients well and causing no concern; different organisms and there we no links identified to the hospital environment. The holding statement will be agreed via email.</p> <p>A Facebook update will also be required for Ward 6A Facebook page used by families of patients who have children being treated at Ward 6A.</p>	L Dick
	<ul style="list-style-type: none"> • Duty of Candour 	
	Jenn Rodgers will speak to the three families who have been confirmed as new cases.	

		Action
	<ul style="list-style-type: none"> • Advice to professionals 	
	Jamie Redfern and Jenn Rodgers will update staff tomorrow morning with the outcomes of this IMT.	
	<ul style="list-style-type: none"> • HPS/SG HAI Policy Unit (HIIORT) 	
	Pamela Joannidis will complete the HIIORT tomorrow morning and send onto HPS.	
10.	AOCB	
	Nothing was raised.	
11.	Date time of next meeting	
	The next meeting will take place on Friday 11 th October 2019 at 1.00pm.	

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Friday 11th October 2019, 13:00
Level 4 Conference Room (GWS-008), RHC**

Present:

Dr Emilia Crighton	Head of Health Service, Public Health
Dr Scott Davidson	Deputy Medical Director
Sandra Devine	Acting Infection Control Manager
Pamela Joannidis	Acting Associate Nurse Director, IPC
Gillian Bowskill	Lead Infection Control Nurse, Paediatrics
John Mallon (left @ 1505)	Technical Service Manager, Microbiology
Kevin Hill	Director, Women & Children
Mark Dell	Press Officer
David MacDonald	Facilities Manager
Tom Steele (left @ 1530)	Director of Facilities/Estates
Emma Sommerville	Senior Charge Nurse, Ward 6A
Jamie Redfern	General Manager, RHC
Annette Rankin	Nurse Consultant, HPS
Jenn Rodgers	Chief Nurse, Paediatrics
Dr Iain Kennedy	Public Health Consultant
Alan Gallagher	Head of Corporate Estates
Dr Shahzya Chaudhury (Arrived @ 1350/left @ 1505)	Consultant Paediatric Haematologist

In Attendance

Calum MacLeod (minutes)

Apologies received:

William Hunter	Dr Dermot Murphy	Prof Brian Jones	Prof Alistair Leanord
Sandra Higgins	Dr Chris Deighan	Prof Brenda Gibson	Gael Rolls
Dr Alan Mathers	Dr Jairam Sastry		

		Actions
1.	Introduction	
	Dr Emilia Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned. Dr Crighton said that the purpose for today's meeting was to go through the complete Root Cause Analysis (RCA) compiled by Pamela Joannidis, Gillian Bowskill and Ann Kerr. This extra ordinary IMT will not follow the IMT's standard agenda as no control measures/investigations or HIIAT score will be carried out.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
3.	Minutes of Previous Meeting	
	Dr Crighton said that the minutes from Tuesday's IMT (08/10/19) will be looked over at the next IMT when the group have had enough time to review them. Can any comments/changes requested regarding the draft minutes from 8th October be emailed to [REDACTED] A43255563	

		Actions
	Action Plan Update	
	This will be reviewed at the next IMT	
4.	<p>Incident Update</p> <p>Pamela tabled the paper at the meeting and went through the Root Cause Analysis (RCA) of 17 gram negative blood cultures involving 15 paediatric haematology/oncology patients in the RHC , GG&C from 13th April 2019 – 1st October 2019. This root cause analysis was undertaken to determine where possible, the source and route of transmission and portal of entry for a range of gram negative bacteraemia.</p> <p>Annette raised that HPS have not been involved in the development of or that the RCA proforma was not shared with HPS. Pamela Joannidis reported that she sent the initial proforma to HPS on the 7th of August. Annette stated that what was sent was a line listing of cases in response to a request for information from the HAI policy unit and was not an RCA proforma reviewed by HPS. Pamela informed the group that the proforma was based on one provided by HPS for a previous incident from 2015..</p> <p>The group carrying out the RCA used numerous IT systems to collate this data including clinical portal, ICNet, Koala Term, Trakcare and also spoke to nursing staff and clinicians within the ward to make sure they hadn't missed anything.</p> <p>The following definitions for classification to determine if a case would be deemed a Hospital Acquired Infection (HAI) or Health Care Associated Infection (HCAI) were followed</p> <p>HAI: Blood culture positive more than 48 hours after admission as per national SAB definition.</p> <p>HCAI: Positive blood culture obtained from a patient within 48 hours admission to hospital and fulfils one or more of the following criteria: IV, or intra-articular medication in the 30 days prior to the positive blood culture being taken, but excluding illicit drug use OR regular user of a registered medical device e.g. intermittent self-catherisation, home CPD or PEG tube with or without the direct involvement of a healthcare worker.</p> <p>Pamela will add the proforma used for this RCA to the SBAR.</p> <p>The biggest risk factor found between all patients was having a central line. Insertion of these lines range from 8 days to over 600 days before blood culture was obtained. Access to these lines took place in numerous areas out with Ward 6A, QEUH like OPD ground floor RHC, Beatson oncology unit, Ninewells Hospital, Raigmore Hospital, Edinburgh Children's Hospital, Clic Sergeant and the patients home.</p> <p>The current case definition without an environmental source makes analysis of this quite challenging.</p> <p>Sandra Devine asked Annette Rankin the definition of healthcare does that necessary link all this to a specific place. Patients come in and out so 48 hour would not apply so the HCAI rule would apply.</p> <p>Annette Rankin said that instead of looking back would it not be better to look forward and using the existing case definition. The RCA is not about principally determining if a patient is an HAI/HCAI case but identifying any common source, link, route of transmission.</p> <p>Kevin Hill said what we learn going forward should come from the RCA from previous cases.</p> <p>Dr Kennedy informed the group that it is not unheard of for who is a case and who is not a case to alter over the course of an IMT as case definition is refined and more detailed case reviews take place.</p>	<p>P Joannidis</p>

4.	Incident Update	Actions
	<p>Pamela went through each individual patient case where she spoke about each patients pathway. The group discussed and agreed that based on the information tabled at the meeting some of the cases could be discounted as cases. The following patients were agreed to be taken off as from the information provided on today's paper they do not fir the case definition:</p> <p>██████████ ██████████ ██████████</p> <p>It was noted that this patient has been discounted as case at previous IMTs.</p> <p>A revised RCA will be drawn up with a revised case list.</p> <p>Jenn Rodgers asked how do we deal with patients linked to other sites do we need members of the IMT to inform other health boards regarding this?</p> <p>Jenn Rodgers asked if other health boards test their own water for these organisms in which Annette informed the group that this is a local decision and boards are most likely to undertake testing if there was a clinical indication to do so.</p> <p>Dr Crighton will ask Dr Alistair Leanord to look at one of the cases ██████████ within the RCA as a possible contaminant.</p> <p>Jenn Rodgers asked if it would be relevant to identify where patients have been when not within the RHC/QEUH environment. Pamela has focussed on just where patients lines have been accessed. Pamela asked if this background information regarding where patients live/frequent relevant to the IMT? . It was agreed that HCAI cases will be looked into further regarding where patients have frequented. Also more detail is required regarding every line access within the patient pathway.</p> <p>Tom Steele noted that many patients frequent Clic Sergeant house which is situated very close to the QEUH/RHC campus. The reason patients stay in Clic Sergeant house is to let them out of a health care environment for a period of time. Clic Sergeant would have their own water supply from the water mains.</p> <p>Tom Steele asked if pseudomonas putida which was reported in QEUH environmental sample at the water technical group had also been found in the testing of the public water supply. General water testing carried out within the QEUH campus involves additional analyses compared to the water tested within the public domain where they check/regulate that the water standards meet required drinking water regulations.</p> <p>Dr Davidson asked if there were patients that demonstrated an elevated CRP in relation to the underlying illness (as can be the case in other situations such as patients with lung cancer). It was important to look at trends in CRP as well as actual CRP level at any single time point as levels of CRP response will differ between individual patients.</p> <p>Pamela pointed out while during the case note review a patients CRP at point of blood culture taken is subsequently low then once antibiotics and bloods have been taken CRP has risen. Should we be collecting CRP information. Rather than take it out of the RCA use a clinical indication why CRP isn't being used</p>	<p>P Joannidis</p>

4.	Incident Update	Actions
	<p>With these cases now being taken off the overall numbers of cases Jamie Redfern asked what the relevance between HAI and HCAI to the decision we made to close Ward 6A to new admissions. Prior to beginning of August 2019 there were 2 HAI cases reported. The chair questioned whether this was considered an incident. Annette Rankin stated that collectively this team formed an IMT, agreed a case definition and on a regular basis agreed case numbers. If retrospectively this was thought to be the wrong decision this should be considered when a de-brief meeting is arranged after this incident is closed.</p> <p>Pamela said that the amount of specimens and access to lines patient receives is very high. This has changed a bit due to prophylaxis has increased but historically patients have always had high line access. Peer line review audits have been very good with no indication regarding line practice.</p> <p>The findings from the RCA may generate new Hypothesis. More detail regarding the patient pathway and the numerous environments the patient have frequented should be looked more in depth.</p> <p>We are not excluding patients who are HCAI.</p> <p>Annette asked if GG&C were seeing a replication of environmental/unusual gram negative bacteraemia elsewhere within RHC. It was noted by the IMT that there are gram negative bacteraemias in other patient groups in paediatrics and adults and the proportion of these infections in haematology/oncology population is relatively stable in most years. These patients are unique given their underlying condition and treatment, meaning these infections are seen more often. Patient journey is different as well with Clic Sergeant is only for haematology/oncology patients.</p> <p>The IMT agreed to carry out the extended RCA for HCAI cases where we might pick up a possible alternative hypothesis as patients may have potential link to a commonality between each other.</p> <p>Overall 13 cases are still under review (3 taken off as not cases, 1 case to be reviewed by Dr Leanord as possible contaminant)</p>	
	Other Relevant report	
	<p>Annette asked how water results from the water technical group are being reported into this IMT group? HPS attend this meeting on quarterly basis but the group meet up every month. The Water technical Group is a sub group of the IMT and results should be reported to the IMT regularly. To date there has been no results reported to the IMT from this group. We have put point of use water filters on every water source that Ward 6A patients may come in contact with as a preventative measure through water source.</p> <p>The Water Technical Group meet on a monthly basis and receive a monthly spreadsheet tracker of results, there is no real time reporting of water results. The Water Technical Group was set up as a sub group of this IMT to come up with solutions regarding Ward 2A/2B incidents regarding water and drains. The Terms of Reference for this group were set up before this IMT was established. The meeting is held every month with representation from HPS and HFS attending quarterly. Mary Ann Kane (Associate Director of Facilities) is the current Chairperson of this group. Previously Dr Inkster was the liaison between the water technical group and the IMT. It was reported that that GG&C are finding the system is getting cleaner but still finding certain types of bacteria. Currently no Microbiologist sits on the Water Technical Group that also sits on the IMT.</p>	

4.	Incident Update	Actions
	<p>In terms of water sampling these water samples in which a huge number are being undertaken (about 2500 samples since July) where about 8 have had positive coliform result which amounts to about 0.3%. Comparing these to patient pathway, only one of these is where a possible case outlet overlap which needs to be confirmed. This is an area where point of use filters are already in place. All the coliform positive results from August had multiple repeat negative tests. Results of repeat sampling of the two outlets with positive coliform results in September were still awaited.</p> <p>With regards to the reporting process from the Water Technical Group into this IMT the following questions were asked:</p> <ul style="list-style-type: none"> • What we do when we get a positive result? • What are we actually testing for within the water system? <p>The chair asked if results should be discussed with Scottish Water. Facilities reported that the Water Technical group have already got UK experts in their field and what they are telling us is that the water is safe.</p> <p>Kevin Hill said that the reality is that water testing out with hospital campus will have organisms within it. NHS GG&C do not have any control over this. We have control over the facilities they manage and have worked with national advisers to determine if the water is safe to use. MHS GG&C consider the water to be safe in terms of Ward 6A environment, due to point of use filters being used but the patient pathway is showing numerous trips to the Beatson for treatment before being returned to Ward 6A the same day.</p>	
5.	Hypothesis Update	
	<p>Dr Crighton asked the group that looking at the 3 most recent cases what is the possible hypothesis? Pamela Joannidis said it was difficult to ascertain as she does not have an incubation period of these organisms so it is difficult to see when these patients could have picked these up.</p> <p>One common factor found during the Root Cause Analysis were that patients go to Beatson for radiotherapy on a regular basis and return to Ward 6a the same day. These paediatric patients get anaesthetised when receiving treatment as it is harder for staff to keep them still while receiving treatment compared to adult patients.</p> <p>Annette Rankin has asked for more detail in the mapping of patient movements to include periods of time when they were at home/Clic Sergeant/other healthcare areas within the 30 days agreed period before their positive organism</p> <p>It was questioned that these organisms could be coming from sources of water out with GG&C control i.e. Clic sergeant or their own home. Water testing of these outlets could be arranged but GG&C would not have remit in introducing control measures out with their jurisdiction. It was agreed not to proceed with this.</p> <p>RCA to identify further areas for the past 30 days of when and where patient was at and when they had their line was accessed. Sandra Devine said what would the controls be if we find positive water samples out with the hospital campus?</p> <p>Below are three new proposed hypothesis in relation to this incident:</p> <ol style="list-style-type: none"> 1. Internal water breach 2. External exposure to unfiltered water 3. Change in ecology due to selection pressures 	

	The independent HPS data review is due for completion on 25 th October 2019.	
		Action
8.	Healthcare Infection Incident Assessment Tool (HIIAT) & HIORT	
	<p>Not carried out due to this being an extra ordinary IMT.</p> <p>No HIORT will be required to be completed today. Annette Rankin will verbally update the Scottish Government later on this evening reporting no new cases and a further review of cases is underway.</p>	
11.	Date time of next meeting	
	<p>Since this was an extra ordinary IMT a proper IMT will be arranged for next Friday 18th October. Jamie Redfern will ask the clinicians when the best time/date suits them and liaise with Calum MacLeod about arranging a suitable time.</p>	

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Friday 25th October 2019, 11:00
Seminar Room, Level 9, QEUH**

Present:

Dr Emilia Crighton
Lorraine Dick
Gillian Bowskill
Jamie Redfern
Kevin Hill
Pamela Joannidis

Angela Howat
Sandra Devine
Dr Iain Kennedy
Tom Steele (left @ 1404)
Annette Rankin
Dr Lisa Ritchie
Prof Alistair Leanord
Sandra Higgins
Graeme Forrester
Darryl Conner
Jenn Rodgers
Sharon Johnstone
Dr Milind Ronghe (left @ 1320)
Gerry Cox (left @1230, returned @ 1300, left @ 1404)
Dr Elizabeth Chalmers (Left @ 1230)
Dr Scot Davidson (arrived @ 1230)

Head of Health Service, Public Health
Senior Press Officer
Lead Infection Control Nurse, Paediatrics
General Manager, Women & Children's
Director, Women & Children
Acting Associate Nurse Director, Infection Control
Senior Charge Nurse
Acting Infection Control Manager
Consultant, Public Health
Director of Facilities/Estates
Nurse Consultant, HPS
Nurse Consultant, HPS
Consultant Microbiologist
Service Manager Microbiology
Deputy Head of Board Administration
Estates Duty Manager
Chief Nurse, Paediatrics
Deputy Site Facilities Manager
Consultant Paediatric Oncologist
Assistant Director of Estates & Capital Planning
Consultant Paediatric Haematologist
Deputy Medical Director

In Attendance

Calum MacLeod (minutes)

Apologies received:

Prof Brian Jones John Mallon Lesley Shepherd Dr Chris Deighan
Dr Jairam Sastry Dr S Chaudhury Dr Dermot Murphy Prof Brenda Gibson
William Hunter

		Actions
1.	Introduction	
	Dr Emilia Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
	Minutes of Previous Meeting	
	The minutes of the last two meetings which were held on 8 th October and 11 ^h of October were looked over for accuracy and amendments were received from HPS and other members of the IMT. A43255563	

		Actions
3.	Action Plan Update	
	Please see separate action plan.	
4.	Incident Update	
	<p>Pamela Joannidis went over the revised Root Cause Analysis (RCA) which was an action from the last IMT. The revised RCA looks more in depth into patient pathway using the chain of infection model to try and understand the reservoir of bacteria and what the route of transmission can be. All specimens taken were blood stream infections taken from central lines of patients apart from one. If anyone has any comments regarding this revised RCA can you please send them to Pamela.</p> <p>New hypothesis complexity of patient pathway as patients are not in Ward 6A for their entire stay. Patients are more inclined to receive day passes so they can attend school/family events in which NHS GG&C have no control over the environment they attend.</p> <p>Kevin Hill suggested going forward can we record when the patient arrives and when they leave Ward 6A/Ward 6A Day Care for future reference. This is recorded on Trakcare but there are inaccuracies with this data when put onto Trakcare. Pamela said that it is not really how long the patient stays within day care but what the patient does within the day case unit. Angela Howat confirmed that no day case patients shower within the day care unit of Ward 6A.</p> <p>Further investigation regarding the leak in Ward 6A kitchen found that it originated from within the hydro unit rather than the connection of the tap. Initial inspection indicated that the connection fitting had failed but the hydro foil unit has been identified as the initial leak.</p>	
	Patient report	
	<p>There are currently [REDACTED] confirmed patient cases currently in Ward 6A and Ward 4B.</p> <p>Gillian Bowskill informed the IMT that no new cases have been reported since the 1st of October 2019.</p> <p>The IMT were informed by clinicians that [REDACTED] patients are well and giving no cause for concern.</p>	
	Microbiology report	
	<p>Regular sampling is carried out regarding the chlorine dioxide dosing of the water system. Dr Kennedy has not been informed of any new coliform failures. Dr Kennedy spoke to a colleague within Scottish Water Public Health team about recent coliform result. The view of the colleague from Scottish Water was that these results do not indicate an issue with integrity of the water system and may be due to immediate tap hygiene, lab issues or in their view most likely a problem with sampling.</p> <p>Discussion regarding what recommendation(s) should be given to patients when they are out with NHS GG&C facilities will be taken up externally. It was suggested that we should find out what other health boards advise regarding similar patient population.</p> <p>Scott Davidson discussed the recent meeting with clinicians held on 19th October regarding the use of Ciprofloxacin as prophylaxis. It was agreed that out patients and day case patients should not receive any prophylaxis. Implementation of this is to be agreed. Dr Davidson will forward report onto Calum MacLeod to disseminate to the IMT.</p>	Dr Davidson

5.	Hypothesis Update	Actions
	<p>The new revised RCA is suggesting a new hypothesis relating to the smart site hubs. This would be considered by the IMT to see if this will be included. Suggested control measures in terms of this new hypothesis would be any part seen contaminated on the smart site would be removed and a new smart site would be used. Smart sites are already replaced every week. To test this hypothesis samples of smart sites will be taken. It was suggested that any contaminated smart sites should be taken off and sent away with the patients blood culture. An SOP will be created on how to take blood cultures on pyrexial patients and how the smart site should be taken off before being sent to the labs for testing together.</p> <p>Microbiologist Kathleen Harvey Wood carried out testing of the smart site hubs where she used saline to flush the smart sites. Kathleen will be contacted to see what protocols she used during her testing.</p> <p>Jenn Rodgers informed the group that the Quality Improvement has undertaken work with the clinical team to look to maximise the use of portacaths as a line option.</p> <p>Observation was made on patients using bottle water for brushing their teeth. It was unknown how long the bottle of water had been in use. Patients have been supplied with bottled water for the duration of the water incident. It was also in acknowledgment that families do not have a parents room and thus do not have access to a drinking water tap. The family kitchen has now been opened and the IMT agreed that the unit should switch from bottled water to filtered tap water with all existing water bottles to be removed from Ward 6A.</p> <p>Prof Leanord has seen nothing of any of concern from water samples from post filtered taps this week. Over 70 samples were taken on Monday all of the results will be investigated by Prof Leanord and Dr Kennedy when they are returned. A general water sample escalation process will be set up with Estates so that any positive samples received will be mapped against any positive patient cases. Environmental samples from the taps and filters were reviewed with nothing significant of note – most had no growth.</p> <p>Pamela is to expand the hypothesis regarding the water bottles within the RCA.</p>	<p>P Joannidis</p> <p>P Joannidis</p>
6.	Risk Management/Control Measures	
	<p>Hand hygiene audits have been 100% in the past few weeks.</p> <p>Gillian Bowskill said that recent enhanced observation of Ward 6a noted the following</p> <ol style="list-style-type: none"> 1. Few issues with dust under storage areas. 2. Flooring in one area of room was cracked 3. Bedrail not clean 4. Underside of mattress cover stained. <p>Senior Charge Nurse took action on all of these issues immediately and have been rectified.</p> <p>A parent sitting area has now been opened for parents to sit in.</p> <p>The ward kitchen has been reopened.</p> <p>The interview room within the ward is to be moved to a pod outside of ward. In turn this vacant interview room will be changed to a playroom for patients.</p>	

7.	Further Investigations Required	Action
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>The RCA reviewed 16 cases but from the revised RCA results it looks like preliminary 14 cases in total.</p>	
8.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment tool (HIIAT) and was classified as GREEN.</p> <p>Severity of illness – MINOR</p> <p>Services – MODERATE</p> <p>Jenn Rodgers informed the IMT that there is significant pressure regarding capacity in both Edinburgh and Aberdeen hospital's. Dialog around number of beds available for the paediatric population is underway with Regional Services (Ward 4B)</p> <p>Risk of Transmission – MINOR</p> <p>Public Anxiety- MINOR</p>	
9.	Communications	
	<ul style="list-style-type: none"> • Advice to public 	
	<p>Holding draft statement is to be compiled. Include news regarding the new parents room that is now open and a new play area which is currently being created.</p>	
	<ul style="list-style-type: none"> • Advice to Parents 	
	<p>The Chief Executive has sent out a letter to all patients parents within Ward 6A offering the opportunity to meet with them earlier individually or within a group. Some parents will be meeting the Chief Executive, Chairman & Cabinet Secretary for Health & Sport on Saturday the 2nd of November 2019. To date approximately 7 parents have confirmed their attendance.</p> <p>A document has been compiled with approximately 71 questions which are from parents regarding their concerns of Ward 6A, QEUH.</p>	
	<ul style="list-style-type: none"> • Duty of Candour 	
	<p>Nil to report as no new cases.</p>	
	<ul style="list-style-type: none"> • Advice to professionals 	
	<p>Notes of this meeting will be circulated to staff</p>	
	<ul style="list-style-type: none"> • HPS/SG HAI Policy Unit (HIIORT) 	
	<p>HPS will inform the Scottish Government.</p>	
10.	AOCB	
	<p>Nil to report.</p>	
11.	Date time of next meeting	
	<p>The next meeting will take place on Thursday 31st October at 10:00 in Hospital at Night Room, Level 2, RHC.</p>	

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Tuesday 5th November 2019, 14:00
Group Room, Clinic 12, Therapy Hub RHC**

Present:

Dr Emilia Crighton	Head of Health Service, Public Health
Pamela Joannidis	Acting Associate Nurse Director, IPC
Sandra Devine (left @ 1625)	Acting Infection Control Manager
Tom Steele	Director of Facilities/Estates
Jamie Redfern	General Manager, Women & Children's
Jenn Rodgers	Chief Nurse, Paediatrics
Gillian Bowskill	Lead IPC Nurse Paediatrics
David MacDonald	Facilities Manager
John Mallon (left @ 1605)	Technical Services Manager Microbiology
Dr Iain Kennedy	Consultant, Public Health
Lorraine Dick	Senior Press Officer
Laura Imrie (left @ 1640)	Lead Nurse Consultant, HPS
Dr Jairam Sastry	Consultant Paediatric Oncologist
Prof Alistair Leanord	Consultant Microbiologist
Prof Craig White	Divisional Clinical Lead in the Healthcare Quality and Improvement Directorate
Graeme Forrester	Deputy Head of Board Administration
Dr Dermot Murphy	Consultant Paediatric Oncologist
Dr Milind Ronghe (left @ 1500)	Consultant Paediatric Oncologist
Emma Sommerville	Senior Charge Nurse
Angela Howat	Senior Charge Nurse
Dr Shahzya Chaudhury (arrived @ 1430)	Consultant Paediatric Haematologist

In Attendance:







Calum MacLeod (minutes)

Apologies received:

Kevin Hill	Dr Scott Davidson	Sandra Higgins	Dr Chris Deighan
Prof Brenda Gibson	Dr Lisa Ritchie	Annette Rankin	Prof Brian Jones
William Hunter	Alan Gallacher		

		Actions
1.	Introduction	
	Dr Emilia Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
	Minutes of Previous Meeting	
	Minutes of the previous IMT held on 25 th October 2019 were discussed with amendments emailed to Calum MacLeod from Jenn Rodgers which were agreed. Minutes will be updated and sent out to the IMT.	

		Actions
3.	Action Plan Update	
	Please see separate action plan.	
4.	Incident Update	
	<p>Prof Alistair Leanord gave a presentation of the sequencing results of the Enterobacter blood stream infections from the RHC including the 3 samples from 2019.</p> <p>The overall conclusions from the sequencing were:</p> <ul style="list-style-type: none"> • No commonality between patients present • All Enterobacter were completely sporadic with no cluster association between them • No genetic linkage between all the Enterobacters within the whole of GG&C. <p>On the basis of this Prof Leanord said it was possible that these Enterobacter infections endogenous infections, that is coming from the patients' own gut flora. There was some discussion around why there has been an increase in numbers since 2016. Dr Murphy also highlighted that none of the newly diagnosed patients treated out with the NHSGGC unit had Enterobacter blood stream infections. The clinicians reported that the treatment protocol has not changed recently and therefore would not be considered a contributing factor.</p> <p>Discussion regarding the recent meeting between clinicians and Microbiology regarding the prophylaxis for paediatric haematology/oncology patients. During this meeting it was agreed that the routine use of ciprofloxacin should be stopped and Taurolock (Taurolidine), which is an antimicrobial that is used to try and prevent infections in central venous catheters, should be introduced. The implementation of this has not started as further discussion on how it will be administered with Standard Operating Procedures (SOP) are still requiring agreement.</p> <p>Sandra Devine will ask Elaine Burt to see if Renal adults have any SOP's relating to the administration of Taurolock.</p> <p>Dr Kennedy will liaise with Public Health Pharmacy colleagues to see if a Patient Group Direction (PGD) can be followed instead of a patient specific prescription. This will provide legal framework that allows registered health professionals to supply and/or administer specified medicines to a pre-defined group of patients without them having to see a doctor.</p> <p>No clinicians raised any issues with the current antifungal prophylaxis and the clinician team are confident in what this IMT are prescribing.</p> <p>Prof Craig White asked the IMT if an overarching summary/single document outlining the recommendations from the HPS report and what GG&C response to these recommendations have been agreed/not agreed and why.</p> <p>Prof White informed the IMT that the decision of re-opening Ward 6A will be agreed upon once all suggested measures have been put in place and it will be the Chief Nursing Officer that will have the final decision regarding the opening Ward 6A.</p>	<p>S Devine</p> <p>Dr Kennedy</p> <p>HPS</p>

Incident Update	Actions
<p>Laura Imrie stated that as patients would not develop immunity to the organisms under investigation and there was no evidence to suggest a single point of exposure the HPS review of data found no evidence to support the continued restriction on clinical services for newly diagnosed patients for Ward 6A, QEUH. There was discussion around the original decision for the control measure to restrict admissions. It was requested that it would be helpful if this was expressed in the HPS recommendations</p>	HPS
Patient report	
<p>There has been no Gram Negative Blood stream infections since 1st October 2019 Ward 6A has had a reduced clinical case load as not receiving any new diagnosed patients.</p> <p>Clinicians confirmed that none of the patients on the RCA are giving any cause for concern.</p>	
Microbiology report	
<p>Sample reports (please see files below) from the recent post filter water samples from Ward 6A were looked at by Prof Leanord who was content with these results. Dr Kennedy said these water results are pristine with very low to zero Total Viable Counts for the water.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  Ward 6A Water Result 21/10/19 </div> <div style="text-align: center;">  Ward 6A Water Result 22/10/19 </div> <div style="text-align: center;">  Ward 6A Water Result 23/10/19 </div> <div style="text-align: center;">  Ward 6A Water Result 24/10/19 </div> </div> <p>Recent results of environmental sampling of shower heads were also shown to the IMT along with air sampling results – please see below.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  Ward 6A Air Test Result 30/10/19 </div> <div style="text-align: center;">  Ward 6A Environmental Resu </div> </div>	
Other Relevant Reports	
<p>Gillian Bowskill reported on the most recent Hand Hygiene audit which scored 95%.</p> <p>Ward 6A most recent Infection Control audit scored 94% which is a gold score.</p> <p>Gillian Bowskill noted that when parents are entering/exiting the new parenting room hand hygiene compliance was very poor. It was agreed that regular parent education regarding hand hygiene and general infection control precautions will be carried out for parents.</p>	IPCT

5.	Hypothesis Update	Action
	<p>HPS and Prof Leanord discuss and agree a statement regards the reporting and monitoring of Enterobacter cases</p> <p>The IMT will test the smart site hypothesis from the Root Cause Analysis. Patient samples are to be taken from non-infected, confirmed infected and suspected infected patients for a period of time (time period still to be agreed). Pamela Joannidis will disseminate the draft SOP regarding how to take blood cultures on pyrexial patients and how the smart site should be taken off before being sent to the labs for testing together</p>	
6.	Risk Management/Control Measures	
	<p>A meeting has been provisionally set up for the 14th of November to finalise the Root Cause Analysis and action plan response with HPS, Infection Control Management & Scottish Government.</p> <p>To date (05/11/19) twelve rooms have had their HEPA filters fitted into their en-suites with the rest being completed by the next week. While installation of these HEPA filters is being carried out a visual inspection (including photographs) of behind the IPS panels is being undertaken. To date there has been no evidence of leaks and all areas have been dry.</p> <p>No HEPA filter has been installed into Ward 6A Day Care Unit. Tom Steele has ordered an additional 20 HEPA filters for any areas that may require this in the future.</p> <p>Every new patient diagnosed with a gram negative blood stream infection will have a full multi disciplinary team look into the case. A data collection form has been drawn up by the Infection Control Team to capture all the necessary data. Triggers will be put in place regarding the environment rates of infection. A monthly report will be produced and will be sent onto the clinical team by the IPC team.</p> <p>A planning group is to be established with Jamie Redfern & Clinicians to discuss practical steps required to be undertaken in regards to re-opening of Ward 6A.</p>	<p>J Redfern/ Clinicians</p>
7.	Further Investigations Required	
	<p>HPS and Prof Leanord are to discuss the Genetic sequencing methodology. They will also agree the implications of this with regards to removing these patients from their report. Laura Imrie stated that from an epidemiological point of view she would recommend that a selective inclusion criteria is not sound methodology when measuring a patient population over time.</p>	<p>A Leanord HPS</p>
8.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment tool (HIIAT) and was classified as GREEN.</p> <p>Severity of illness – MINOR Services – MODERATE Risk of Transmission – MINOR Public Anxiety- MINOR</p>	

9.	Communications	Action
	<ul style="list-style-type: none"> <li>• Advice to patients/parents 	
	<p>Lorraine Dick will create an update for tomorrow morning outlining that the playroom is currently closed due to parents requesting extra socket points being installed.</p> <p>Prof White Craig said least risky way for this IMT to inform all parents/patients would be for a letter to be issued to the parents. Currently awaiting decision from directors who attended the meeting regarding Ward 6A. A communication strategy is to be developed for patients/parents and the public in anticipation of the ward being re-opened.</p> <p>It was noted that some families are distressed as to why some patients are being treated differently, but this is due to different patient groups.</p>	Senior Team & Comms
	<ul style="list-style-type: none"> <li>• Duty of Candour 	
	No new cases.	
	<ul style="list-style-type: none"> <li>• Advice to professionals 	
	Staff will be updated by management.	
	<ul style="list-style-type: none"> <li>• HPS/SG HAI Policy Unit (HIIORT) 	
	Gillian Bowskill will complete the HIIORT tomorrow morning and send onto HPS.	
10.	AOCB	
	Dr Crighton congratulated Ward 6A haematology/oncology on their recent achievement at the Chairman's award ceremony.	
11.	Date time of next meeting	
	The next meeting will take place on Monday 11 ^h November with venue and time to be confirmed.	

**DRAFT Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Monday 11th November 2019, 16:15
Level 9 Seminar Room, QEUH**

Present:

Dr Emilia Crighton	Head of Service, Public Health
Sandra Devine	Acting Infection Control Manager
Pamela Joannidis	Acting Associate Nurse Director, IPC
Tom Steele (left @ 1805)	Director Facilities/Estates
Jamie Redfern	General Manger, Women & Children's
Jenn Rodgers	Chief Nurse, Paediatrics
Gillian Bowskill	Lead IPC Nurse Paediatrics
Graeme Forrester	Deputy Head of Board Administration
Lorraine Dick	Senior Press Officer
Dr Scott Davidson	Deputy Medical Director
Prof Craig White	Divisional Clinical Lead in the Healthcare Quality and Improvement Directorate
Angela Howat	Senior Charge Nurse
Emma Sommerville	Senior Charge Nurse
Kevin Hill (left @ 1750)	Director Women & Children's
Dr Iain Kennedy	Public Health Consultant
Prof Alistair Leanord (left @ 1820)	Consultant Microbiologist
Annette Rankin (left @ 19:15)	Nurse Consultant HPS
Dr Dermot Murphy (arrived @ 1630)	Consultant Paediatric Oncologist
Dr Shahyza Chaudhury (left @ 1800)	Consultant Paediatric Haematologist
Dr Jairam Sastry (left @ 1715)	Consultant Paediatric Oncologist
Dr Alan Mathers (arrived @ 1700 left at 1750)	Chief of Medicine Women & Children

In Attendance:

Calum MacLeod (minutes)

Apologies Received:

Prof Brian Jones	Prof Brenda Gibson	Laura Imrie
Lesley Shepherd	Sandra Higgins	Dr Chris Deighan
John Mallon	Sharon Johnstone	David MacDonald
Darryl James Conner		

		Actions
1.	Introduction	
	Dr Emilia Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	

3.	Minutes of Previous Meeting	Action
	<p>Minutes of the previous meeting held on 5th November 2019 were discussed with the comments/amendments received from Laura Imrie (HPS) discussed and agreed upon.</p>	
4.	Action Plan Update	
	<p>Please see separate action plan.</p>	
5.	Incident Update	
	<p>An updated draft report from HPS was sent out to the IMT. Dr Davidson asked if this can be shared with previous IMT chair Dr Inkster which was agreed. Due to the timing of the release of the updated report members of the IMT have not had time to read over it. Prof Craig White noted that the requested amendment, as noted in the IMT minutes on 5th November is not reflected in the updated HPS draft report. Dr Davidson will contact Laura Imrie tomorrow to see if this can be rectified.</p> <p>Dr Kennedy has contacted Public Health Pharmacy with regards to the introduction of Taurolock within Ward 6A. The proposed Patient Group Direction request would not be suitable as only certain staff groups can work under a PGD. HCSW/Phlebotomists will not be allowed to administer Taurolock under a PGD as Taurolock is a drug and it is not regulated for them to give to patients. Dr Davidson will contact Janice Watt in pharmacy to see if she has any suggestions moving forward.</p> <p>A Ward 6A re-opening bundle has been created following a meeting with management and clinicians. An action plan highlighting elements that require to be in place before the ward is reopened, from a managerial point of view, has been created and will be taken forward.</p>	<p>Dr Davidson</p> <p>Dr Davidson</p>
	Patient Report	
	<p>A possible new patient case has been identified [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>Pamela Joannidis will arrange for the patients smart site to be sent away for testing as well as agreed in the last IMT that any new GNB will have their smart site sent away with their blood culture for testing.</p> <p>There are currently no patients involved with this IMT giving any cause for concern.</p>	<p>P Joannidis</p>

	Microbiology Report	Action
	No new results since last IMT.	
	Other Relevant Reports	
	<p>Pamela Joannidis and Health Protection Scotland are meeting up on 14th of November to go through the Root Cause Analysis (RCA) and action plan.</p> <p>Prof White requested that following from this meeting can any lessons learnt be sent onto himself so he may include them in his report.</p>	
6.	Hypothesis Update	
	<p>Laura Imrie has requested that the water leak in Ward 6A kitchen should be included as a hypothesis. Pamela Joannidis informed the group that samples from the water does not match anything that has been grown from the patients within Ward 6A. Pamela Joannidis will include this as a possible hypothesis into the RCA. It was noted that this may be a weaker hypothesis than others, as the possible chain of infection is less clear, and that the necessary control measures for this hypothesis have been completed.</p> <p>Prof White requested that the detail under each hypothesis should be developed /expanded more. This will assist anyone who may review this list if everything is explained in their full entailment.</p>	P Joannidis
7.	Case Definition Review	
	<p>The case definition has been updated which now states :</p> <ul style="list-style-type: none"> Any patient with a bloodstream infection from an organism who's source is water or soil i.e. environmental organisms. <p>During the last IMT on 5th November 2019 a decision was taken to exclude the Enterobacter cloacae cases as endogenous, based on the outcome of investigations by Professor Leanord.</p> <p>Annette Rankin raised her concerns about removing an entire organism from the case definition but this was based on the genetic sequencing from Prof Leanord.</p> <p>Prof Leanord stated that new enterobacter cases would have to be considered as they occur, and would not be automatically excluded.</p>	
8.	Risk Management/Control Measures	
	Prof White said there was media interest as only 70 out of the original 71 questions raised at the recent parent meeting with the Chairman and Chief Executive have been answered. The question that was not answered was in relation to infection rates throughout Scotland. Prof White has written to all families saying the response to this question will be available as soon as possible.	

	Risk Management/Control Measures	Action
	<p>Discussion regarding the introduction of a Hydrogen Peroxide Vapour (HPV) cleans being carried out on top of a discharge clean already being carried out for every patient discharge of Ward 6A. Jamie Redfern said this would give a re-assurance to parents/patients that this IMT is using everything in its power to prevent further infections. There is a lot of disruption surrounding HPV cleans with regards the amount of time the room will be out of use. There is also the possibility that if any member of the public were to see someone in the ward wearing the protective suits required for HPV cleans they may come to a conclusion that there is another problem within the ward.</p> <p>Prof Leanord said that HPV cleans would only be effective if this IMT had identified the source of these GNB or a commonality/linkage with the organisms. As the source is still unknown and there is no one organism but a variant of numerous GNB organisms it is unlikely HPV clean would be effective and not worth implementing. HPS did a literature review in 2016 regarding HPV cleans a few years ago but would support this IMTs decision either way. It was also questioned that if the numbers of infections were to rise again then this IMT would not have anything new to bring in to combat this. Other interventions which are less disruptive like using UV lights could also be looked into further if required.</p> <p>It was agreed that HPV cleaning would not be introduced at the current time, but that in different circumstances such as a single organism or point source outbreak, it would be considered.</p> <p>Prof White said that creating a dialogue instead of carrying out technical interventions could be used for re-assuring patient families.</p> <p>Visible elements like the increased portering service to the ward along with an extra Band 7 Nurse is being introduced. The proposed introduction of a housekeeper for Ward 6A is being considered. Ongoing surveillance methods with regards to water/air sampling can also be used to re-assure parents.</p>	
9.	Further Investigations Required	
	<p>It was agreed that an annual review of all microbiology data for all haematology/oncology patients across Scotland would be helpful going forward. .</p>	
10.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as GREEN.</p> <p>Severity of illness – MINOR Services – MODERATE Risk of Transmission – MINOR Public Anxiety - MINOR</p>	

11.	Communications – Advice to Parents/Patients	Action
	<p>Letters to all parents will be sent out once the decision to re-open the ward is confirmed.</p> <p>A list of all the control measures that have been put in place should be added onto Ward 6A Facebook page. Graeme Forrester said it would be a good idea to include measures like HPV cleans which have been considered but not implemented and the reason why they may not be carried.</p> <p>All different actions from the draft briefing note of meeting with families on the 2nd of November if being taken forward.</p> <p>A draft SBAR on how we plan to re-open Ward 6A with a proposed timeline is to be sent to Prof White and Lesley Shepherd by Thursday 14th November.</p> <p>Lorraine Dick will develop a Frequently Asked Question which will be themed against the 71 questions raised during the recent parent meeting with the Chair and Chief Executive of HNS GG&C.</p>	<p>Senior Management</p> <p>L Dick</p>
	Communications – Duty of Candour	
	No new confirmed cases.	
	Communications – Advice to Staff	
	Staff will be updated after this IMT by management.	
	Communications – Media	
	Currently no need for a media statement but one will need to be drafted when the decision to re-open Ward 6A to new admissions has been made.	
	Communications – HPS/Scottish Government HAI Policy Unit (HIIORT)	
	Gillian Bowskill will complete the HIIORT tomorrow morning and send onto HPS.	
12.	AOCB	
	Nothing to report	
13.	Date & Time of next meeting	
	The next IMT is being held on Thursday 14 th November at 15:45	

**Incident Management Team meeting
Gram Negative Bacteraemia (GNB) – Paediatric Haem Onc
Thursday 14th November 2019, 15:45
Level 4 Seminar Room, QEUH**

Present:

Dr Emilia Crighton (Chair)	Head of Service, Public Health
Sandra Devine	Acting Infection Control Manager
Pamela Joannidis	Acting Associate Nurse Director, IPC
Tom Steele	Director Facilities/Estates
Jamie Redfern	General Manger, Women & Children's
Jen Rodgers	Chief Nurse, Paediatrics
Scott Davidson	Deputy Medical Director
John Mallon	Technical Services Manager
Lorraine Dick	Senior Press Officer
Emma Sommerville	Senior Charge Nurse
Kevin Hill	Director Women & Children's
Dr Iain Kennedy	Public Health Consultant
Prof Alistair Leanord (left 1700)	Consultant Microbiologist
Annette Rankin	Nurse Consultant HPS
Lisa Ritchie (left 1625)	Nurse Consultant, HPS
Dr Dermot Murphy	Consultant Paediatric Oncologist
Dr Annmarie Ewart	Assistant Practitioner Physiotherapy
Dr Milind Ronghe	Paediatric Consultant
Dr Alan Mathers	Chief of Medicine Women & Children
Dr Jairam Sastry	Paediatric Consultant

In Attendance:

Ann Lang (minutes)

Apologies Received:

Prof Brian Jones	Prof Brenda Gibson	Graeme Forrester
Gillian Bowskill	Sandra Higgins	Dr Chris Deighan

		Actions
1.	Introduction	
	Dr Emilia Crighton welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
3.	Minutes of Previous Meeting	Action
	Minutes of the previous meeting held on 11 th November 2019 were noted and the following amendments made:- Page 2, Item 4, 2 nd para – Should read “Dr Davidson will contact Pharmacy to see if there are any suggestions moving forward”.	

		Actions
	<p>Page 2, Item 4, Patient Report – Jen Rodgers to forward other wording for the beginning of this section.</p> <p>HPS asked for more time to review the minutes and will forward any amendments/comments to Calum.</p> <p>Dr Crighton wished to express her thanks to Calum for the timely completion of the last minutes.</p>	<p>J Rodgers</p> <p>HPS</p>
3.	Action Plan Update	
	Please see separate action plan.	
4.	Incident Update	
	<p>The final report from HPS has been received. The report states that there is no evidence from the data in the report to continue restrictions to admissions. HPS were asked if there could be formal agreement from HPS that GGC can lift restrictions to the ward 6A– this was agreed to. Annette Rankin informed that the status of HPS report is “management in confidence” not a public document and therefore not be for wider circulation.</p> <p>An SBAR on how we plan to reopen Ward 6A has been drafted and Jamie Redfern said this will be discussed with the clinical team tonight after the meeting. Dr Murphy expressed his concern as the source of infections was not found and if it would be possible to have further infections when restrictions are lifted. Dr Crighton advised that the Nurse Director during the meeting with the Chief Nursing Officer shared HPS’ view that sometimes a source cannot be identified.</p> <p>Future process for investigating gram negative infections was described. It was already agreed that there would be a Root Cause Analysis for each new case and that was exemplified by the RCA for the possible case. If there are two gram negative bacteraemia cases in 30 days or the upper warning limits in the SPC charts are met a Problem Assessment Group will be held. Escalation from a PAG to an IMT would be based on the Boards standard outbreak procedures. When an immediate source is not identified by the IMT, external advice would be sought early. The group was advised that the findings of PAG will be reported to the Clinical Review Group.</p> <p>It has been confirmed that the SPC charts included in the HPS report will be continued by GGC IPC surveillance team, with all gram negative infections being included.</p> <p>A meeting was held this morning with HPS, Sandra Devine, Pamela Joannidis and Gillian Bowskill to discuss the Root Cause Analysis and review the patient pathway of all the cases concerned. Pamela Joannidis advised that she will look at all the samples and try to match these against the patients. The updated RCA will be circulated with the minutes.</p> <p>It was agreed that the communications regarding lifting the restrictions to admissions on Ward 6A have to be available as soon as possible. Lorraine Dick informed that her team are working on this and waiting for the agreement from this IMT to go ahead and finalise it.</p>	<p>HPS</p> <p>CRG</p> <p>IPC</p> <p>P Joannidis</p>

		Action
	General Situation Statement	
	All control measures are in place.	
	Patient Report	
	The microbiology result for the possible new case was E-Coli and was agreed that this does not meet the case definition and the patient would not be included in this incident.	
	Microbiology Report	
	There are no new results with the exception of the microbiology result for the possible case.	
	Other Relevant Reports	
	<p>The group was advised that there are currently patients with new haematological/oncological diagnoses whose treatment plan may depend on the lifting restrictions for admission to the ward; their care will be considered on a case by case basis and risk assessment.</p> <p>A hand hygiene audit was carried out with a score of 100%.</p>	
5.	Hypothesis Update	
	Nil to update.	
6.	Case Definition Review	
	<p>The case definition is as before which is:</p> <ul style="list-style-type: none"> Any patient with a bloodstream infection from an organism who's source is water or soil i.e. environmental organisms. Patients who have a positive Blood Culture as described above and have contact with Ward 6A or supporting services (excluding Ward 4B) in the past month. 	
7.	Risk Management/Control Measures	
(a)/(b)	Patients/General	
	<p>HPS report received showed the data does not support the ongoing restrictions to admissions and therefore it supports IMT recommendation for lifting restrictions for admissions to the ward.</p> <p>A meeting with consultants was held and minutes are to be issued soon. Jamie Redfern said that an SBAR will be worked through in detail and the two key elements include 1) clinical team are happy on basis of discussions at IMT today and previous IMTs and 2) HPS are happy to support our decision to reopen ward.</p>	

		Action
	<p>He advised that the following has been discussed at the meeting with consultants:-</p> <ul style="list-style-type: none"> • All estates work has been finalised with input from Infection Control and Facilities. • Hand hygiene audits were carried out. • IMT identified no link between Ward 6A environment and the infections. • Water testing results support return to supplying filtered tap water instead of bottled water to patients. • Discussed the process regarding triggers and plans to have PAG. • Working with parents and families regarding hand hygiene and Infection Control practice which will bring confidence to them. • In relation to other hospitals GGC are lower in comparison regarding the gram positive bacteraemia rates. • More portering services have been introduced and have agreed, in principle, to have a housekeeper. • A band 7 post has been appointed to and the Lead Nurse will have more visibility on the ward. <p>Jamie Redfern advised of service pressures on ward 4B and supported lifting the restrictions for 6A. In the last 6-8 weeks he said that there have been no further infections.</p> <p>Kevin Hill stated that there needs to be an operational meeting to determine how the lifting of restrictions to admissions to the ward can happen and what measures are in place for patients.</p> <p>Dr Crighton said IMT first needs to recommend lifting the restrictions and subsequently ask for operational planning and Comms. Discussions identified preparations would make it possible to have things in place by Monday. A draft communication letter about the ward lifting restrictions would go to Professor White and CNO for agreement.</p> <p>The IMT agreed to recommend lifting the restrictions to admissions and ask management to prepare operational plans and link with Communication team and CNO/SG for approval.</p>	
8.	Further Investigations Required	
	Nil.	
9.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as GREEN.	
10.	Communications – Advice to Parents/Patients	
	<p>Letters to all parents will be sent out once the agreement to lift restrictions for admissions to the ward is confirmed by CNO.</p> <p>Dr Murphy said that there is a degree of anxiety among parents after an article was published in the Daily Record about an issue not related to the investigation of the IMT.</p>	

		Action
	<p>Jen Rodgers and Emma Somerville met with families and Jen stated that the families are very concerned and the information in the newspapers is having an impact on the parents.</p> <p>As there is a Facebook page for Ward 6A Lorraine Dick reported that the Press Office does monitor this and answers any questions that there may be. Kevin Hill commented that we have been factual in our account and all controls are in place.</p>	
	Communications – Duty of Candour	
	No new confirmed cases.	
	Communications – Advice to Staff	
	Advise ward staff of the recommendation of the IMT to lift restrictions.	
	Communications – Media	
	A draft media statement has been prepared and will be issued once a letter has been given to the parents/patients. Lorraine Dick confirmed that she will contact the communication team in HPS as well.	L Dick
	Communications – HPS/Scottish Government HAI Policy Unit (HIIORT)	
	<p>HPS to update Scottish Government that there are no new cases, and the recommendations of the IMT that the ward restrictions are to be lifted.</p> <p>Dr Murphy asked if the IMT were happy for him to contact colleagues in Lothian and Grampian to say restrictions have been lifted and the IMT agreed to this.</p>	D Murphy
11.	AOCB	
	Nothing to report	
12.	Date & Time of next meeting	
	It was agreed to have a de-brief meeting in January 2020 to look at any lessons learned from this incident.	

Minutes

Tuesday 19 November 2019

3.00pm

Hot Desk/ Conference Room, Ward 1D, Royal Hospital for Children (and dial-in)

PRESENT:

Dr Pepi Valyraki	PV	Infection Control Doctor
Sandra Devine	SD	Acting Infection Control Manager, Infection Prevention and Control
Pamela Joannidis	PJ	Acting Associate Nurse Director IPC
Patricia Friel	PF	Lead Nurse, Neonatology, RHC
Jamie Redfern	JRed	General Manager, Women & Children (from 3.30pm)
Eileen Milligan	EM	Senior Charge Nurse, Women & Children
Gillian Wylie	GW	ECLS Co-ordinator, RHC
Colin Purdon	CP	Sector Estates Manager, Facilities
David Macdonald	DMac	Facilities Manager
Lorraine Dick	LD	Senior Press Officer, Communications
Dr Iain Kennedy	IK	Consultant Public Health Medicine, PHPU
Gillian Bowskill	GB	Acting Lead IPC Nurse, RHC
Dr Patrick Noonan	PN	Consultant Paediatric Cardiologist, Cardiac Service
Dr Neil Spenceley	NS	Lead Paediatric Intensivist, RHC
Melanie Hutton	MH	Clinical Services Manager

Dialled-in:

Dr Alistair Leanord	AL	Consultant Microbiologist
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IN ATTENDANCE:

Pauline Hamilton, PA IPC (notes)

APOLOGIES:

Anne McGettrick Mandy Meechan Jennifer Rodgers

Item	Action
<p>1. Welcome & Apologies (Introduction)</p> <p>Dr Valyraki welcomed everyone to this first IMT meeting to discuss two <i>Pseudomonas aeruginosa</i> cases under review. Round the table introductions were made and apologies were received from the abovementioned.</p>	
<p>2. Reminder of Confidentiality</p> <p>The group were informed of the need for patient confidentiality as patient identifiable material will be discussed.</p>	
<p>3. Minutes</p> <p>This is first IMT meeting held in relation to this incident.</p>	

4. Background and General Situation Statement

Dr Valyraki explained that this IMT had been convened with various specialists in attendance to further review the [REDACTED] *P. aeruginosa* patients in Ward 1D PICU (RHC) and to establish classification of both cases, i.e. if hospital acquired infection (HAI).

- Patient Report

[REDACTED]

[REDACTED]

[REDACTED]

- General Situation

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Item	Action
<ul style="list-style-type: none"> • Microbiology Report <p>Dr Valyraki reported that the typing results for [REDACTED] do not match. It was noted that because of the way nursing and medical staff are organised it would make it highly unlikely for geographical and staff cross-contamination to occur.</p>	
<p>5. Actions</p> <ul style="list-style-type: none"> • Results are awaited for water samples taken last week (PICU). As the water is supplied from the same main further water sampling in NICU and Theatre-8 will be taken. Gillian Bowskill will contact Colin Purdon separately to arrange this. • The unit has been re-audited. Gillian Bowskill will invite Stefan Morton (Local Health Board Co-ordinator) to provide hand hygiene education and audit. Dr Spenceley will take forward basic hand hygiene education during ward rounds over the next couple of weeks. A hand hygiene toolbox talk is available on the IPC website. • Dr Spenceley reported a recent switch to Vygon. Bionector were previously brought in but at that time they were incompatible with the resuscitation medicines in glass vials which could not be connected to them. This however may no longer be the case as the interface between Bionector and the Curoc cap are made by the same company. Gillian Wylie reported that there is a cap available for the SmartSite. Pamela Joannidis reported that Ward 6A recently trialled BD Pure HUB caps which are now currently used throughout their pathway. It was agreed to trial BD Pure HUB and Dr Spenceley agreed to take this forward. 	<p>GB/CP</p> <p>GB NS</p> <p>NS</p>
<p>6. Further Investigation and Additional Control Measures</p> <p>[REDACTED] Both the ECMO machine and the water system (used separately) were ruled out as a source of contamination following checks. All of the ECMO machines were tested and all tested negative for TVC. The ECMO machines are contained units. Procedures and protocols are in place for taking off hoses and such like. A new cleaning regimen started in July 2019, and as per HPS guidelines 7% hydroperoxide is used for decontamination.</p> <p>At present the ECMO machines are cleaned once a week irrespective of whether they are used or not, and they are also cleaned after every patient use.</p> <p>[REDACTED]</p> <p>[REDACTED] This machine is currently not being used. If the results are negative for both the ECMO machine and water heater, these can be put back in use.</p> <p>[REDACTED]</p>	

Item	Action
<p>7. Healthcare Infection Incident Assessment Tool (HIIAT)</p> <p>Sandra Devine stated that a trigger for an IMT is two or more linked cases. There is no link between the cases discussed today in terms of time, place etc. It was agreed however that it would be practical to assess the HIIAT but that this assessment does not indicate an outbreak.</p> <p>[REDACTED]</p> <p>The HIIAT assessment was agreed as GREEN</p> <p>Severity of illness – MINOR Impact on Services – MINOR Risk of Transmission – MINOR Public Anxiety – MINOR</p>	
<p>8. Communications</p> <ul style="list-style-type: none"> Advice to Patients / Parents <p>Jamie Redfern confirmed there are protocols and processes in place to communicate with families, and that all relevant families would be spoken to.</p> <p>[REDACTED]</p> <ul style="list-style-type: none"> Advice to Staff <p>Nil of note.</p> <ul style="list-style-type: none"> Press / External (Media) <p>Lorraine Dick referred to a specific media enquiry which will be discussed with her manager. The group will be informed of any media communication in relation to this incident and any response made.</p>	<p>JRed/ LD</p>
<p>5. Any Other Business</p> <ul style="list-style-type: none"> None. 	

Item	Action
<p>6. Review of Actions (timescale and allocated responsibility)</p> <ul style="list-style-type: none"> • Water sampling in NICU and Theatre-8. • Gillian Bowskill to ask Stefan Morton to provide hand hygiene education audit. • Dr Spenceley to take forward basic hand hygiene education during ward rounds. • Dr Spenceley to arrange trial of BD Pure HUB. • [REDACTED] 	<p>GB/CP</p> <p>GB</p> <p>NS</p> <p>NS</p> <p>JRed/ LD</p>
<p>7. Date and Time of Next Meeting</p> <p>The IMT will reconvene once the water sampling results are received but there would be no need for a further meeting if the results are negative for <i>P. aeruginosa</i>.</p>	

- **Patient Report**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- **Microbiology Report**

Water samples (taken from any water sources) are all negative. Filters were removed from taps for samples to be taken. The only connection with the first two *Pseudomonas* cases is Theatre-8 which has been tested and is clear. There was some discussion around sinks and little-used outlets (from 2016) and uncertainty around changing style of sinks. It was agreed this can be looked at separately. Dr Turner stated that a [REDACTED] *Pseudomonas* case reported [REDACTED], but may be an import. Gillian Bowskill noted the CHI number and will investigate this with Pamela Joannidis.

GB/PJ

As part of the PAG for *Pseudomonas* (3 cases), and in addition to water sampling, frequently touched surfaces are also being sampled. Environmental sampling of 4 areas (one is a controlled area) have been taken. If the 3rd *Pseudomonas* case is the same typing as either of the first two cases (not matched) then this incident would re-open, but can stay closed if typing is not the same.

- **Other Relevant Reports**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Typing: There have been no recent *Serratia* to compare typing and no incident as such. The last reported *Serratia* case was in August 2019. Reference was made to a retrospective case. [REDACTED]

It was decided that the [REDACTED] *Serratia* case is sent for typing.

GB/PJ

Audit: Gillian Bowskill reported that audit (IPCAT) at the beginning of November 2019 was GREEN (Acinetobacter). One section around equipment will be repeated. Hand hygiene was 85%, when repeated 90%. Ongoing basic hand hygiene education during ward rounds (taken forward by Dr Spenceley and Stefan Morton, Local Health Board Co-ordinator). Jamie Redfern pointed out that haem/onc get excellent hand hygiene results however they have quite a high number of visiting doctors. Gillian will ask Stefan Morton to discuss with Dr Spenceley how to tackle this specifically.

GB

Weekly Checklists: Liane McPherson confirmed that the weekly assurance checklists for equipment are being done.

Observation of Procedures: Gillian Bowskill reported that the blind BAL process was observed and no issues were identified. It was noted that the suction tubing gets changed every 2 hours.

Cleaning Checklist (new keyboards): Liane McPherson reported that an order has been placed for a new type of keyboard (25 ordered) that can be immersed in water. A cleaning checklist will be prepared but it is expected that the keyboards will be wiped down during shift time but cleaned by immersing in water after every dedicated patient.

Bins and Aprons: Bins will be better positioned to avoid the aprons from the dispenser getting caught in the bins.

Ventilation: Liane McPherson agreed to have the mobile HEPA units in the cubicles checked. Jen Rodgers confirmed that rooms? wards? 13/16 and 19/22 had increased permeability and were validated recently. Jen Rodgers confirmed HEPA filter in Room 12 is working. Dr Davidson stated that the two *Pseudomonas* patients were in before the work was done.

Discussion followed around ventilation with consideration of the 2 of the 4 *Pseudomonas* babies. As part of commissioning particle counts were taken however nil to measure the particle counts against. Pascals have been increased.

Jen Rodgers reported that still getting 10 air changes in these rooms and added this has always been the case since build. Dr Leanord stated that in light of this information ventilation will be re-considered after typing results are received. The draft environmental accommodation document would be circulated by Pamela Joannidis. This was agreed.

4. Hypothesis Update

The active *Serratia* case is likely sporadic in a susceptible patient.

5. Risk Management / Control Measures

- Patients**

It was agreed a standard trigger of two-weeks around this being a sporadic case.

[Redacted]

[Redacted]

- General**

Patient equipment control measures will be tightened-up. There is a plan around splash risk at sinks.

Item	Action
<ul style="list-style-type: none"> Public Health <p>Liane McPherson confirmed that domestic issues have been discussed but will take forward who is responsible for clearing up and cleaning in the relatives' room. [REDACTED] [REDACTED] [REDACTED] Gillian Bowskill will discuss with Stefan Morton about providing a parent education session and will also ask if this can be monitored.</p> <p>It was agreed it was not necessary to stop families using communal areas for this particular incident at this particular stage.</p> Staff <p>It was agreed that hand hygiene education is worthwhile. Jen Rodgers added that people do not always read posters.</p> 	<p>LMcP</p> <p>GB</p>
<p>6. Further Investigations Required</p> <p>None.</p>	
<p>7. Healthcare Infection Incident Assessment Tool (HIIAT)</p> <p>The HIIAT assessment was agreed as AMBER</p> <p>Severity of illness – MODERATE Impact on Services – MINOR Risk of Transmission – MINOR Public Anxiety – MODERATE (in anticipation)</p> <p>Severity of illness (MODERATE). There is no associated mortality as a direct result. [REDACTED] [REDACTED]</p> <p>Public Anxiety (MODERATE). Agreed as moderate <u>in anticipation</u> of public anxiety. Gillian Bowskill contacted Communications during the meeting who confirmed there is currently no media interest.</p>	
<p>8. Communications</p> <ul style="list-style-type: none"> Advice to Public <p>None.</p> Duty of Candour <p>[REDACTED]</p> 	

Item	Action
<ul style="list-style-type: none"> • Advice to Professionals Dr Davidson will update the clinical team. • Media As noted earlier, there is no media interest at present. • HPS / SG HAI Policy Unit (HIIORT) Pamela Joannidis will complete the HIIORT and will include the one active <i>Serratia</i> patient reported today. 	
<p>9. AOCB</p> <ul style="list-style-type: none"> • None 	
<p>10. Action List (with timescale and allocated responsibility)</p> <ul style="list-style-type: none"> • Dr Turner stated that a [REDACTED] <i>Pseudomonas</i> case reported today [REDACTED] [REDACTED] which may be an import. Gillian Bowskill noted the CHI number and will investigate this with Pamela Joannidis. GB/PJ • <i>Serratia</i> to be sent for typing [REDACTED]. GB/PJ • Gillian Bowskill to ask Stefan Morton to discuss with Dr Spenceley how to hand hygiene education and audit in relation to the high number of visiting doctors in haem/onc. • A cleaning checklist will be prepared for the new type of keyboard that can be immersed in water. LMcP • Bins will be better positioned to avoid the aprons from the dispenser getting caught in the bins. GB • Liane McPherson agreed to have the mobile HEPA units in the cubicles checked. LMcP • Ventilation will be re-considered after typing results are received (<i>Pseudomonas</i>). pending • Liane McPherson will take forward who is responsible for clearing up and cleaning in the relatives' room. LMcP • Gillian Bowskill will discuss with Stefan Morton about providing a parent education session. GB 	
<p>11. Date and Time of Next Meeting</p> <p>Another IMT will be held in one week's time – 3pm Thursday 5 December. It was agreed that this could be a virtual meeting unless there is a new case then a meeting will be held.</p>	

Item	Action
<p>Sandra stated that the SPC chart for blood cultures will be used going forward, as well as the normal triggers as per SOP. Sandra will ask Ann Kerr, Lead Nurse Surveillance IPC, to set this up and also a SPC for first isolates of any other type of clinical samples e.g. BAL, wound etc. Professor Leanord stated this should be sample type specific for every GNB and to use the 3 organisms; <i>Pseudomonas</i>, <i>Serratia</i> and <i>Acinetobacter</i>. Dr Davidson stated that BAL may be done in theatre as well as in PICU and that patients could have been in other theatres and that the patient pathway would need to be considered.</p> <p>LI stated that in order to describe the ward epidemiology robust definitions should be used and all samples that meet the definition recorded on the SPC as consistent reporting is required to monitor trends. LI also discussed that the clinical review of all cases should be carried out and to allow for a more descriptive picture of the situation however cases that meet the definition should not be removed from the SPC. The SPC will be completed first then the RCA on any pattern identified. Any pattern seen will be discussed.</p>	SD
<p>2. Reminder of Confidentiality</p> <p>The group were reminded of the need for patient confidentiality as patient identifiable material will be discussed.</p>	
<p>3. Incident Update</p> <ul style="list-style-type: none"> • General Situation Statement <p>Professor Leanord provided a summary of the GNB in Ward 1D, PICU being investigated:</p> <p style="margin-left: 20px;">-</p>	
<ul style="list-style-type: none"> • 2 Patient Report <div style="background-color: black; width: 100%; height: 80px; margin-top: 10px;"></div>	
<ul style="list-style-type: none"> • 3 Microbiology Report <p>One typing result awaited for <i>Serratia</i> patient discussed [REDACTED].</p>	
<ul style="list-style-type: none"> • 4 Other Relevant Reports <ul style="list-style-type: none"> • IPCNs repeated the IPCAT SPE Audit with improvement noted last week at 89%. • [REDACTED] • Tests in Theatre-8 on 11/12/19 results were all negative. All water sources were tested against <i>Pseudomonas</i>, <i>Serratia</i> and <i>Acinetobacter</i>. Angela Johnson added testing also included inside filters, trough sinks and hand hygiene sinks in peripheral rooms, and that this was carried out on 10/12/19. • Professor Leanord referred to DMA codes and reported no growth from all 22 samples taken; 5 had coag-neg Staph on sinks or handles therefore not part of this incident. 	

Item	Action
<p>• Environmental screens picked up a number of organisms in drains. In one case a drain was positive for <i>Serratia</i>; trough sink located adjacent to a bed space. Sent for typing and re-swabbed this morning (17/12/19).</p> <p>LI asked that detail such as the environmental sampling just discussed is included in updates for the Scottish Government. LI stressed the importance of detail being reported as part of the IMT.</p>	
<p>4. Hypothesis Update</p> <p>Professor Leanord pointed out that previously there were 3 different hypotheses for each of the different organisms. .</p> <ul style="list-style-type: none"> - Hypothesis 1: <i>Acinetobacter</i> – patient-to-patient transmission – █ patients, all in same bed space. Index case would be from █ 2019. Unknown if positive on admission. There has also been a single sporadic case. . IPC continued with surveillance monitoring, ensured shared equipment was clean, TBP in place etc. - Hypothesis 2: <i>Pseudomonas</i> – potentially Theatre-8 - █ █. █ went to Theatre-8 and on this basis, water testing and environmental sampling was carried out in both Theatre-8 and Ward 1D. All █ clinical samples typed differently and all were unique therefore no links to water and the environment. The █ case referred to in minute 10/12/19 was a historical case. Last case was reported on 19/11/19. Actions have been listed in relation to this. Original hypothesis was water but was negative and typing unique. Hypothesis disproven. - █ █ █ █ █ Hypothesis again water but was closed down following negative results. <p>LI thought the IMT should also include the hypothesis for <i>Serratia</i> being █ unrelated cases as the clinical team had reported that the █ case had previously been colonised and that the positive drain sample was found in the patients room after the patient had been nursed there. The IMT agreed that this was a possible hypothesis and that the patients colonisation status would be reviewed.</p> <p>LI requested that all possible hypothesis were included in the board update.</p>	
<p>5. Risk Management / Control Measures</p> <ul style="list-style-type: none"> • Patients <ul style="list-style-type: none"> • General <p>PJ added that screening of the environment and water will continue for a period of one month SPC for BC and all other clinical isolated will be developed for each type of environmental bacteria's, It was noted at this point that good improvement has been demonstrated on the ward in relation to HH and SPE audits.</p>	

General

Jamie reported at this point in the meeting that a Clinical Review Group for ward 6a met yesterday (16/12/19) and explained that this group was convened when the IMT for 6a stood down. JR suggested that this process be replicated for PICU ie for a meeting to take place weekly with membership to include Directorate Management, IPC, Estates, Facilities, Clinical Staff and Angela O'Neill in her new role as Deputy Director of Nursing, to review any ongoing issues in PICU. The aim to ensure that all set tasks are finalised with time to discuss issues fully and instil confidence that everything possible is being done at all levels.

Dr Spenceley stated that one outcome of RCA is the pressure it puts on the system and added that if the current system is to change it would be helpful if consideration could be given to staffing levels. The ward runs well and is a good ward but increase in staffing could help alleviate pressures. Dr Spenceley is keen to work alongside Jamie to establish what is required and they will meet separately to discuss further.

Jamie reported scoring of almost 100% for the Hand Hygiene Audit using the 5-moments process used by Stefan Morton, Local Health Board Co-ordinator. Dr Spenceley stated that as a team they will try to achieve better hand hygiene results. Pamela added that challenges at times may affect audit results and that it may be prudent to capture why staff sometimes fail and for this to be recorded, e.g. when dealing with an emergency.

Pamela asked about GNB and isolation of patients. Professor Leanord stated there is no evidence from any typing of patient-to-patient transmission. Sequencing will be done going forward.

Public Health

Nil noted.

Staff

Nil noted.

6. Further Investigations Required

LI supported Jamie's suggestion earlier about meeting out with the IMT as a good all-systems approach to reinforce communication and to help with transparency also.

Jen referred to the *Serratia* timeline distributed with the minutes, and asked if there were any negative swabs for the HAI case. Pamela confirmed there were negative swabs and added that on 06/12/19 there was a specimen using the 48-hour rule, and it was a colonised infection. LI pointed out that clarity around this is needed and added that the definitions need to be robust as well as methodology for identifying cases. Sandra clarified that the 48-hour rule is used.

As the timeline was not discussed as part of this group the definition would be need to be considered and Professor Leanord asked that IPC take this forward as an action.

Pamela reported that the ventilation document distributed with the agenda was for information only and added that all have been signed-off and approved.

Item	Action
<p>7. Healthcare Infection Incident Assessment Tool (HIIAT)</p> <p>The HIIAT assessment was agreed as GREEN</p> <p>Severity of illness – MINOR Impact on Services – MINOR Risk of Transmission – MINOR Public Anxiety – MODERATE (in anticipation)</p> <p>Public Anxiety agreed as moderate <u>in anticipation</u> of public anxiety (around <i>Serratia</i> case). Press holding statement prepared.</p>	
<p>8. Communications</p> <ul style="list-style-type: none"> • Advice to Public <p>None.</p> <ul style="list-style-type: none"> • Duty of Candour <p>Professor Leanord referred to a Duty of Candour e-mail. LI asked for the detail around what had been told to patients/parents or carers by whom to be included in the HPS update.</p> <p>Post meeting summary (from Jamie Redfern) as noted:</p> <p>Jamie Redfern and Professor Leanord referred to an outline summary for each patient under review of the IMT and what had happened to them under Duty of Candour. This had been submitted ahead of the IMT by Dr Alastair Turner. This was an action from a previous meeting. Both were complementary of the format used and information contained within it and thanked Dr Turner for providing this.</p> <ul style="list-style-type: none"> • Advice to Professionals <p>Nil of note.</p> <ul style="list-style-type: none"> • Media <p>Press holding statement prepared.</p> <ul style="list-style-type: none"> • HPS / SG HAI Policy Unit (HIIORT) <p>Pamela Joannidis will complete the HIIORT.</p>	
<p>9. AOCB</p> <ul style="list-style-type: none"> • None. 	

Item	Action
10. Action List (with timescale and allocated responsibility)	
IMT Actions (noted at 10/12/19 IMT):	
<ul style="list-style-type: none"> Weekly Safe Patient Environment Audits. 	IPC
<ul style="list-style-type: none"> Routine weekly swabbing of POUFs, drains and CHWBs over a 4-week period, commenced this week (noted at 10/11/19). 	IPC
<ul style="list-style-type: none"> Routine weekly water sampling will be carried out over a 4-week period checking for all gram negatives. Monthly water sampling will check for any mycobacterium 	DMA
<ul style="list-style-type: none"> All drains will continue to have weekly Hysan dosing. 	Facilities
<ul style="list-style-type: none"> Pamela Joannidis will share the isolation room document with the IMT. 	PJ
<ul style="list-style-type: none"> The IPC Data Team have produced an SPC chart for all gram negatives in PICU, details of occupied bed days to be supplied. 	JR
<ul style="list-style-type: none"> Once the incident was closed normal Trigger will be 2 gram negative isolates in a 30-day period for 2 HAI in a 2-week period. 	IPC
<ul style="list-style-type: none"> RCA will be completed for any new blood cultures. 	IPC
<ul style="list-style-type: none"> As requested by Scottish Government there will be a retrospective look back for a period of 6 months and RCA completed for the 2 cases in the time period. 	PJ
IMT Actions (from today):	
<ul style="list-style-type: none"> Sandra to ask Ann Kerr, Lead Nurse Surveillance IPC to set up an SPC chart for blood cultures and other significant clinical isolates for each organism going forward. 	SD
11. Date and Time of Next Meeting	
<p>It was agreed that an IMT meeting will be held mid-January 2020 after 4 weeks of sampling however an IMT will be held if there is a trigger or another new case.</p>	
<p>Laura and Pamela will discuss separately at close of meeting the list of questions from 16/12/19 and the response to these questions.</p>	

**DRAFT Incident Management Team meeting
Gram Negative Bacteraemia Ward 1D
Monday 30th December, 12:00
Conference Room Ward 1D**

Present:

Prof Alistair Leanord	Clinical Lead Microbiology/Infection Control Doctor
Pamela Joannidis	Acting Associate Nurse Director IPC
Sandra Devine	Acting IPC Manager
Laura Imrie	Lead Nurse Consultant, Health Protection Scotland
Liane McPherson	Senior Charge Nurse, Ward 1D
Dr Neil Spenceley	Paediatric Intensivist, RHC
Jenn Rodgers	Chief Nurse Paediatrics & Neonates
Angela Johnson	Senior IPC Nurse

In Attendance:


Calum MacLeod (minutes)



Apologies Received:

Lorraine Dick	Senior Press Officer
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1.	Introduction	ACTION
	Prof Alistair Leanord welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
3.	Minutes of Previous Meeting & Action Plan Update	
	Minutes of the previous meeting held on 17 th December 2019 will be sent to the IMT members for comment.	
4.	Situation Statement	
	<p>There has been 4 cases of Gram Negative Bacteraemia (GNB) since 5th October 2019 until 23rd December 2019.</p> <p>Laura Imrie informed that the IMT had reported 4 GNB cases at the last meeting and with the new case should bring the total to 5. Prof Leanord informed her that one of the cases from the last IMT was from August 2019 which they had been requested to look into retrospectively by the Scottish Government.</p>	

4.	Patient Report	ACTION
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED] tested positive for Acinetobacter baumannii.</p> <p>Environmental samples (including drains) taken on 11th & 19th December of the 4 bedded bay 19-22 did not come back with any positive Acinetobacter baumannii which was the hypothesis at the time.</p> <p>[REDACTED]</p>	
	Microbiology Report	
	<p>Reference lab is currently closed during the festive season until 6th January 2020. Usually takes about 10 working days for a result to be returned. Prof Leanord will follow up this typing request.</p> <p>Angela Johnson has contacted the Infection Prevention & Control Team [REDACTED] to see if patient had any historic organisms prior to being transferred to RHC. The IPC team could not find anything but are only able to look back 1 year of results.</p>	A. Leanord
	Other Relevant Reports	
	<p>Water leaked from a toilet in Ward 2C (above) into bed space 16 and the entrance to room 17. The leak was found at the back of the sinks and has since been rectified.</p> <p>Ventilation has also been looked into with air changes within the ward currently at 10 per hour. Work was carried out in October/November to upgrade the ventilation within Ward 1D which involved an options appraisal from Microbiology, Estates and an external engineer. All 4 bedded bays have been complete with only a few remaining cubicles remain to be completed.</p>	

5.	Hypothesis Update	ACTION
	<p>None of the bed bays this new case frequented is associated with the previous GNB cases.</p> <p>There is no overlap in time and no commonality in with patients sharing instruments/kit.</p> <p>No Acinetobacter has been isolated in the environment and water in Theatre 8 which is commonly used for PICU patients. Room 13 and 16 have also been environmentally tested with no Acinetobacter found.</p> <p>Prof Leanord thinks this could be a sporadic case or possibly transmitted by hand but will not know until typing result is returned.</p>	
6.	Risk Management & Control Measures	
	<p></p> <p>Enhanced supervision is being carried out within the ward every week. Stefan Morton, Hand Hygiene Co-ordinator carried out an audit this morning (30/12/19). Liane McPherson informed the team that it scored 90% as two medical were non compliant.</p> <p>Sandra advised that Statistical Process Charts (SPC) regarding Blood Cultures and BAL specimens from Ward 1D are in their final stages of being drawn up. These SPC's will be submitted to the clinical review group which is to be created once this IMT closes.</p>	<p>IPCT/SCN</p> <p>S Devine</p>
7.	Further Investigations	
	<p>Request facilities to carry out a full survey of Ward 1D so that there is no leaks/areas of dampness within the ward. The IPC team will contact estates and ask them what this would entail.</p> <p>Water sampling of all water outlets in 4 bedded areas 19 - 22 & 8-11 any. Room 17 is to be sampled as well.</p>	<p>Estates</p>
8.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as GREEN.</p> <p>Severity of illness – MINOR Services – MINOR Risk of Transmission – MINOR Public Anxiety – MODERATE</p>	

9.	Communications – Advice to Patients/Duty of Candour	ACTION
		
	Communications – Advice to Staff	
	Staff will be updated by management in their daily update.	
	Communications – Media	
	Sandra Devine will contact press office after meeting to inform them of the current situation and what has been agreed.	
	Communications – HPS/Scottish Government HAI Policy Unit (HIIORT)	
	Pamela will update the existing HIIORT and send onto HPS to review.	
10.	AOCB	
	 <p>Sandra Devine asked Laura Imrie when it will be possible to step down this IMT as it is currently being run to include all GNB organisms. Sandra Devine requested if the IMTs could be run separately as this one has been running for nearly 3 months. Laura Imrie informed her that the Scottish Government wants all the GNB organisms put together even though this is out with GG&C normal process as they are concerned about the recent incidents involving GNB.</p>	
11.	Date & Time of next meeting	
	No further IMT was arranged, however an IMT will be held if there is a trigger or another new case identified that meets the case definition.	

Date agreed Action	Action	Responsible Person	Status/Update
30/12/2019	Follow up typing [REDACTED]	Prof A Leanord	Complete
30/12/2019	[REDACTED]	SCN/IPCT	Complete
30/12/2019	SPC Charts for Blood Cultures/BALs from Ward 1D are to be introduced	Sandra Devine	Complete
30/12/2019	Water sampling of all water outlets within 4 bedded bays (19-22 & 8-11) and also Room 17 is to be carried out.	Estates	Complete

**DRAFT Incident Management Team Teleconference
Gram Negative Bacteraemia
Ward 6A, QEUH
Thursday 16th April
14:30**




Present:

Prof Alistair Leanord	Clinical Lead Microbiology/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse Paediatrics South Sector
Gael Rolls	Senior Charge Nurse/Critical Care Co-ordinator
Jamie Redfern	General Manager RHC
Emma Somerville	Senior Charge Nurse, Ward 6A
Angela Wallace	Operational Director of Infection Prevention & Control
Prof Brenda Gibson	Consultant Haematologist
Angela Howat	Senior Charge Nurse, Ward 6A Day Care
Jenn Rodgers	Chief Nurse Paediatrics & Neonates

In Attendance:

Calum MacLeod (Minutes)

1.	Introduction	ACTION
	Professor Leanord welcomed everyone to the meeting and introductions were made.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
3.	Patient Report	
	Last case of a gram negative bacteraemia was reported on the 7 th April 2020 with no further cases to date. Both patients have been discharged home since the last IMT. Currently no active patients with a gram negative bacteraemia is in Ward 6A.	
	Microbiology Report	
	Professor Leanord will look into the antibiogram of the last two cases today to see if there is any linkage with other historic gram negative cases.	A Leanord
	Other Relevant Reports	
	A line audit of Ward 6A will be carried out by Kate Nicol on Tuesday 21 st April. Professor Leanord requested that the findings of this audit should be shared with this IMT for information.	
4.	Risk Management & Control Measures	ACTION
	Professor Brenda Gibson highlighted that since the stoppage of using	

	Ciprofloxacin with the introduction of Taurolock there has been an increase in lines being clotted. This is more a QI issue in which the Chief Nurse will link in with the Senior Charge Nurses and Clinicians regarding possible improvements.	
5.	Further Investigations	
	Nil to report. Incident Assessment Tool (HIIAT)	
6.	Healthcare Infection	
	The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as GREEN. Severity of illness – MINOR Services – MINOR Risk of Transmission – MINOR Public Anxiety – MINOR	
7.	Communications – Advice to Patients/Duty of Candour	
		
	Communications – Media	
	The holding statement for the press was never used.	
8.	Date & Time of next meeting	
	Prof Leanord agreed to formally close this IMT unless further triggers are hit regarding GNB.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
09/04/2020	An Antibigram of these two bacteraemias is to be carried out.	A Leanord	16/04/20 – Prof Leanord will carry this out today
09/04/2020	An audit of line care within Ward 6A is to be carried out.	Jenn Rodgers	16/04/20 – Line audit will be carried out on 21/04/20 and results will be shared with the IMT.
09/04/2020	Generic press statement is to be drawn up in case of any media interest.	Lorraine Dick	Complete
09/04/2020	HIORT is to be completed and sent onto Health Protection Scotland.	Gillian Bowskill	Complete

**Incident Management Team
Ward 6A**

**Notes of Meeting
via
Microsoft Teams**

2nd July 2020 at 10.30am

Present:

Professor Alastair Leanord (Chair)	Acting Lead Infection Control Doctor
Sandra Devine	Acting Infection Control Manager
Jen Rodgers	Chief Nurse, Paediatrics and Neonates
Dr Dermot Murphy	Consultant Oncologist
Dr Scott Davidson	Deputy Medical Director, Acute
Gillian Bowskill	Acting Lead Nurse, South Paediatrics
Pamela Joannidis	Acting Associate Nurse Director IPC
Gael Rolls	Senior Charge Nurse
Dr Brenda Gibson	Consultant Haematologist
Claire Cook	Senior Communications Officer
Kevin Hill	Director
Sandra Bustillo	Director of Communications and Public Engagement
Dr John Hood	Consultant Microbiologist
Dr Alan Mathers	Chief of Medicine, W&C
Annette Rankin	Nurse Consultant, HPS
Angela Howat	Senior Charge Nurse
Jenny Copeland	Principal Lead Organisation Development
Angela Howat	Senior Charge Nurse

Item		Action
1.	Introduction	
	Professor Alistair Leanord welcomed everyone to today's meeting.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality.	
3.	Incident Update	
	<ul style="list-style-type: none"> General situation statement 	
	<p>There has been a positive <i>Cryptococcus</i> antigen test result for 1 patient.</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	

Item		Action
	<ul style="list-style-type: none"> <li>Patient report 	
	<div style="background-color: black; width: 100%; height: 50px; margin-bottom: 10px;"></div> <div style="background-color: black; width: 100%; height: 140px; margin-bottom: 10px;"></div> <div style="background-color: black; width: 100%; height: 66px;"></div>	
	<ul style="list-style-type: none"> <li>Microbiology report 	
	<p>Professor Leanord said there were 3 serum samples from lateral flow test using neat serum. All three were negative by latex agglutination. This was taken as part of a semi routine screening following admission with pyrexia.</p> <p>The samples have been sent to Prof. Elizabeth Johnson, Director, Mycology Reference Laboratory, Public Health England at Bristol and she will run all 3 samples today for further testing to detect if there is any increase in positivity over time.</p> <p>The Aspergillus plasma result was sent to the Virus Lab and was positive for pan-Aspergillus and negative by PCR for A. fumigatus.</p> <p>Professor Leanord said that this IMT is ahead of the diagnostic results at this stage and he needs clarity from the Reference Lab in terms of positivity and the PCR result. He is hoping to have the results either today or by Friday.</p>	
	<ul style="list-style-type: none"> <li>Other relevant reports 	
	<p><i>Please note that Dr Hood, in DRAFT, in the following paragraphs below, has changed or added, where he thought it appropriate to make it more clear /understandable and offer appropriate explanations where required.</i></p>	
	<p>Routine air sampling had been carried out in the QEUH and RHC in 2019 under the instruction of Dr Hood but routine sampling had been suspended in early 2020, due to COVID-19.</p>	

Item		Action
	<p>Professor Leanord informed that he has looked at Cryptococcus antigen tests and the rates over the last two years. 376 tests of Cryptococcus were carried out and the majority were negative. This was reassuring in itself.</p> <p>Dr Hood provided an update on the air sampling that has taken place and said that over 3,500 air samples have been taken from outside air, air from the plant rooms and inside air of the hospital particularly in Wards 4B, 4C and 6A. He reported that <i>Cryptococcus neoformans</i> has never been grown in either outside or inside air, from this site.</p> <p>Dr Hood had compared total fungal air counts taken last year from patient rooms in Wards 4B, 6A and 4C and also compared them with previous air counts taken from rooms in the top floor of the Beatson, in the last 2 years of its operation as a BMTU. This was an adult BMTU with both HEPA filtered air and 'protective isolation'. This work compared the total number of sample counts of 0.0 for fungi taken in each of the above Wards.</p> <p>As expected the Beatson had zero counts in 79% of samples, which is pretty good. In Ward 4B the counts were not as good with zero counts of 62% of samples. Ward 4C drops to 40% of samples and Ward 6A dropping to 20% of samples with zero counts.</p> <p>Explanations for the above findings include (but not exclusively) : At the bottom of the corridor at Ward 4B (opposite one of the entrances to 4C) Dr Hood reported that, in certain conditions, when the door to 4C opens then the air, which is less well filtered than that of 4B, can then go into the bottom of Ward 4B. Air sampling results support this. Mitigation of sealing this door, as much as was permitted by the Fire regulations, was undertaken but it is an example of the huge complexity of airflow around the QEUH and its 'lack of control' around critical areas.</p> <p>Similarly, the configuration of the doors at the intersection outside the main entrance into Ward 6A (door to 6B and door to lift area) is not great as depending on the configuration of these doors (open or closed) air can be pulled into 6A from both 6B and the lift area (note the piston-like effect of lift in moving air from the atrium and other levels of the hospital). Again the air sampling results for 6A can, at least in part, be explained by the above.</p> <p>Dr Hood agreed to liaise with Estates to look at the plant rooms but informed the group that he had previously looked at plant rooms (many times) and indeed probably every Plant room on this site, last year.</p> <p>He also reported that he had inspected previously the air handling units (AHUs) as part of his review to ascertain if the Plant room air could have been the source of spores of <i>Cryptococcus neoformans</i> (assuming that they were possibly present in the first place) during a final filter change on that AHU. The theory being that this allowed Plant room air to gain access to the duct without the final filter being in place and so potentially getting to the patient. Firstly there were No patient cases present in a ward at a time that their relevant AHU had been shut down for a Filter change.</p>	<p style="text-align: right;">JH</p>

Item		Action
	<p>More importantly, when the AHU was shut down and the final filter was removed, rather than the Plant room air being pulled into the duct downwards (minus said filter) towards the patients - the air actually came up from the duct below, at some pressure, not down. This is known as the 'chimney effect.' Therefore the chance of Plant room air getting into the ventilation system and thence to the patient cases by this postulated route, is highly highly unlikely.</p> <p>Dr Hood also commented that the risers (electrical or mechanical services) should be sealed off at the top and bottom (both in plant rooms) so that unfiltered air cannot get into the wards e.g. via the IPS panels.</p> <p>He highlighted that one point to note is that Wards 4C and 6A have F9 filters (previously F7s) which are not HEPA filters. HEPAs will remove 99% of small particles as opposed to, probably, about 80% with the F9.</p> <p>Dr Hood commented that it's extremely difficult to grow <i>Cryptococcus neoformans</i> from air.</p> <p>He also informed the group that the incubation period for <i>Cryptococcus neoformans</i> is unknown and that latency/dormancy certainly occurs, as is documented in the literature.</p> <p>Professor Leanord commented that if a patient has not got prior <i>Cryptococcus</i> infection that there is a 30% false positivity rate using lateral flow antigen testing.</p> <p>From a clinicians perspective Dr Mathers advised that we should wait until we have all the results before making any major decisions. He said that we need to have a sequence of diagnostic tests that the clinician initiates. In PICU they have a specific regime and he thought an algorithm would be helpful to make it clear for clinicians to have a standard set of diagnostic tests. Dr Murphy stated that he feels they have more close contact with Microbiology colleagues than any other unit and the test is normally discussed with two people i.e. Consultant and Microbiology.</p>	
	<ul style="list-style-type: none"> • Duty of Candour 	
	This will be discussed with the patient's family.	
	<ul style="list-style-type: none"> • Hypothesis 	
	<ul style="list-style-type: none"> - Environmental – community or hospital - Testing – false positive - Activation of previous latent infection 	
4.	Risk Management/Control Measures	
	<ul style="list-style-type: none"> • Patients 	
	An inspection of the plant rooms will be carried out by Dr Hood and if there is a concern more air sampling can be carried out. [REDACTED]	JH

Item		Action
	<ul style="list-style-type: none"> General 	
	It was agreed that the current prophylaxis regime has not changed and should not be changed at this stage.	
	<ul style="list-style-type: none"> Public Health 	
	Public Health were invited to the meeting but no representative was available.	
	<ul style="list-style-type: none"> Staff 	
	Staff will be updated on the IMT.	
5.	Further Investigation	
	Dr Hood to look at the plant rooms.	JH
6.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as GREEN.</p> <p>Severity of illness – MODERATE Services – MINOR Risk of Transmission – MINOR Public Anxiety – MINOR</p> <p>Annette Rankin informed that a HIORT will need to be completed and sent to HPS. Gillian Bowskill agreed to do this.</p>	GB
7.	Communications	
	<ul style="list-style-type: none"> Advice to public 	
	It was agreed that as the HIIAT is classified as green and that this will be reviewed if results indicate that another IMT is required.	
	<ul style="list-style-type: none"> Advice to professionals 	
	Jen Rogers asked if discussions can take place with staff in the unit. Dr Murphy said he was happy to discuss this with medical colleagues and said he will discuss some wording with Jen Rogers. Kevin Hill stated that they will need to agree what is stated is to try and reassure staff. Dr Gibson stated that there needs to be assurance to staff that there is no change to prophylaxis.	DM/JR
	<ul style="list-style-type: none"> Media 	
	It was agreed that no media statement is required at the present time.	

Item		Action
	<ul style="list-style-type: none"> • HPS / SG HAI Policy Unit (HIORT) 	
	Gillian Bowskill will complete the HIORT and forward this to HPS.	GB
8.	AOCB	
	Nil to update.	
9.	Date & time of next meeting	
	It was agreed to wait until the further testing had been carried out before rearranging another IMT.	

**Incident Management Team Meeting Videoconference
Incidence of Unusual Pathogens in Orthopaedics, QEUH
Tuesday 19th January 2021 at 11:00**

Present:

Prof Alistair Leanord (chair)	Acting Lead Infection Control Doctor
Lynn Pritchard	Lead IPC Nurse, South Glasgow
Jackie Barmanroy	Senior IPC Nurse
Sandra Devine	Acting Infection Control Manager
Pamela Joannidis	Acting Associate Nurse Director IPC
Ann Kerr	Lead IPC Surveillance Nurse
Pauline Wright	Consultant Microbiologist
Sharon Johnstone	Deputy Site Facilities Manager
Patricia Coyne	Professional Lead Domestic
David MacDonald	Facilities Manager
Morag Busby	Lead Nurse Orthopaedics
Lorna Loudon	Associate Chief Nurse
Kerr Clarkson	Estates Manager
Euan Smith	Assistant Head of Estates
Susan Groom	General Manager Surgery & Anaesthetics
Leonard Farrugia	Microbiology Registrar
Julie Garnett	Senior Charge Nurse, Clinical Risk Theatres
Shona McWilliam	Quality manager, Central Decontamination Unit
Ann Traquair Smith	General Manager Theatres & Critical Care, South Glasgow
Michael Murphy	Consultant Medical Microbiology
Lorna Reid	Clinical service Manager, Theatres & Anaesthetics
Michael Kelly	Orthopaedic Clinical Director
Alyson Goodwin	Lead Nurse, Theatres & Endoscopy
Dr Kalliopi Valyraki	Infection Control Doctor

In Attendance:

Calum MacLeod (minutes)

Apologies:

Dr Bardeep Rana

1.	Introduction	ACTION
	Prof Leanord welcomed everyone to the meeting, introductions were made and the group were reminded of the need for patient confidentiality. Apologies were received from the above mentioned.	
2.	Minute & Action Plan from Previous IMT	ACTION
	The minutes and action plan from previous IMT were disseminated to the group with no amendments requested. Please see action plan at the foot of these minutes for updates.	
2.	Situation Update	ACTION
	Dr Pauline Wright informed the group of a further case reported since the last	

	<p>IMT, bringing the total number of patents to seven.</p> <p>All patients had deep tissue samples taken while undergoing an orthopaedic procedure. These tissue samples have grown unusual pathogens like <i>Acinetobacter haemolyticus</i>, <i>Pseudomonas fluorescens</i> and/or <i>Acinetobacter gyllenbergii</i>.</p>	
4.	Hypothesis	
	<p>Prof Leanord said this is a pseudo outbreak with the source of the contamination being the Ballotini beads.</p>	
5.	Risk Management & Control Measures	
	<p>Some Ortho theatres within QEUH were closed as a precaution due to this outbreak but have re-opened when the source of the contaminant was found.</p> <p>Dr Wright confirmed that Ballotini bead containers had been tested with 27 out of the 47 coming back positive for the same organisms isolated from the patient samples.</p> <p>The company who supply the Ballotini Beads sent out an email communication on the 6th January 2021 regarding concerns they had with a specific batch numbers of Ballotini Beads. QEUH labs returned these but kept some to carry out further testing.</p> <p>Dr Wright has informed all other labs across GG&C including the Jubilee Hospital to remove any Ballotini Beads from the contaminated batch numbers.</p> <p>All patient samples have been sent for typing and currently awaiting results. It was agreed that there would be no value in sending the Ballotini beads away for typing.</p> <p>From now on theatres are sending samples in sterile containers with lab staff adding the Ballotini beads themselves.</p>	
6.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as <u>GREEN</u>.</p>	
7.	Communications	
	<p>IPC will update the online HIIORT for Health Protection Scotland.</p> <p>Sandra Devine will contact Health Protection Scotland regarding the contaminated Ballotini Beads to see if a safety alert or something similar could be sent around all hospitals within Scotland.</p> <p>No further meetings are required.</p>	<p>IPCT</p> <p>S Devine</p>

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
19/01/2021	Sandra Devine will contact Health Protection Scotland regarding the contaminated Ballotini Beads to see if a safety alert or something similar could be sent around all hospitals within Scotland.	S Devine	Complete
19/01/2021	IPC will update online HIIORT reporting tool for Health Protection Scotland.	IPC Team	Complete
11/01/2021	Analysis of the numbers of deep tissue samples from QEUH procedures against GRI procedures is to be undertaken	Michael Murphy	Complete - It was decided this was not relevant anymore.
11/01/2021	Theatre team will see if they can minimise the time the instrumentation is on the trolley covered waiting to start the operation	Theatre Team	Complete
11/01/2021	IPC team will undertake environmental sampling of routine sites within theatres including any cracks on wall/floors. They will also test sterile gowns to rule out any contamination and will liaise with Microbiology regarding the testing of these samples.	IPC Team	Complete - A total of 35 environmental samples from 5 theatres were taken which all came back negative.
11/01/2021	Ann Traquair Smith will look into procuring the same consumables from procurement and normalise it as much as possible.	Ann Traquair Smith	Complete

11/01/2021	Air sampling within the Theatres identified by the IPC team will be undertaken by Microbiology. It was requested that the Laminar flow should be tested aswell.	Microbiology	Complete - Air sampling was undertaken on Thursday/Friday last week. It takes a week to get final results. Interim results show no surprises. If anything shows up IPC will take this up with estates.
11/01/2021	As the organisms in question are water borne it was requested that water testing will be carried out. IPC team will email Kerr Clarkson with a list of theatres that require testing	Kerr Clarkson	Complete in 5 theatres. Kerr Clarkson informed the group that there seems to be a lack of flushing of taps within the theatres. Kerr will send onto Ann Traquair Smith the list of taps in question and she will re-iterate with staff the flushing regime.
11/01/2021	Lorna Reid is to send the tray theatre instrument identifier numbers for the 6 patients to Ian McIvor and Michael Murphy to investigate.	Lorna Reid	Complete
11/01/2021	Dr Wesley Stuart and Frances McLinden are to discuss options with senior management and come back with possible proposals.	Wesley Stuart & Frances McLinden	Complete
11/01/2021	IPC will update online HIIORT reporting tool for Health Protection Scotland.	IPC Team	Complete
11/01/2021	IPC will email the press office the outcome of the meeting and ask to prepare a holding statement.	Press Office	Holding statement was developed but not used

**Incident Management Team Meeting Videoconference
Burkholderia Stabilis Case, QEUH
Thursday 28th January 2021 at 10:00**

Present:

Prof Alistair Leanord (chair)	Acting Lead Infection Control Doctor
Nicola Mallon	Infection Prevention & Control Nurse
Katrina Black	Senior Infection Prevention & Control Nurse
Patricia Coyne	Professional Lead Domestic
Julie Ann Rodger	Senior Charge Nurse, Ward 11B
Dr Keith Hussey	Consultant Vascular Surgeon
Karen Bell	Clinical Service Manager, General Surgery, Breast & Vascular
Kevin McAuley	Lead Nurse, General & Vascular Surgery
Karen McGugan	Lead Nurse, Imaging
Julie Garnett	Senior Charge Nurse Clinical Risk Theatres
Gary Grayson	Site Superintendent Radiographer, QEUH
Susan Groom	General Manager, Surgery & Anaesthetics
Pamela Joannidis	Acting Associate Nurse Director IPC
Lorna Loudon	Associate Chief Nurse, South Sector
Adele Taylor	Senior Charge Nurse, Ward 11A
Prof Angela Wallace	Interim Operational Director of Infection Prevention and Control

In Attendance:

Calum MacLeod (minutes)

1.	Introduction	ACTION
	Prof Leanord welcomed everyone to the meeting, introductions were made and the group were reminded of the need for patient confidentiality.	
2.	Situation Statement	
	<p>Infection Prevention & Control (IPC) team were alerted to a <i>Burkholderia stabilis</i> case from a blood culture on the 15th January 2021.</p> <p>A previous incident regarding 3 cases of <i>Burkholderia stabilis</i> from blood cultures was reported from June – September 2020. This incident was closed in October 2020 after no new cases were reported and all investigations were negative.</p> <div style="background-color: black; width: 100%; height: 40px; margin-top: 10px;"></div>	

3.	Patient Report	ACTION
	<p>Katrina Black gave a background summary of the 3 cases reported in 2020 where <i>Burkholderia stabilis</i> were isolated from patient's blood cultures.</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
4.	Microbiology Report	
	<p>Specimen has been sent for typing to see if it matches up with the 3 cases in 2020 that were all the same.</p>	
5.	Hypothesis	
	<p>Pseudo outbreak with possible contamination of blood letting sets and blood culture systems, skin disinfectant, environmental sources including water.</p>	
6.	Risk Management & Control Measures	
	<p>Prof Leanord asked if there was any common links between the 11th floor wards.</p> <p>Previous investigations into the 3 cases in 2020 found no crossover identified on any of the wards or any common links with sharing equipment.</p> <p>Usually contamination of items like gloves/giving sets have been identified in documented <i>Burkholderia</i> outbreaks. Numerous items like these were sampled/swabbed in 2020 but all came back negative.</p> <p>Prof Leanord informed the group that recent literature reported the possibility of contaminated ultrasound gel as all patients would have been taken through Interventional Radiology before their operations. Gary Grayson and Karen McGugan both informed the group that all kits used on patients are sterile disposable single use equipment. You would also expect to see cases throughout the hospital as this service is used by all services not just confined to Level 10/11.</p> <p>Ultrasound gel samples are to be obtained from Interventional radiology and also any theatres who may use their own to be tested.</p>	<p>IPCT</p>

6.	Risk Management & Control Measures	ACTION
	<p>Prof Leanord said there could be a possible contamination through the storage of the items used to aspirate blood cultures on Level 10/11. There has been no reported water damage/leaks in any of the clean utility storage rooms or any reports of mould that could account for possible contamination. Patricia Coyne confirmed that the clean utility rooms are cleaned on a daily basis although the cleaning of the shelves/inside the cupboards sits with the nursing team of that ward.</p> <p>It was agreed environmental swabs will be taken in all the clean utility store rooms on Level 11 by the IPC team. Water sampling of the sinks including drain swabs within the clean utility rooms will be undertaken by estates. Air sampling will also be undertaken by Microbiology</p> <p>It was also agreed that the all the utility rooms will potentially require a deep clean including moving the shelving and cleaning of the shelves in the utility rooms. Nursing staff and domestics will be able to work together to undertake this.</p> <p>A clinical review of all the 4 cases will be undertaken by the IPC team.</p>	<p>IPCT Micro Estates</p> <p>Domestic SCN</p> <p>Clinical Team</p>
6.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as <u>GREEN</u>.</p> <p>Severity of illness – MINOR Impact on Services – MINOR Risk of Transmission – MINOR Public Anxiety – MINOR</p> <p>IPC will update the online HIIORT for Health Protection Scotland.</p>	<p>IPCT</p>
7.	Communications	
	<p>IPC will email the press office the outcome of the meeting and ask to prepare a holding statement.</p> <p>Duty of candour has been undertaken for the first 3 cases identified. The other case identified are to be informed by the clinical team.</p>	<p>IPCT</p> <p>Clinician</p>
No further meetings have been arranged		

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
28/01/2021	Ultrasound gel samples are to be obtained from Radiology and also any theatres who may use their own to be tested.	IPC Team	Awaiting results
28/01/2021	Environmental sampling is to undertaken within level 11 clean utility rooms	IPC Team	Awaiting results
28/01/2021	Air sampling is to be undertaken within Clean Utility rooms on Level 11	Microbiology	
28/01/2021	Water testing & drain testing is to be undertaken within clean utility rooms on Level 11.	Kerr Clarkson	
28/01/2021	Clean utility rooms potentially require a deep clean including moving the shelving and cleaning of the shelves. Nursing staff and domestics will be able to work together to undertake this.	SCN & Domestics	
28/01/2021	Clinical review of the 4 patients is to be undertaken	Clinical Team/	Completed
28/01/2021	IPC will update the online HIIORT for Health Protection Scotland.	IPC Team	Completed
28/01/2021	IPC will email the press office the outcome of the meeting and ask to prepare a holding statement.	IPC Team	Completed
28/01/2021	Patient is to be notified under duty of candour by clinical team.	Clinical Team	

**Incident Management Team
Serratia Colonisation in NICU, RHC
Friday 30th April 2021
2.00pm
Via MS Teams**

Present:

Dr Linda Bagrade (chair)	Consultant Microbiologist/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Sandra Devine	Acting Infection Control Manager
Annette Rankin	Nurse Consultant, ARHAI
David MacDonald	Head of Facilities
Patricia Coyne	Professional Lead Domestic
Melville MacMillan	Estates Engineer Manager
Tracy Clinton	Senior Charge Nurse
Dr Colin Peters	Neonatal Consultant
Melanie Hutton	Clinical Service Manager
Neil McSeveny	Senior Communications Officer
Patricia Friel	Acting Chief Nurse
Kerr Clarkson	Site Manager Operational Estates
Dr Alison Balfour	Consultant Microbiologist/Infection Control Doctor
Hugh Brown	Site Manager Operational Estates
Dr Anne Marie Heuchan	Consultant Neonatologist
Ewan Smith	Head of Estates
Jamie Redfern	General Manager
Morag Campbell	Consultant Neonatologist
Pamela Joannidis	Acting Associate Nurse Director IPC
Professor Angela Wallace	Interim Director of Infection Prevention & Control

		ACTION
1.	Introduction	
	<p>Dr Bagrade welcomed everyone to the meeting and introductions were made from the above mentioned.</p> <p>This is the first meeting to discuss a cluster of <i>Serratia marcescens</i> colonisation and blood cultures in Neonatal Unit, RHC. There is an increased incidence of GNB isolates in the unit in general and have breached the upper warning limit. Dr Bagrade said the focus today was to mainly concentrate on the situation regarding the Serratia cluster and to have discussion regarding the control measures in place and if there are any other issues to consider.</p>	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality. Dr Bagrade informed that this meeting is being recorded as there is no admin support today but will be deleted from MS Teams in 20 days or when minutes are accepted.	

		ACTION
3.	Incident Update	
	<p>Dr Heuchan provided an overview of the Neonatal Unit. She said this is the largest Neonatal Unit in Scotland and work to a capacity of up around 50 beds with approximately 35 intensive care and high dependency care with the remainder being made up of as special care beds. The unit provides additional specialist services for babies around the country including ECMO, cardiac services and cardiac surgery, all neonatal general surgery, ENT surgery and airway surgery. The mix of patients in the unit include patients that get a severity scoring equivalent of patients in PICU rather than neonatal units around the country.</p> <p>The workload is extremely intense with a high focus on intensive care and high dependency care. It is multi disciplinary and works across a lot of specialities across different sites. There has been a long term focus on infection prevention due to the extreme vulnerability of the babies as many are complex babies that are extremely premature and small. Dr Heuchan reported they try to avoid infections in these babies and reduce the incidence of multi resistant organism colonisation and have a programme of regular screening of babies. This involves screening from HDU and ITU babies of ET secretions or airway secretions and around wound swabs. This is the only unit in Scotland that does this extensive screening which can lead to an increased number of isolates from babies which triggers scrutiny of any environmental issues in the unit and staff precautions and procedures.</p>	
	<u>General Situation Update</u>	
	<p>A PAG was held on 13th April 2021 regarding a <i>Serratia marcescens</i> cluster of three cases. Three cases are the same type SERN07SE-20 which is not a common type seen in the unit and only had this type six times since 2019. A further two cases have since been identified and today Gillian Bowskill informed of another case of a colonisation [REDACTED]. Total number of patients with <i>Serratia marcescens</i> is 6. A PAG was held on 23rd April for a cluster of three <i>Enterobacter cloacae</i> colonisations all from ETAs. Typing for 2 of these cases is outstanding, the third sample was misplaced in the lab and therefore will not be available for typing. The <i>Serratia marcescens</i> cluster seems mainly focussed in [REDACTED] and <i>Enterobacter cloacae</i> focus is in [REDACTED].</p> <p>The general background is that there have been 2 gram negatives incidents in the unit. It is unusual to have two clusters of colonisations within a few weeks of each other.</p> <p>[REDACTED]</p> <p>The SPC charts for colonisation show that NICU are reaching the upper warning limit for the unit.</p> <p>In terms of the <i>Serratia marcescens</i> and <i>Enterobacter cloacae</i> cases Dr Bagrade informed that they are mainly non-invasive and from normal routine screening samples but to note that this NICU is the only unit in Scotland that does this extensive screening.</p>	

One of the samples is from Broncho alveolar lavage and Dr Peters reported this was not from routine screening and was identified as *Serratia marcescens*, Dr Bagrade confirmed there were two invasive isolates (BC and BAL) and all the rest are superficial colonisation.

Sandra Devine said the chart and methodology that was used in PICU was introduced in NICU. This was a proposal by HPS which puts all the gram negative cases together and clusters of all organisms together. She said this was a novel way to look at this and this was then introduced to NICU.

A document was issued to the IMT with the invite to this meeting which details four different SPC charts with two separate charts presented in two different ways. One chart lists the total number of isolates and the other chart consists of occupied bed day's data. Sandra Devine said this is not the only process that will pick up clusters by using trigger tools.

Annette Rankin asked if a timeline will be completed as this will be helpful if there was one. Professor Leonard has contacted ARHAI to look at triggers and to do some more work regarding this.

Dr Peters said to note that on the basis the chart is above the warning limit in April the number of occupied bed days is calculated from the data for January, February and March and the April's data have not been confirmed yet. Dr Bagrade commented that this is mentioned as a caveat on the chart.

Patient Report

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Dr Peters updated regarding the acuity of the unit and stated that this is recorded in the unit every day and it looks at the intensive and high level care bed days from January onwards.

	<p>In January the indicator was just over 550, February had approximately 390, March had just over 570 and for April it has been 676 to date. This makes April significantly higher than the previous three months. He reported that every morning they look at whether a baby is considered to be intensive care, high level of care or special care based on the set of criteria developed by the British Association of Medicine. This is recorded to determine staffing levels and admissions.</p> <p>Jamie Redfern asked what data Infection Control require. He asked if it is the number of babies in the unit or if Infection Control are interested in how the unit calculates occupancy which is linked to the dependency level of the baby. This is calculated around the impact regarding nursing e.g. 1 nurse to 4 special care babies, 2 to high dependency or 1:1 or 2:1. From the charts provided he said that he is not sure what is used and commented that if the information is provided from Business Intelligence then the data is based on number of babies in unit and will not know about dependency levels.</p> <p>In terms of occupied bed days data from Business Intelligence Dr Campbell advised that this data significantly underestimates the activity on RHC site and the complexity of babies in the unit. Therefore the acuity of care in ITU and HDU increases the risk of nosocomial infection and length of time in the unit and this is not captured in the diagram. She said there is more robust data available on Badgernet and the dashboard data is based on the time of day the data is taken.</p> <p>Dr Heuchan looked at occupancy numbers and acuity before the meeting started and from second half of March to the first half of April both acuity and numbers were raised.</p>	
	Microbiology Report	
	<p>With regards to the Serratia patients Dr Bagrade informed that there are six patients and three isolates have been typed which are the same. Two are in progress and the third isolate is being sent for typing. This is a 0720 cluster with three cases with one in 2019 and two cases in 2020.</p> <p>The typing for the <i>Enterobacter cloacae</i> is in progress and not all three samples were available for typing and only two will be sent for typing.</p> <p>Dr Bagrade reported that other GNB are not classified as a cluster therefore will not have typing results as not recognised as a cluster.</p>	
	Other Relevant Reports	
	<p>When the unit initially had the first 3 Serratia cases a deep clean of the room involved was carried out and twice daily cleaning continues by Facilities. Transmission based precautions are in place around the babies. Gillian Bowskill reported that there is a working group with IPCT and the Neonatal Consultants and one of the actions previously raised was to have six monthly HPV clean. This was completed in September and was scheduled again for April which started but due to the acuity of the unit had to be postponed.</p>	

Following the PAG for Serratia a SICPs audit was carried out with a score of 91%.

A piece of equipment was not cleaned properly which was a milk warmer but this has since been rectified. A hand hygiene audit was completed with a score of 90%. One trained nurse and one student nurse failed to clean their hands at appropriate times and properly. The last IPCAT carried out was in August and scored 88% but the IPCAT programme has been suspended since then. There was a plan to repeat the hand hygiene and SICPs audit but due to the pressures in the ward and the HPV this has been postponed.

Within NICU, estates said they only routinely sample water for Pseudomonas, Legionella and portable water indicators e.g. TVCs. On requirement these can be checked for gram negatives but all the taps in clinical areas of NICU are filtered.

Jamie Redfern asked if both floors are filtered in the clinical area and this was confirmed. There have not been any out of spec results in relation to TVCs and there have been no issues with the water. With regards to the last water result from 7th April the DSR Belfast sink on the 2nd floor and 1st floor were showing TVCs of 2 and 1 which is within limits but this cleared the week after, which could be related to flushing issues.

In terms of drain cleaning there is drain maintenance carried out with weekly dosing of the drains. Estates said that this is usually carried out on a Monday and Wednesday and there is evidence to support this.

Estates and Facilities confirmed that there is an ongoing regular environmental maintenance programme in place but have not identified any major issues in terms of water, drains or ventilation.

Annette Rankin asked if the Serratia cases were all linked to or been in [REDACTED] and Gillian Bowskill replied that the majority of them were. Dr Bagrade confirmed that the majority of patients have been in [REDACTED] but other [REDACTED] have had patients in them also. Annette Rankin said given that sampling is carried out she asked for confirmation that the weekly dosing in drains have been completed in [REDACTED]. Annette also asked when TVCs were last checked and what is the ventilation in [REDACTED] and when was this last checked. Kerr Clarkson replied that TVCs are not routinely checked on filtered taps as all areas in [REDACTED] have filtered taps. Patricia Friel confirmed that the DSR rooms are part of the weekly dosing programme.

With regards to the rooms Dr Peters reported that [REDACTED] are 6 bedded bays, are the same size and have trough sinks at either end, each with 2 taps which are filtered. Alcohol gel is available at each bed space, at the taps and on the way in to the room and ward. Dr Heuchan highlighted that [REDACTED] have had a high acuity of babies in that area.

4. Hypothesis

Dr Bagrade proposed to have two separate hypothesis for the Serratia cases and GNBs.

In relation to the Serratia Dr Bagrade said this could possibly be patient to patient or environment to patient transmission and most likely by staff hands or contaminated

	<p>equipment. Dr Campbell agreed there is a cluster of Serratia with a defined complex group of pre-term babies. The group agreed with the hypothesis for Serratia.</p> <p>The 2nd hypothesis is in relation to increased incidence of non-invasive GNB and this could be explained by intensity of bed occupancy and complexity of patient's clinical condition.</p> <p>In relation to the SPC charts that have been issued Annette Rankin states there are eight isolates and seven patients over a 14 day period and of these patients five were Serratia cases with another case added after the chart was issued. She suggested that it would be helpful to have a separate chart for the Serratia cases only. Dr Peters commented that on the SPC chart there is one point above the warning limit and this has been acted upon in terms of precautions.</p> <p>It was also discussed that if the Serratia cases were removed from the total GNB data this would not reach the warning limit.</p> <p>With regards to counting the number of isolates Dr Heuchan stated this should refer to the first isolate and a baby should not be counted twice in the data.</p> <p>In summary Dr Bagrade noted that the IMT were not comfortable with the 2nd hypothesis on increase of GNB cases in total as the data need more analysis therefore it will be removed.</p>	
5.	Risk Management & Control Measures	
	<p><u>Patients</u></p> <p>The three Serratia cases were cohorted [REDACTED]. There are limited single rooms in the unit but transmission based precautions are in place at all bed spaces for babies.</p> <p><u>General</u></p> <p>The ward has twice daily enhanced cleaning in place, staff clean twice daily around the bed space. Patricia Friel said this is normally carried out in a quick timescale but some of the equipment has had an HPV clean and she said they are trying to keep the equipment that has had a HPV clean separate. Dr Bagrade suggested that the HPV clean should start from the beginning. Dr Peters asked if they could cohort all the known Serratia cases into one space to allow the HPV clean to take place. Dr Heuchan highlighted that the clean had to stop as the babies were too unwell and suggested to have the two rooms cleaned. Dr Campbell advised to carry out the HPV clean in the unit would be good but the practicalities of doing this when the patients are so unwell would require more staff to support this. Dr Peters said to note the HPV clean was paused before [REDACTED] were cleaned.</p> <p>Gillian Bowskill asked if the HPV clean cannot be carried out if a deep clean of the unit would be possible. Dr Peters said this would involve moving babies but the rooms are at capacity and Dr Heuchan suggested to move the babies to level 2. Dr Peters advised that the three patients in [REDACTED] are able to be moved. There is the possibility to carry out a clean of [REDACTED] next week.</p>	
	<p>This will be discussed with the clinical team to look at the logistics in moving the patients to another level and for the nursing staff to support the babies.</p> <p>It was agreed that when the clinical staff in the unit feel the clean is possible they will liaise with Facilities to clean [REDACTED]. The unit were advised to contact the</p>	Clinicians

	<p>Duty Manager and they will arrange for a team to carry this out.</p> <p>Hugh Brown asked if the specialist contractor could visit [REDACTED] when it was empty to verify the ventilation and if he could be notified of availability to carry this out. As the vent cleaning programme is up and running he said there are several areas that they have not been able to access due to the pressures in the unit. Melville MacMillan confirmed that when the rooms were getting HPV cleaned the vents and the draining system were also cleaned. He confirmed that when this was completed the rooms were deep cleaned by the contractors before the Domestic staff cleaned the room.</p> <p><u>Staff</u> ICNs visit the unit regularly and Gillian Bowskill said she discussed the position with Dr Heuchan to make her aware of the situation.</p> <p>From the recent SICPs audit Gillian Bowskill said the hand hygiene audit score was 91% and Tracy Clinton advised the scores have been the same for the ward audit. Gillian Bowskill said that she will provide a Glow Box for the staff to carry out hand hygiene training.</p>	<p>H Brown</p> <p>G Bowskill</p>
<p>6.</p>	<p>Further Investigations Required</p>	
	<p>Further investigations that are required include:--</p> <ul style="list-style-type: none"> - Cleaning - If the HPV clean cannot be carried out Dr Bagrade suggested additional environmental screening in rooms 6 and 7 e.g. touched surfaces and shared equipment which could be the source for the organism. - With regard to environmental swabbing Gillian Bowskill agreed to carry this out next week if the HPV/cleaning is delayed. - To ask for Pharmacy to carry out an antibiotic review of patients. Dr Heuchan reported that this was carried out previously and it was agreed to lock back from January to April. - To carry out a peer review for SICPs audit. Pamela Joannidis carried this out in PRM and two SICPs audit were carried out in a month which Infection Control can arrange. <p>There is a working sub-group looking at the standardisation of the screening in the units in GGC to look at when to screen and how should the results be interpreted.</p> <p>Dr Bagrade said ARHAI will be involved in this work and it would be helpful to get specialist involvement with data analysis.</p>	<p>Clinical staff/Facilities</p> <p>IPCT</p> <p>AM Heuchan/Pharmacy</p> <p>P Joannidis</p>
	<p>She said a lot of the data is regarding clinical and screening isolates and asked ARHAI to assist with the data to see if GGC could develop a more logical early warning system. Annette Rankin confirmed that ARHAI were happy to help and discussions have already taken place with Professor Leanord and ARHAI.</p>	
<p>7.</p>	<p>Healthcare Infection Incident Assessment Tool (HIIAT)</p>	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as AMBER.</p> <p>Severity of illness – MODERATE Impact on Services – MINOR Risk of Transmission – MODERATE</p>	

	Public Anxiety – MODERATE In terms of public anxiety Professor Wallace agreed that this should be classed as Moderate and this can be downgraded and adjusted when more information is available.	
8.	Communications	
	Advice to Public	
	There will be a holding press statement and it was agreed not to release a statement as the conditions of the babies are not giving cause for concern.	Press Office
	Duty of Candour	
	All families have been informed of their baby's condition with the exception of the new case as Dr Peters has not been able to speak to the parents as yet. Dr Peters commented that the families may not be aware that the babies all have the same organism. Pamela Joannidis reported that a Serratia Patient Information leaflet might be helpful for the parents.	Clinicians
	Advice to Professionals	
	Staff are aware and are communicating with colleagues.	
	Media	
	A holding press statement will be compiled and Neil McSeveny agreed to assist.	
	ARHAI/Scottish Government HAI Policy Unit	
	IPC will complete the online reporting tool to inform ARHAI. Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	G Bowskill/ A Rankin
9.	AOCB	
	Pamela Joannidis said we need to consider an exit strategy from this incident at early stages of the process. Dr Bagraade agreed and noted that there needs to be a discussion on strategy for discontinuation of isolation in case of colonisation and this needs to be discussed in conjunction with Dr Heuchan and Dr Peters.	
10.	Date & Time of next meeting	
	It was agreed to have a further meeting on Wednesday 12 th May at 10.30am.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
30/04/21	Deep clean of Rooms ■ and ■ required. The unit will contact the Duty Manager arrange for the terminal clean when they feel this is achievable.	Clinicians	Completed
30/04/21	Clinical staff will liaise with facilities when they feel the unit is ready to complete the HPV treatment.	Clinicians	Completed 05.05.21
30/04/21	When the rooms are empty estates will arrange for the vents to be cleaned and verify the ventilation.	H Brown/estates	Completed
30/04/21	Gillian Bowskill to provide a Glow Box for the staff to carry out hand hygiene.	G Bowskill	Completed
30/04/21	Environmental swabbing will be carried out if deep clean/HPV cannot be carried out. If not this will be carried out post HPV.	G Bowskill	HPV completed 05.05.21, environmental swabbing postponed until 19.05.21.
30/04/21	Pharmacy to be requested to carry out an antibiotic review between January – April 2021.	Dr Heuchan/Pharmacy	Request made by Dr Heuchan.
30/04/21	Peer SICPs audits x2 to be carried out.	P Joannidis/J Heggie	Scheduled 13 th & 24 th May
30/04/21	Collaborative working to be arranged between the Clinical team, ARHAI and IPCT on the most appropriate use of Data	Clinicians/ARHAI/IPCT	
30/04/21	Review of screening protocols in the unit.	NICU working group	
30/04/21	Parents of last case to be informed of isolate.	Clinicians	
30/04/21	Timeline of cases	G Bowskill	Timeline commenced 26.04.21 and is updated as required.

**Incident Management Team
Serratia Colonisation in NICU, RHC
Wednesday 12 May 2021
10.30am
Via MS Teams**

Present:

Dr Linda Bagnade (chair)	Consultant Microbiologist/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Sandra Devine	Acting Infection Control Manager
Annette Rankin	Nurse Consultant, ARHAI
Patricia Coyne	Professional Lead Domestic
Dr Anne Marie Heuchan	Consultant Neonatologist
Dr Pepi Valyraki	Consultant Microbiologist/Infection Control Doctor
Dr Morag Campbell	Consultant Neonatologist
Kerr Clarkson	Site Manager Operational Estates
Janice Heggie	Lead Nurse
Dr Colin Peters	Neonatal Consultant
Lynette Cameron	Clinical Risk Manager
Jamie Redfern	General Manager
Hugh Brown	Site Manager Operational Estates
Melanie Hutton	Clinical Service Manager
Karen Taylor	Senior Charge Nurse

		ACTION
1.	Introduction	
	Dr Bagnade welcomed everyone to the meeting. She said this is the second meeting to discuss a cluster of <i>Serratia marcescens</i> colonisation and GNBs in Neonatal Unit, RHC.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality. Dr Bagnade informed that this meeting is being recorded as there is no admin support today but will be deleted from MS Teams in 20 days or when minutes are accepted.	
3.	Minutes of Previous Meeting	
	The minutes of the previous meeting were issued with the agenda and accepted as an accurate record. Dr Bagnade asked if there were any further comments to let her know.	

		ACTION
4.	Incident Update	
	<u>General Situation Update</u>	
	<p>Gillian Bowskill provided an update on the general situation.</p> <p>At the last IMT there were six cases of <i>Serratia marcescens</i> and a new case was identified on 10th May from an ETA colonisation.</p> <p>From the original cohort there are four babies in the unit and one baby is an HAI to RAH. All babies are placed in [REDACTED]. Gillian Bowskill reported that the latest [REDACTED].</p> <p>Yesterday Gillian Bowskill reported that they were alerted to another case that had been in the unit for [REDACTED] in April [REDACTED] and has isolated <i>Serratia marcescens</i>. This is an HAI to [REDACTED]. Dr Bagnade said at the moment this case cannot be associated with this incident and will not be included in the total numbers at the moment but will be considered as a possible case and situation will be reviewed once typing result has received.</p> <p>Typing from the reference lab are not available as Dr Bagnade said the results usually take around two weeks before they are received.</p> <p>A hand hygiene audit was carried out by the Hand Hygiene Co-ordinator with a result of 100% for opportunities and 85% for overall compliance. The lower rate for compliance related to visiting medics and these medics were approached by the Hand Hygiene Co-ordinator to inform them they did not carry out the correct hand hygiene procedure. It was agreed that there needs to be communication of what is expected of visiting staff. Dr Campbell and Dr Heuchan agreed to issue communication to visiting colleagues regarding compliance with hand hygiene.</p> <p>When the visitors arrive in the ward Jamie Redfern asked if the visitors inform the Senior Charge Nurse of their arrival. Dr Campbell said as the ward is very busy sometimes the visitors carry out their duties without informing the Senior Charge Nurse. Karen Taylor said they try and challenge visitors in the unit but they can maybe look at the number of people in the unit at the one time as sometimes a Consultant can arrive with 6 or 7 people.</p> <p>Sandra Devine asked Gillian Bowskill to speak to the Hand Hygiene Co-ordinator to see if there is any literature available to support the unit and any novel ways to improve compliance with hand hygiene.</p> <p>In the unit Gillian Bowskill reported that bowel washouts are carried out in the rooms and wondered if this is an increased practice which could be related to the number of GNBS.</p>	<p>Dr Campbell/ Dr Heuchan</p> <p>G Bowskill</p>
		ACTION

	<p>Dr Bagrade said this could possibility be the reason for environmental contamination in the unit and asked if it would be useful to review the practice. Dr Peters said this is not any different to a baby with a nappy change or if they have a stoma. Dr Bagrade suggested that maybe this is a time to review all processes especially those involving gut microflora. Dr Peters and Dr Campbell agreed this is something they can look at. Gillian Bowskill asked if there was a SOP or a process regarding bowel washouts. She was informed that the Nurse Specialist teaches the more senior staff to carry this out and there is a teaching pack for staff and parents. Karen Clinton to forward a copy of the pack to Gillian Bowskill.</p>	K Clinton
	Patient Report	
	As of yesterday Gillian Bowskill advised that the babies in the cohort and single room are all stable. Tracy Clinton also confirmed all babies were stable today.	
	Microbiology Report	
	There are no typing results received to date to support a hypothesis.	
	Other Relevant Reports	
	<p>Hugh Brown reported that the verification of ventilation was carried out in rooms ■ and ■ and are within all parameters that are required. Rooms 4 and 5 were carried out and verifications will be carried out throughout the full ward area. He confirmed that he will send this information to Dr Bagrade.</p> <p>All the drain maintenance procedures are carried out and signed off.</p> <p>The environmental sampling will be carried out next week.</p> <p>Sandra Devine suggested to confirm the case definition. Dr Bagrade said a confirmed case is any baby with <i>Serratia marcescen</i> with either colonisation or invasive isolate that can be attributed to NICU. This means acquired either at 48 hours in the unit or more.</p> <p>Possible case is any baby with <i>Serratia marcescens</i> colonisation or invasive infection and has been in the unit but the acquisition cannot be attributed to the unit.</p> <p>The baby discussed earlier that was in the unit for more than 10 days ago will not be included in the total numbers at the moment and will be considered as possible case but if the typing comes back the same this case will be included in the numbers.</p>	H Brown
5.	Hypothesis	
	Dr Bagrade said the hypothesis has not changed since the last meeting and the IMT agreed with this.	
6.	Risk Management & Control Measures	
	<p><u>Patients</u></p> <p>Dr Bagrade reported that with regards to the babies this is skin colonisation and not an invasive disease which would not require strict cohorting. As a condition this does not exclude the possibility that the babies might get colonised with other organisms. If possible, Dr Bagrade recommended that the babies are placed</p>	

	together in the one area.	
	<p>[REDACTED]</p> <p><u>General</u></p> <p>Twice daily cleaning is carried out in the whole unit and Pat Coyne confirmed this will continue.</p> <p>Dr Bagrade stated that the positive result does not mean that acquisition of <i>Serratia marcescens</i> happened recently and could have happened a while ago. She said she is not sure when acquisition happened and if do not see any more cases could be confident control measures are preventing further spread. Once the typing results are received Dr Bagrade said the new baby may be included in the figures.</p> <p>Annette Rankin pointed out that if the baby in the [REDACTED] was exposed there were exposed prior to control measures and are not a failure of control measures.</p> <p><u>Staff</u></p> <p>Staff are aware of the situation and the control measures that are in place.</p> <p>Dr Peters said this was also included in the Medical Safety Brief.</p> <p>Hand hygiene education is carried out and will be included in the Safety Brief.</p> <p>A glow box is available in the unit. Dr Peters reported that they have their own glow box on Level 2. Dr Bagrade suggested that the glow box is positioned at the entrance to the ward.</p> <p>ICT visit the unit twice a week and can assist with any education.</p>	ACTION
7.	Further Investigations Required	
	<p>An email will be issued to visiting colleagues in the unit regarding hand hygiene.</p> <p>The Hand Hygiene Co-ordinator to maybe identify novel ways to increase compliance with hand hygiene.</p> <p>The unit to look at usual routine practice for all procedures involving gut microflora.</p> <p>At the entrance to Ninewells hospital Dr Peters advised that they have an audio message and asked if there is something GGC could do when staff are waiting for the doors to open to the unit. He suggested that an audio message is played to ensure hand hygiene is carried out. Sandra Devine said that as we have a dedicated Hand Hygiene Co-ordinator this is something he could look into.</p>	Clinicians/ Nursing team
		ACTION

	Pat Coyne said there are security staff at the front door and as part of their role ask staff and visitors to use the hand sanitisers when entering the building. Dr Peters commented that sometimes the security staff do not ask for an ID badge and Pat Coyne agreed to raise this with their manager as they meet on a daily basis.	P Coyne
8.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as AMBER . Severity of illness – MINOR Impact on Services – MINOR Risk of Transmission – MODERATE Public Anxiety – MODERATE	
9.	Communications	
	Advice to Public, Patients and Families	
	No update required.	
	Duty of Candour	
	Clinicians to assess if any Duty of Candour process is required.	Clinicians
	Advice to Professionals	
	Dr Campbell and Dr Heuchan to issue an email to visiting colleagues.	
	Media	
	Sandra Devine to contact communications to ask if a press statement is required.	S Devine
	ARHAI/Scottish Government HAI Policy Unit	
	IPC will complete the online reporting tool to inform ARHAI. Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	IPC A Rankin
10.	AOCB	
	Nil.	

		ACTION
11.	Action list with timescale and allocated responsibility	
	<ul style="list-style-type: none"> - Duty of Candour discussion is ongoing with Clinical Governance to optimise this process. - Pharmacy audit is in progress. - Dr Campbell and Dr Heuchan to issue communication to visiting colleagues regarding compliance with hand hygiene. - Hand Hygiene Co-ordinator to look at novel ways to improve compliance with hand hygiene. - Clinical and nursing team will look at practices for procedures regarding gut microflora. 	IPCT and CGT Dr Heuchan Dr Campbell/ Dr Heuchan HH Coordinator NICU clinical and Nursing team
12.	Date & Time of next meeting	
	It was agreed to have a further meeting on 24 th May at 11.00am.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
12/05/21	Dr Campbell and Dr Heuchan to issue communication to visiting colleagues regarding compliance with hand hygiene.	Dr Campbell/ Dr Heuchan	
12/05/21	Gillian Bowskill to speak to the Hand Hygiene Co-ordinator to see if there is any literature available to support the unit and any novel ways to improve compliance with hand hygiene.	G Bowskill	
12/05/21	Karen Clinton to forward a copy of the teaching pack regarding bowel washouts to Gillian Bowskill.	K Clinton	
12/05/21	Hugh Brown to send Dr Bagnard the verification of ventilation that was carried out in the unit.	H Brown	
12/05/21	The unit to look at usual routine practice for all procedures involving gut microflora.	Clinicians/ Nursing team	
12/05/21	Dr Peters commented that sometimes the security staff do not ask for an ID badge and Pat Coyne agreed to raise this with their manager.	P Coyne	
12/05/21	Clinicians to assess if any Duty of Candour process is required.	Clinicians	
12/05/21	Sandra Devine to contact communications to ask if a press statement is required.	S Devine	
12/05/21	IPC will complete the online reporting tool to inform ARHAI.	IPC	
12/05/21	Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	A Rankin	
30/04/21	Environmental swabbing will be carried out if deep clean/HPV cannot be carried out. If not this will be carried out post HPV.	G Bowskill	HPV completed 05.05.21. Environmental swabbing not carried out. Agreed to postpone this and should be carried out next week.

30/04/21	Pharmacy to be requested to carry out an antibiotic review between January – April 2021.	Dr Heuchan/Pharmacy	Dr Heuchan waiting on update from Pharmacy.
30/04/21	Peer SICPs audits x2 to be carried out.	P Joannidis/J Heggie	Scheduled 13 th & 24 th May
30/04/21	Collaborative working to be arranged between the Clinical team, ARHAI and IPCT on the most appropriate use of Data	Clinicians/ARHAI/IPCT	ICDs and nursing team met yesterday in clarifying how this process can be taken forward. Dr Bagrade to discuss with clinicians before having a meeting with ARHAI. IPC Data Team to provide support in relation to any data being developed.
30/04/21	Review of screening protocols in the unit.	NICU working group	The screening protocols will be discussed with ARHAI.
30/04/21	Parents of last case to be informed of isolate.	Clinicians	With regards to Duty of Candour Dr Peters reported that parents were explained of transmission based precautions and given information separately if cohorting of patient to be carried out. Lynnette Cameron is assisting IPC with Duty of Candour on the agenda for IMTs.
30/04/21	Timeline of cases	G Bowskill	Timeline commenced 26.04.21 and is updated as required and will send to IMT members.

**Incident Management Team
Serratia Colonisation in NICU, RHC
Tuesday 18 May 2021
10.00am
Via MS Teams**

Present:

Dr Linda Bagrade (chair)	Consultant Microbiologist/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Sandra Devine	Acting Infection Control Manager
Janice Heggie	Lead Nurse
Patricia Friel	Lead Nurse
Dr Colin Peters	Neonatal Consultant
Pamela Joannidis	Acting Associate Nurse Director, IPC
Patricia Coyne	Professional Lead Domestic
Kerr Clarkson	Site Manager Operational Estates
Annette Rankin	Nurse Consultant, ARHAI
Dr Anne Marie Heuchan	Consultant Neonatologist
Jamie Redfern	General Manager
Dr Pepi Valyraki	Consultant Microbiologist/Infection Control Doctor
Dr Morag Campbell	Consultant Neonatologist
Morag Liddell	Senior Charge Nurse

		ACTION
1.	Introduction	
	Dr Bagrade welcomed everyone to the meeting. She said this is the third meeting to discuss a cluster of <i>Serratia marcescens</i> colonisation and GNBs in Neonatal Unit, RHC. This meeting was called at short notice as there is a new case with an invasive infection. The aim of the meeting is to assess if this new information changes management of the incident and to agree on additional control measures if required.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality. Dr Bagrade informed that this meeting is being recorded as there is no admin support today but will be deleted from MS Teams in 20 days or when minutes are accepted.	
3.	Minutes of Previous Meeting	
	The minutes of the previous meeting are not available as yet.	

		ACTION
4.	Incident Update	
	<u>General Situation Update</u>	
	<p>Gillian Bowskill provided an update on new information received yesterday.</p> <p>Since the last IMT Gillian Bowskill reported that yesterday they were notified of a new baby with a positive blood culture for <i>Serratia marcescens</i> and this baby was not colonised before with this microorganism. [REDACTED]</p> <p>[REDACTED]</p> <p>In total there are 6 babies in the unit [REDACTED]</p> <p>[REDACTED]</p>	
	Patient Report	
	<p>It was noted that the newest baby has been very unwell but there is time and place association with the known positive case in April. Dr Bagnade said it is difficult to assess when <i>S.marcescens</i> is acquired as it could be in April or some time later.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	

		ACTION
Microbiology Report		
<p>At the moment there are 8 confirmed cases and 1 possible case.</p> <div style="background-color: black; width: 452px; height: 87px; margin-bottom: 10px;"></div> <p>Dr Bagrade discussed this with Professor Leanord regarding what the additional band differences mean in terms of relatedness. His opinion is that on whole genome sequencing the band differences on pulse field could show that these organisms are not closely related but that needs to be confirmed with whole genome sequencing. Dr Bagrade will speak to GRI RL to ask if WGS can be done for these isolates.</p> <p>At the moment there are 3 cases that are the same on PFGE and 3 that could be different and that would suggest that there could be multiple acquisitions from multiple sources or a source somewhere in the unit that could be a cluster of different types of <i>Serratia marcescens</i>. Dr Bagrade said all the cases are not the same and currently we are dealing with multiple risk factors and might not have one source or one transmission vector. Annette Rankin stated this might not be person to person transmission and could be acquired from an environmental source and Dr Bagrade said to keep an open mind and not dismiss any hypothesis at the moment.</p>		
Other Relevant Reports		
	<p>An action from a previous IMT was to undertake an audit and Pamela Joannidis informed that this was to be undertaken on 13th May. As the unit was extremely busy and the footfall in the unit was quite high, Pamela Joannidis said they chose to do a walkround instead to look at observation of practice. A list of actions have been prepared and Pamela Joannidis reported that they intend to carry out a full audit at a further date.</p> <p>Gillian Bowskill summarised the findings from the walkround:-</p> <ul style="list-style-type: none"> - Cleanliness of equipment needs to be improved - Some cot spaces cleaned for admissions that were visibly not clean - Mail box system that were dusty - Sink in lab room was not clean and had blood spots on it - Generalised clutter in unit - Practice issues e.g. member of staff topping up various cupboards in rooms and wearing same apron and gloves going into different rooms 	

		ACTION
	<p>Infection Control will repeat a hand hygiene and SICPs audit in the unit. Teaching has started and the unit have been provided with flash cards for staff that are placed at the end of the trolleys. Larger versions of the flash cards have been provided for discussion at the Safety Brief. Gillian Bowskill said they also asked that there is a reduction in the amount of staff in a room as at one point there were 17 members of staff in one room on a ward round and this has been actioned. ICNs are finishing off toolbox talks based on SICPs and these have been taken to the education team in the unit to cascade the information to the staff.</p> <p>Sandra Devine said she had spoken with Angela O'Neill and she has requested that we carry out enhanced supervision in the unit with the same model that was used in PICU and Ward 6A. Dr Bagrade asked if the supervision could be adapted to the situation as this is different to other areas and Sandra Devine said this could be modified but to keep the core information. Jamie Redfern asked how NICU is different to PICU and Ward 6A and Gillian Bowskill said the difference is that there have not been any Estates or Facilities issues in this unit compared to the other wards and the emphasis is on practice and cleanliness of NICU environment. Pamela Joannidis said it was equipment issues that were noted in NICU.</p> <p>A walkround of the area will take place with the Lead Nurse, Infection Control, Estates and Facilities colleagues and this will be taken forward as an action.</p> <p>The clinical staff have created an Action Plan from the observations reported and include the following:-</p> <ul style="list-style-type: none"> - Immediately any equipment not cleaned was removed at the time of the audit. - Prompt cards have been circulated to the team and concerns highlighted at nursing handovers and on medical safety briefs. - Dr Campbell has emailed visiting specialities to try and reduce the number of visitors to the unit and to maintain social distancing. - Janice Heggie to undertake a peer SICPs audit with one of the other Lead Nurses and this is scheduled for tomorrow. - To develop toolbox talks and education teams to roll out. - Checked Statutory Mandatory training and have been assured that staff have completed these. - Additional Healthcare workers will assist with the cleaning process e.g. mailbox systems. It was recognised that storage in the unit is limited due to the amount of equipment required. - To review the weekly SCN assurance document to ensure that there is adequate cover for areas of concern. One estate issue had been identified but this has been reported to Estates for repair. <p>Dr Heuchan commented that looking at the unit today the footfall is still too high. Medical students have been brought in by other departments to the unit and she suggested to speak to the undergraduate team to say the unit cannot accommodate students at this time. Dr Campbell said in relation to footfall in the unit she is happy to discuss this with the clinicians concerned.</p>	
		ACTION

	<p>The focus of the unit includes increased cleaning, transmission based precautions and hand hygiene but Dr Heuchan noted this has happened before despite previous excellent hand hygiene audits.</p> <p>Morag Liddell advised that one of the SCNs said that drain cleaning is taking place and samples are being taken from the drains although they do not receive feedback regarding this. She said they are having to gel hands after washing hands because of the water but tap water is being used for washing babies as Procurement are finding it difficult to source wipes.</p> <p>The IMT agreed that it is not acceptable that wipes for babies cannot be sourced. Gillian Bowskill said that she was informed that these can be ordered via a non stock indent and previously provided an order number for these. Procurement are trying to get the wipes available on PECOS and Janice Heggie said they can receive wipes but not the quantity they have ordered or what the unit require. She said after the meeting she will check with Procurement what stock is available for the wipes. Jamie Redfern agreed that he can escalate this to the Head of Procurement as an action from this IMT. Annette Rankin asked when the wipes not available from as this could be a change of practice as now introducing tap water that was not done before.</p> <p>During discussion it was thought that the drains have been swabbed but this was not the case. Kerr Clarkson confirmed there are point of use filters on all the taps and the water supply is filtered but not chlorinated in Neonatal Unit. He said the filter on the taps have been changed regularly and no issues have been identified. Jamie Redfern asked where the water supply comes from and was informed that the water in the new building comes from the town's mains straight into the break tank. Old Maternity building has its own main supply and is completely independent. Kerr Clarkson to provide a summary of how the water is supplied to the unit and confirmed that routine water sampling is carried out quarterly for legionella, TVCs and Pseudomonas but testing for Gram negative bacteria are not included in the sampling.</p> <p>In relation to the sanitisation of drains Pat Coyne confirmed there is a regular programme and this is carried out on a weekly basis. She said that Hyson is put down the drains and documentation is available to confirm this. Dr Bagrade said to note that the water that comes out of the tap is not the same as the drain and are two separate things. Annette Rankin suggested to sample the drains and Dr Bagrade said there will be an environmental sampling done in the unit. Kerr Clarkson reported that work was carried out in the drains and from a previous incident advice was given to change the bottle traps. He said he has a paper in relation to this and will issue this to IMT.</p> <p>Dr Heuchan said she is anxious that the unit had a HPV clean and some equipment was still contaminated. Jamie Redfern asked if the cleanliness in the unit at the time of the walkround would be adequate for HPV clean and IPCT stated this is unlikely the case. Dr Bagrade said the equipment and environment needs to be thoroughly cleaned before the HPV clean takes place otherwise it is not effective. She stated that HPV clean does not replace your normal terminal clean but works in addition to that.</p>	<p>J Heggie</p> <p>J Redfern</p> <p>K Clarkson</p> <p>K Clarkson</p>
		<p>ACTION</p>

	<p>Jamie Redfern said they have a sign off system in place when an area has been cleaned and this could be checked before a HPV clean can be carried out. At a previous meeting it was noted it is difficult to do a HPV clean in one go and all the aspects of this process should be reviewed.</p> <p>During the previous HPV clean the rooms were cleared, drains and vents were done, walls were washed and domestic staff washed the floors and every piece of equipment brought back to the room were cleaned again. Extra domestic staff and housekeepers were brought in and the full HPV clean was not completed due to the high acuity in the unit. It was also noted there is nowhere to store any extra equipment if that is required to facilitate HPV clean. Dr Bagnade asked for this discussion to take place outside of this IMT.</p>	
<p>5.</p>	<p>Hypothesis</p>	
	<p>Dr Bagnade said the hypothesis is an unidentified source in the unit and possible environment to patient or patient to patient transmission.</p>	
<p>6.</p>	<p>Risk Management & Control Measures</p>	
	<div style="background-color: black; width: 100%; height: 116px; margin-bottom: 10px;"></div> <p>Jamie Redfern stated that there are uncertainties regarding other units in Scotland being able to take patients if we are full but the unit will review admissions. Dr Campbell advised that we need to acknowledge the levels of acuity and capacity issues across of the central belt of Scotland. She said the unit is also operating understaffed. Morag Liddell said this morning they were short staffed and discussions have been ongoing for patients to be transferred to other units. Edinburgh and Wishaw hospitals have been closed and were still closed as of yesterday. Patients requiring admission to the NICU will be reviewed on a case to case basis. Patricia Friel said they did declare the unit was understaffed this morning and a staff member was identified from RAH that could assist. Dr Campbell said sometimes there is not an option to transfer babies to other units as they can be extremely unwell. Sandra Devine said to be aware that if another baby is identified with <i>Serratia marcescens</i> we might need to review if unit needs to restrict admissions temporary. Jamie Redfern stated that as there is a Paediatric ICU could a satellite area be created for new patients.</p> <p>In a previous incident in the unit Pamela Joannidis commented that a protocol was prepared with a list of babies that would be accepted in the unit or ones that can be transferred and suggested this was used.</p>	

		ACTION
7.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as <u>AMBER</u>.</p> <p>Severity of illness – MODERATE Impact on Services – MODERATE (due to reviewing admissions to the unit) Risk of Transmission – MODERATE Public Anxiety – MODERATE</p>	
8.	Communications	
	Advice to Public, Patients and Families	
	No update required.	
	Duty of Candour	
	Nil to update.	
	Advice to Professionals	
	Clinicians to update their colleagues.	
	Media	
	James Doherty asked if there is any substantial change to the operation of the unit to inform them so that the holding press statement can be updated. Dr Peters said the unit may change its status based on acuity and it may be difficult to establish that we are redirecting patients because of acuity and not because of infections. If the update is not infection related James Doherty said from a Comms perspective they would not need to be informed.	
	ARHAI/Scottish Government HAI Policy Unit	
	IPC will complete the online reporting tool to inform ARHAI. Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	IPC A Rankin
9.	AOCB	
	Dr Heuchan commented that years after the last <i>Serratia marcescens</i> cluster when the unit was declared as red risk category and they were asked to defer patients elsewhere she feels there is no process to acknowledge that what we have is colonisation and not an invasive infections. In terms of infected babies she believes there is no evidence that the unit is worse than anywhere else in the country. There will also be an anxiety for parents if the unit are not able to take patients and said it will not be possible to close the biggest unit in the country. Dr Bagrade agreed this needs to be taken into consideration and advised that she sent out a meeting request on Friday to Dr Heuchan and Dr Peters to discuss the screening protocol in the unit and development of early warning systems.	

		ACTION
	There is a surveillance system in place looking at GNB colonisation and invasive diseases in the unit. In April it was reported that the upper warning limit was breached for the gram negative colonisations. On checking the figures this morning Dr Bagrade reported that there are 8 gram negative cases in the unit and the upper warning limit is 12 which means the warning limit has not been triggered yet but they are aware of the situation in the unit.	
10.	Action list with timescale and allocated responsibility	
	An email will be issued by Dr Bagrade with a list of the actions from the meeting.	Dr Bagrade
11.	Date & Time of next meeting	
	It was agreed to have a further meeting on 24 th May at 11.00am.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
18/0521	HPV cleaning process will be reviewed and agreed	IPCT/ward management	
18/05/21	Enhanced supervision walkrounds will be initiated	IPCT/ward management	
18/05/21	Dr Heuchan commented that looking at the unit today the footfall is still too high. Medical students have been brought in by other departments to the unit and she suggested to speak to the undergraduate team to say the unit cannot accommodate students at this time. Information to visiting teams needs to be issued highlighting the need for compliance with SIPC/HH and reducing number of visiting specialists if possible.	Dr Heuchan / Dr Campbell	
18/05/21	Janice Heggie said after the meeting she will check with Procurement what stock is available for the water wipes used for washing babies. Jamie Redfern agreed that he can escalate this to the Head of Procurement as an action from this IMT.	J Heggie / J Redfern	
18/05/21	Kerr Clarkson to provide a summary of how the water is supplied to the unit and what the testing regime is and what are the latest results.	K Clarkson	
18/05/21	Kerr Clarkson reported that work was carried out on the drains and from a previous incident advice was given to change the bottle traps. He said he has a paper in relation to this and will issue this to IMT.	K Clarkson	
12/05/21	Dr Campbell and Dr Heuchan to issue communication to visiting colleagues regarding compliance with hand hygiene.	Dr Campbell/ Dr Heuchan	

12/05/21	Gillian Bowskill to speak to the Hand Hygiene Co-ordinator to see if there is any literature available to support the unit and any novel ways to improve compliance with hand hygiene.	G Bowskill	
12/05/21	Karen Clinton to forward a copy of the teaching pack regarding bowel washouts to Gillian Bowskill.	K Clinton	
12/05/21	Hugh Brown to send Dr Bagraade the verification of ventilation that was carried out in the unit.	H Brown	

12/05/21	The unit to look at usual routine practice for all procedures involving gut microflora.	Clinicians/ Nursing team	
12/05/21	Dr Peters commented that sometimes the security staff do not ask for an ID badge and Pat Coyne agreed to raise this with their manager.	P Coyne	
12/05/21	Clinicians to assess if any Duty of Candour process is required.	Clinicians	
12/05/21	Sandra Devine to contact communications to ask if a press statement is required.	S Devine	
12/05/21	IPC will complete the online reporting tool to inform ARHAI.	IPC	
12/05/21	Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	A Rankin	
30/04/21	Environmental swabbing will be carried out if deep clean/HPV cannot be carried out. If not this will be carried out post HPV.	G Bowskill	HPV completed 05.05.21. Environmental swabbing not carried out. Agreed to postpone this and should be carried out next week.
30/04/21	Pharmacy to be requested to carry out an antibiotic review between January – April 2021.	Dr Heuchan/Pharmacy	Dr Heuchan waiting on update from Pharmacy.
30/04/21	Peer SICPs audits x2 to be carried out.	P Joannidis/J Heggie	Scheduled 13 th & 24 th May
30/04/21	Collaborative working to be arranged between the Clinical team, ARHAI and IPCT on the most appropriate use of Data	Clinicians/ARHAI/IPCT	ICDs and nursing team met yesterday in clarifying how this process can be taken forward. Dr Bagraade to discuss with clinicians before having a meeting with

			ARHAI. IPC Data Team to provide support in relation to any data being developed.
30/04/21	Review of screening protocols in the unit.	NICU working group	The screening protocols will be discussed with ARHAI.
30/04/21	Parents of last case to be informed of isolate.	Clinicians	With regards to Duty of Candour Dr Peters reported that parents were explained of transmission based precautions and given information separately if cohorting of patient to be carried out. Lynnette Cameron is assisting IPC with Duty of Candour on the agenda for IMTs.
30/04/21	Timeline of cases	G Bowskill	Timeline commenced 26.04.21 and is updated as required and will send to IMT members.

**Incident Management Team
Serratia Colonisation in NICU, RHC
Monday 24 May 2021
11.00am
Via MS Teams**

Present:

Dr Linda Bagrade (chair)	Consultant Microbiologist/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Sandra Devine	Acting Infection Control Manager
Janice Heggie	Acting Lead Nurse
Patricia Friel	Acting Chief Nurse
Dr Colin Peters	Neonatal Consultant
Pamela Joannidis	Acting Associate Nurse Director, IPC
Patricia Coyne	Facilities Manager
Kerr Clarkson	Site Manager Operational Estates
Annette Rankin	Nurse Consultant, ARHAI
Dr Anne Marie Heuchan	Consultant Neonatologist
Jamie Redfern	Director Woman & Children
Morag Liddell	Senior Charge Nurse
Professor Alistair Leanord	Acting Lead Infection Control Doctor
Dr Jonathan Coutts	Consultant
Melville MacMillan	Estates Manager
Melanie Hutton	Clinical Service Manager
Professor Angela Wallace	Interim Operational Director of Infection Prevention and Control
Dr Michael Weinbren	Consultant Microbiologist, NHS Scotland Assure

Apologies:

Dr Morag Campbell	Consultant Neonatologist
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		ACTION
1.	Introduction	
	Dr Bagrade welcomed everyone to the meeting. She said this is the fourth meeting to discuss a cluster of <i>Serratia marcescens</i> colonisation and GNBS in Neonatal Unit, RHC.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality. Dr Bagrade informed that this meeting is being recorded but will be deleted from MS Teams in 20 days or when minutes are accepted.	
3.	Minutes of Previous Meeting	
	The minutes of the meeting of 12 th May were agreed as an accurate record. The minutes of the meeting of 18 th May were agreed with the following amendment:- Page 1, Attendance list should read "Patricia Friel – Acting Chief Nurse". If there are any further comments regarding the minutes members are asked to let Dr Bagrade know.	

		ACTION
4.	Incident Update	
	<u>General Situation Update</u>	
	<p>Gillian Bowskill provided an update on the situation in NICU.</p> <p>There are 8 confirmed cases of <i>Serratia marcescens</i> infection/colonisation and one possible case.</p> <p>[REDACTED]</p> <p>[REDACTED] There have been no new cases since 15th May 2021.</p>	
	Patient Report	
	<p>Dr Heuchan reported that all the patients are not unwell with regards to <i>Serratia marcescens</i>.</p> <p>In addition to <i>S.marcescens</i> incident the IPCT is currently investigating <i>Staphylococcus capitis</i> colonisation cluster in NICU as well. [REDACTED]</p> <p>[REDACTED]</p> <p>Jamie Redfern asked if these two babies are part of the <i>Serratia marcescens</i> incident and was informed that one of the babies is. Annette Rankin asked if this is being treated as a separate issue and Dr Bagrade stated that the control measures that are in place for <i>Serratia marcescens</i> are the same for <i>S.capitis</i>. She said there is one case of the confirmed outbreak strain in the unit and the other babies have not been confirmed with the same strain and the situation will be assessed at a PAG. Annette Rankin recommended that this is assessed as PAG and suggested not to wait for typing results.</p>	
	Microbiology Report	
	<p>Last Wednesday Dr Bagrade reported environmental sampling was carried out in NICU concentrating on the rooms that were involved with the <i>Serratia marcescens</i> incident. Approximately 100 samples were taken concentrating on sinks, area around the sinks and the patient environment especially on frequently touched surfaces. She said they were only looking for gram negative bacteria and if there were any these would be identified. Any <i>Serratia marcescens</i> would be stored and typed later to see if there was any connection with the patient isolates.</p> <p>From the environmental sampling Dr Bagrade informed that they did not find any gram negative organisms in the sinks or close to the sinks apart from [REDACTED]. A shelf above the trough sink, next to the window, was found to have environmental <i>Pseudomonas</i> species there.</p> <p>Unfortunately Dr Bagrade reported that a few gram negatives were found in direct patient environment in the cots and around the cots. In [REDACTED] <i>E.coli</i> and <i>Serratia marcescens</i> was identified in cot space [REDACTED] <i>Klebsiella pneumonia</i> was found in cot space 5, trolley drawer (which is the trolley at the end of the cot space).</p>	

Also *Pantoea* was found in the trolley drawer in cot space [REDACTED]. It was noted that in [REDACTED] the direct patient environment was contaminated with bacteria but no other gram negatives were found in any other rooms.

Annette Rankin asked if the cot spaces were occupied or empty at the time of the sampling and Gillian Bowskill replied that some of the cots were empty but some were occupied. She explained that cot space [REDACTED] had the baby with *Serratia marcescens* in it and cot space [REDACTED] had a baby in it and *Klebsiella* was found in the drawer.

When the HPV clean is carried out Annette Rankin asked what the process is with regards to the cots if these are taken out during the clean. Morag Liddell confirmed that all of the equipment was taken out of the rooms and cleaned with Actichlor and then once all the wall washing, vents, drains and floors are completed all the equipment is put back in for the HPV clean. During the process dots are put on the equipment that has been cleaned and not on the ones that have not been cleaned.

With regards to the white trolleys that are left in the rooms Dr Peters asked what happens to them during the HPV clean and Morag Liddell confirmed they are cleaned as well as the beams. He also asked when the area is sprayed behind the handles would not necessarily be reached unless the vapour process was used as previously. Dr Heuchan commented that when the unit previously had a similar *Serratia marcescens* incident a few years ago the misting process eradicated the colonisation but this is not the case with the electrostatic spray despite several attempts. Morag Liddell also commented that we do not know if these have been re-contaminated since the HPV clean as no environmental swabbing was done at that stage.

When looking at the environmental trolleys Dr Coutts stated that he has just witnessed a theatre team arriving with several amounts of equipment to operate on a baby and asked if these items are being swabbed as well. He wondered if this equipment could be introducing these organisms. Dr Bagnade stated that this if the first time environmental swabbing was carried out for this incident and the process will continue.

Another issue D Bagnade said to mention that they identified a potential cluster of *S. capitis* in the unit. She said the environmental screening was not meant to identify this organism but it was found in [REDACTED] [REDACTED] in the trolley drawer, cot space 5 porthole and the shelf above the trough sink at the window in [REDACTED]. The results Dr Bagnade said need to be interpreted with caution as the method used was not designed to find *Staph capitis* and next time carrying out environmental screening it will include gram negative and gram positives. The results from the Reference Lab are not available as yet.

At the last meeting Dr Bagnade said there was an action for her to contact the Reference Lab to carry out whole genome sequencing of *Serratia marcescens* clusters. Professor Leanord said at the last *Serratia marcescens* incident the Lab sequenced the major isolates and identified a group of 12 isolates which were compact and these were clustered and related. He said they did not realise until the sequencing was done and found another 3 incidents of cross transmission in the unit by patient to patient and this was not identified until sequencing was done.

		ACTION
	<p>Professor Leanord confirmed that the Lab are happy to carry out the <i>Serratia marcescens</i> sequencing. Dr Weinbren commented that from the previous environmental <i>Serratia marcescens</i> isolates from the drains asked if these were typed at the same time as the patient isolates. Professor Leanord said at the time he thinks the environmental isolates for drains were not kept as the Lab protocol at the time was not to keep the environmental isolates but always kept significant clinical isolates in freezer as part of the standard operating procedure. He said he will check this from the previous incident. He said this was the first time sequencing was carried out and this showed multiple transmission events that were unapparent as there was no surrogate marker like antibiotic resistance etc.. At that time he said there were many transmission events throughout the unit. Dr Bagraade said that environmental sampling will continue as on ongoing programme.</p> <p>Morag Liddell asked for clarification if the drains were swabbed this time and Dr Bagraade confirmed that the sink and the drain hole on the sink and around the sink and most of the things that were within 2m of the sink were swabbed. However, if there is more evidence that drains are an issue this will be addressed.</p> <p>Estates have been asked to help with the water sampling for the unit and a report has been received from Kerr Clarkson clarifying the water supply to the unit. Water sampling will be carried out on Friday of the POU filters looking for TVC counts and gram negatives and depending on the results this programme may need to continue.</p>	A Leanord
	Other Relevant Reports	
	<p>As a request from ARHAI Kerr Clarkson is to provide a report on the schematics of the water supply and the number of sinks in the unit. Kerr Clarkson confirmed that this is complete and he has an A1 drawing available and will send this to Dr Bagraade and Gillian Bowskill</p> <p>A report on the drains was completed by Kerr Clarkson which was submitted following certain recommendations and comments on why some of the recommendations could not be carried out. He agreed to forward this report to Dr Bagraade to issue with the minutes. Dr Heuchan asked what actions could not be completed regarding the drains. Melville Macmillan said there was a recommendation to move the trap further along the pipe but he said this is against British Standards and should not move a trap away from the outlet of a wash hand basin as this could become infected and the trap is in place to stop anything from coming back up. Professor Wallace asked if IMT are content with regards to the drains and said it would be helpful to see the report.</p> <p>Once the results from the Labs are received regarding the POU filters Kerr Clarkson agreed to share these with IMT. If anything is identified the filter will be isolated and to send the manufacturer for audit purposes and a report will be issued regarding this.</p> <p>Kerr Clarkson is to provide a short summary via email on what testing regime is in place in the unit and if there are any abnormal results. He stated that testing is carried out for Legionella, TVCs and Pseudomonas and agreed to send the latest Neonatal report to Dr Bagraade and Gillian Bowskill.</p>	<p>K Clarkson</p> <p>K Clarkson</p> <p>K Clarkson</p>

With regards to the drains Dr Weinbren advised that on the hand wash station the risk of drain dispersal is genuinely low. Unless you start to get any obstruction of flow and said it would be helpful to assess the drains are draining properly so that the water is not rising up from the sinks. In assessed drains there tends to be no sieve in these and bits of equipment can go down the waste tract and the waste tract tends to be restricted in size. He said to ensure that no hands are going down into these. Kerr Clarkson stated that he has a video which shows the filtered water coming out of the sink outlet and Dr Bagrade asked if the video could be sent to the group as an attachment and Kerr Clarkson agreed to send this. He said the video shows the water in a deep sink and would require significant blockage in the drain for anything to come back up the way to create a splashback on to the filter. Jamie Redfern asked that all drains are checked, cleaned and sanitised and Kerr Clarkson will include this information in his report. Melville MacMillan confirmed that the drains were cleaned when the HPV was completed and new traps were installed.

K
Clarkson

In the 2015 outbreak Sandra Devine reported that the environment and water was sampled before the water was filtered and there were no positive isolates and this is part of the HPS review report.

At the next meeting Dr Bagrade proposed to have an agenda item to discuss the drains.

With regards to the HPV clean Dr Bagrade said at the last meeting the IMT discussed how to review how this is carried out e.g. staged process or at the one time and how to assure ourselves cleaning is in place. She said this will be an ongoing action and an update will be provided at the next meeting.

Enhanced supervision was carried out in the unit on Friday and Gillian Bowskill reported that there was a huge improvement in relation to cleanliness. She provided the following update:-

- A couple of domestic issues were noted with dust over the overbed lamp and on top of the cupboard in the milk express room. With regards to the nursing environment [REDACTED] to maintain the temperature in the fridge. Gillian Bowskill said the fridge in [REDACTED] is used for staff and parents drinks and this will be discussed out with this meeting.
- Minor estate issues were identified with the shelving above the trough sink which is breached. In [REDACTED] part of the flooring ceiling strip was lifting slightly. [REDACTED] flooring to be looked at as it is broken behind the door. One of the lights in the milk expression room needs fixed and the walls had a couple of holes in them.
- Equipment issues noted were in [REDACTED] bed 6 clean cot space the protective goggles were not clean and available for use and a couple of parts of monitor screens were not clean and maybe not dried appropriately after cleaning.
- Hand hygiene audit for the unit scored 100% for opportunities taken and combined compliance was 90%. One failure was a trained nurse after exposure to body fluids and it was dry soap rub used and another was a domestic with a dry soap rub after patient surroundings contact.

The Domestic Service Manager confirmed that all issues were addressed and rectified and an Action Plan was completed. Domestic staff were given extra training regarding the dust on top of the lamp.

		ACTION
	<p>In relation to the use of water wipes or tap water for babies Janice Heggie said that Procurement have confirmed they have a new supplier for the wipes. In the interim the unit have submitted emergency indents for single patient use and they are hoping to guarantee what the unit requires on a weekly basis. All babies have their own pack (baby wipes) in their locker. If these are not available the unit uses foil bowls which are disposable and single use only. The tap water is put in the foil bowl and the bowl is put into a double orange bag when finished. The bowls are not kept as they have a ribbed edge and not able to be cleaned properly.</p> <p>Annette Rankin said the issue when using tap water was regarding the process of using the bowl to take in the tap water. Dr Bagrade said the issue of sterile water was coming in 5m plastic bottles. After the meeting last week Morag Liddell noticed that the small bottles were issued to babies to drink from and come in the same package as the formula milk.</p> <p>Dr Peters said if we stop using baby wipes and if there is an increase in infections this might be in part due to not using baby wipes. Janice Heggie commented that this will cause concern to parents if not to use tap water. Jamie Redfern said Kerr Clarkson stated that in the report he has the tap water is safe. Kerr Clarkson confirmed that all taps produce 0.2 microns of filtration and no issues have been identified with filters.</p> <p>When had previous gram negative incidents in other areas Gillian Bowskill said they did not revert to sterile water to wash children then. Professor Leanord pointed out that the POU filters have sterile water coming out of these and if see filter failure this is discussed with Estates. He said you can get a retrograde contamination of the filter and the filter could be contaminated by something different e.g. hands.</p> <p>In summary the IMT agreed that if the process is followed and avoid touching the sink with the bowl the tap water can be used for babies for hygiene and if any concern sterile water can be used if required.</p> <p>A meeting was held last Friday with Dr Bagrade, Dr Peters and Dr Heuchan to look at possible early warning systems and review of screening protocols in the unit. An update will be provided in due course.</p> <p>The unit is still being supported by IPC with education and toolbox talks.</p>	
<p>5.</p>	<p>Hypothesis</p>	
	<p>Dr Bagrade said the hypothesis is an unidentified source in the unit and possible environment to patient or patient to patient transmission.</p>	
<p>6.</p>	<p>Risk Management & Control Measures</p>	
	<p>Discussed earlier.</p>	

		ACTION
7.	Further Investigations Required	
	<ul style="list-style-type: none"> - To have a separate agenda item to discuss drains. - Work on HPV cleaning protocol will be started whenever this is possible in the unit and IPC and Estates will provide support. The aim is to look at the process if this is carried out in a staged process or completed all at once. ARHAI are to complete a literature review on HPV cleaning but is not complete as yet. Sandra Devine to check if any other boards have completed this. - Enhanced supervision is progressing. - Early warning systems and screening in the unit is work in progress. - If there are no wipes available and procedure is followed tap water can be used but sterile water can be used for washing babies if required. - Patient Information leaflet on <i>S.marcescens</i> colonisation will be used in the unit. 	
8.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as AMBER.</p> <p>Severity of illness – MODERATE Impact on Services – MODERATE Risk of Transmission – MODERATE Public Anxiety – MODERATE</p>	
9.	Communications	
	Advice to Public, Patients and Families	
	Previously a leaflet was prepared to give parental information regarding the background on screening in the unit. Dr Heuchan reported that this was used last week with parents and she was not sure further copies should be printed and asked Pamela Joannidis for advice. Pamela Joannidis agreed that this leaflet can be used in the unit.	
	Duty of Candour	
	Nil to update.	
	Advice to Professionals	
	Clinicians to update their colleagues.	
	Media	
	A holding press statement is prepared and Sandra Devine agreed to follow this up.	S Devine
	ARHAI/Scottish Government HAI Policy Unit	
	IPC will complete the online reporting tool to inform ARHAI. Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	IPC A Rankin

		ACTION
10.	AOCB	
	Nil to update.	
11.	Action list with timescale and allocated responsibility	
	All actions will be followed up.	
12.	Date & Time of next meeting	
	It was agreed to have a further meeting on Wednesday 2 nd June at 11.00am.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
24/05/21	Environmental sampling programme in NICU to continue	IPCT	Next round to be carried out this week
24/05/21	Report on works carried out on drains after the last incident to be sent discussed and sent out to the group	K Clarkson	
24/05/21	Water sampling through POU filters for TVC and GNB to be carried out	K Clarkson	Samples collected on 21/05 received in the lab and in progress
24/05/21	Early warning system implementation in the unit will be explored and screening programme for NICU patients will be optimised	L Bagraade	Meeting with clinicians was arranged and process is in progress
24/05/21	Professor Leanord to check if the Lab kept the environmental isolates for drains from the last incident.	Prof A Leanord	
24/05/21	Kerr Clarkson has a video which shows the filtered water coming out of the sink outlet and agreed to send the video to IMT as an attachment.	K Clarkson	Complete
24/05/21	As a request from ARHAI Kerr Clarkson to provide a report on the schematics of the water supply and the number of sinks in the unit. Kerr Clarkson confirmed that this is complete and he has an A1 drawing available and will send this to Dr Bagraade and Gillian Bowskill.	K Clarkson	Complete
18/0521	HPV cleaning process will be reviewed and agreed	IPCT/ward management	This will be an ongoing action and an update will be provided at the next meeting.
18/05/21	Enhanced supervision walkrounds will be initiated	IPCT/ward management	Enhanced supervision was carried out in the unit on Friday 21 st May and Gillian Bowskill provided an update at the meeting on 24 th May.
18/05/21	Dr Heuchan commented that looking at the unit today the footfall is still too high. Medical students have been brought in by other departments to the unit and she suggested to speak to the undergraduate team to say the	Dr Heuchan / Dr Campbell	Communication has been sent by Dr Campbell to visiting specialities to the unit in relation to hand hygiene.

	<p>unit cannot accommodate students at this time. Information to visiting teams needs to be issued highlighting the need for compliance with SIPC/HH and reducing number of visiting specialists if possible.</p>		
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18/05/21	Janice Heggie said after the meeting she will check with Procurement what stock is available for the water wipes used for washing babies. Jamie Redfern agreed that he can escalate this to the Head of Procurement as an action from this IMT.	J Heggie / J Redfern	Procurement have confirmed they have a new supplier for the wipes. In the interim the unit have submitted emergency indents for single patient use and they are hoping to guarantee what the unit requires on a weekly basis. All babies have their own pack (baby wipes) in their locker. If these are not available the unit uses foil bowls which are disposable and single use only. The tap water is put in the foil bowl and the bowl is put into a double orange bag when finished. The bowls are not kept as they have a ribbed edge and not able to be cleaned properly.
18/05/21	Kerr Clarkson to provide a summary of how the water is supplied to the unit and what the testing regime is and what are the latest results.	K Clarkson	Update 24/05/21 - Kerr Clarkson is to provide a short summary via email on what testing regime is in place in the unit and if there are any abnormal results. He stated that testing is carried out for Legionella, TVCs and Pseudomonas and agreed to send the latest Neonatal report to Dr Bagrade and Gillian Bowskill.
18/05/21	Kerr Clarkson reported that work was carried out on the drains and from a previous incident advice was given to change the bottle traps. He said he has a paper in relation to this and will issue this to IMT.	K Clarkson	Update 24/05/21 - Kerr Clarkson agreed to forward this report to Dr Bagrade to issue with the minutes.
12/05/21	Gillian Bowskill to speak to the Hand Hygiene Co-ordinator to see if there is any literature available to support the unit and any novel ways to improve compliance with hand hygiene.	G Bowskill	Gillian Bowskill said the Hand Hygiene Co-ordinator is in discussion with Gosure who previously provided SureWash for the unit. There is also the possibility of a Surewash app that could be used whereby the staff could simulate washing their hands above a tablet to check their hand hygiene technique.
12/05/21	Karen Clinton to forward a copy of the teaching pack regarding bowel washouts to Gillian Bowskill.	K Clinton	Complete
12/05/21	Hugh Brown to send Dr Bagrade the verification of ventilation that was carried out in the unit.	H Brown	

12/05/21	The unit to look at usual routine practice for all procedures involving gut microflora.	Clinicians/ Nursing team	Morag Liddell said there is a protocol for all these things and wear gloves and aprons as they involve body fluids.
12/05/21	Dr Peters commented that sometimes the security staff do not ask for an ID badge and Pat Coyne agreed to raise this with their manager.	P Coyne	
12/05/21	Clinicians to assess if any Duty of Candour process is required.	Clinicians	Discussed at every meeting.
12/05/21	Sandra Devine to contact communications to ask if a press statement is required.	S Devine	Sandra Devine contacted communications.
12/05/21	IPC will complete the online reporting tool to inform ARHAI.	IPC	IPC completed the online reporting tool.
12/05/21	Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	A Rankin	Annette Rankin informed the Policy Unit.
30/04/21	Environmental swabbing will be carried out if deep clean/HPV cannot be carried out. If not this will be carried out post HPV.	G Bowskill	HPV completed 05.05.21. Environmental swabbing not carried out. Agreed to postpone this and should be carried out next week.
30/04/21	Pharmacy to be requested to carry out an antibiotic review between January – April 2021.	Dr Heuchan/ Pharmacy	Dr Heuchan waiting on update from Pharmacy.
30/04/21	Peer SICPs audits x2 to be carried out.	P Joannidis/ J Heggie	Scheduled 13 th & 24 th May
30/04/21	Collaborative working to be arranged between the Clinical team, ARHAI and IPCT on the most appropriate use of Data	Clinicians/ARH AI/IPCT	ICDs and nursing team met yesterday in clarifying how this process can be taken forward. Dr Bagnade to discuss with clinicians before having a meeting with ARHAI. IPC Data Team to provide support in relation to any data being developed.
30/04/21	Review of screening protocols in the unit.	NICU working group	The screening protocols will be discussed with ARHAI.

30/04/21	Parents of last case to be informed of isolate.	Clinicians	<p>With regards to Duty of Candour Dr Peters reported that parents were explained of transmission based precautions and given information separately if cohorting of patient to be carried out.</p> <p>Lynnette Cameron is assisting IPC with Duty of Candour on the agenda for IMTs.</p>
30/04/21	Timeline of cases	G Bowskill	Timeline commenced 26.04.21 and is updated as required and will send to IMT members.

**Incident Management Team
Serratia Colonisation in NICU, RHC
Wednesday 2 June 2021
11.00am
Via MS Teams**

Present:

Dr Linda Bagnade (Chair)	Consultant Microbiologist/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Jamie Redfern	Director Woman & Children
Professor Angela Wallace	Interim Operational Director of Infection Prevention and Control
Patricia Friel	Acting Chief Nurse
Dr Anne Marie Heuchan	Consultant Neonatologist
Dr Morag Campbell	Consultant Neonatologist
Kerr Clarkson	Site Manager Operational Estates
Susie Dodd	Nurse Consultant, ARHAI
Patricia Coyne	Facilities Manager
Professor Alistair Leanord	Acting Lead Infection Control Doctor
Janice Heggie	Acting Lead Nurse
Melville MacMillan	Estates Manager
Dr Michael Weinbren	Consultant Microbiologist, NHS Scotland Assure
Sharon McMonagle	SCN, Neonatal Unit
Pamela Joannidis	Acting Associate Nurse Director, IPC
Dr Colin Peters	Neonatal Consultant

Present:

Sandra Devine	Acting Infection Control Manager
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		ACTION
1.	Introduction	
	Dr Bagnade welcomed everyone to the meeting. She said this is the fifth meeting to discuss a cluster of <i>Serratia marcescens</i> colonisation and GNBS in Neonatal Unit, RHC.	
2.	Reminder of Confidentiality	
	The group were reminded of the need for patient confidentiality. Dr Bagnade informed that this meeting is being recorded but will be deleted from MS Teams in 20 days or when minutes are accepted.	
3.	Minutes of Previous Meeting	
	The minutes of the meeting of 24th May were agreed as an accurate record. If there are any further comments regarding the minutes members are asked to let Dr Bagnade know.	

		ACTION
	<p><u>Actions From Previous Meeting</u></p> <p>Actions from the previous meeting were updated at the meeting and reported in the Action Plan below.</p>	
4.	Incident Update	
	<u>General Situation Update</u>	
	<p>Gillian Bowskill provided an update on the situation in NICU.</p> <p>There are 8 confirmed cases of <i>Serratia marcescens</i> infection/colonisation and one possible case and there have been no new cases since 15th May 2021.</p> <p>Typing results have been received for the majority of the cases. In total 8 isolates were sent and 3 are the same type with another cluster of 2 that are the same, 1 that is different, 1 is unique and 1 is outstanding. The possible case was a [REDACTED] and this case has not been typed so no results will be available for this case.</p> <p>Currently in the unit there are 3 babies and all are in [REDACTED], although this morning this room is being vacated to allow works to be carried out in this room.</p>	
	Patient Report	
	With regards to the babies Dr Peters reported that there are no major concerns regarding the babies that have <i>Serratia marcescens</i> .	
	Microbiology Report	
	<p>Dr Bagnade reported that water sampling is being finalised and from the initial results there is only one outlet that may have a problem. The SOP used for Ward 6A will be same the arrangement to look at this filter.</p> <p>A second round of environmental sampling has taken place concentrating on sinks, area around the sinks and the patient cots. Dr Bagnade confirmed that trolleys from theatres have also been included in the sampling. She advised that environmental sampling will continue for a couple more weeks to be content that the situation is stable. Dr Campbell suggested to look at the computer screens at the bedside and Gillian Bowskill will include this in the next round of sampling.</p>	G Bowskill
	Other Relevant Reports	
	<p>A peer review SICPs audit was carried out by the unit. Janice Heggie reported that the unit have been carrying these out every week.</p> <p>The first audit had a score of 86% and the one completed last Wednesday scored 90%. Issues highlighted included unclean equipment at the patient bedside that was in use. Two issues identified included an upright fridge freezer and the fridge part was broken. A stand alone new fridge was purchased and the other one disposed of. From the enhanced supervision on Friday a room where transport incubators are stored was identified as an issue. The room is cluttered and equipment can be dusty there.</p>	

		ACTION
	<p>The Clinical Service Manager is to look at storage solutions as there is a large volume of equipment.</p> <p>Infection Control are providing staff training and rolling out the staff toolbox talks with sessions scheduled for tomorrow. There is also training of other staff for them to be trainers. Dr Bagrade asked if there are other areas available for storage and Janice Heggie advised that there may be areas in Maternity that are not in use and these areas could may be explored. Janice Heggie agreed to look into this. With regards to the issue of storage Dr Campbell said equipment needs to be easily accessible to the unit at very short notice and she also said to note the unit is also very busy.</p> <p>In relation to the cleaning and additional resource available at the moment and given the acuity, turnover and complexity of the service Dr Campbell wondered if the unit can continue with the cleaning resource they have for the unit to maintain the level of cleanliness required. Pat Coyne confirmed that the same domestic is in the area all the time and they have increased the cleaning in the unit with additional resources available with the same staff to clean the area. Professor Wallace recommended that the unit has the appropriate amount of cleaning in place which is in line with other areas in the south site but recognises the high acuity of the unit. In relation to storage Professor Wallace stated that some nurses in her hospital may gather equipment and maybe the equipment could be streamlined in GGC. She said when there is high acuity she said nursing staff may feel they do not have time to clean some of the equipment within their remit and suggested that this is looked at also.</p> <p>With the increase in staffing to keep the unit clean Gillian Bowskill said the enhanced supervision is not highlighting any domestic issues at the moment and she does not feel extra domestic staff are required. She thinks it is more related to equipment needing to be cleaned and to maybe have extra housekeepers or healthcare assistants to assist. Jamie Redfern and clinicians to look at this and to see what is available in the unit.</p> <p>Patricia Friel commented that the unit does have 4 full time equivalent housekeepers and 8½ Band 2 staff and feel they do have a good establishment of staff to undertake the tasks required. She confirmed that a meeting is ongoing at the moment and one of the SCNs is running this to go through the schedule of tasks. In relation to absence within these groups e.g. annual leave or sick leave she feels this is not being covered. She suggested to look at the daily cleaning schedules and what the unit is actually tasking the staff to do so that all areas are covered and there is a good process of bringing equipment out to be cleaned and how to store these in the rooms. As there is a lot of storage required for equipment she said some of the pumps are not in use but can be positioned by patient's bed space and this means the clinical nurse at the bedside needs to clean the pumps that are not required for those patients. She said that she is happy to review and increase the non registered workforce as required to meet the demands of the service.</p> <p>On a number of occasions Jamie Redfern reported that only yesterday GGC was the only provider of service in the West of Scotland that had Neonatal Units opened. Also GGC and Aberdeen were the only surgical units that were opened externally for business. On the basis of the national Neonatal Service he feels they are under extreme pressure and this has been reported to the Chief Executive. Dr Campbell agreed with this and reported that they receive very complex and local high risk babies to the unit.</p>	<p>J Heggie</p> <p>J Redfern</p>

	ACTION
<p><u>Enhanced Supervision Walk round Reports</u></p> <p>The peer audit was completed on Wednesday. Gillian Bowskill reported that the enhanced supervision was carried out on Friday and numerous bits of equipment were found to be not clean. Various issues noted included storage areas, patient equipment, mattresses, and syringe pumps not clean and there was dust and sticky residue on equipment. The use of 500ml saline bags being used for multiple flushes were lying on window ledges and on top of line trolleys. The milk fridge and breast milk warmers were not clean and staff bottles of juice were in shared fridges with relatives items.</p> <p>Two audits are taking place a week and Gillian Bowskill said she is concerned regarding the level of cleaning in the unit. She discussed this with Dr Bagrade and they are looking to change from enhanced supervision and revert back to weekly SICPs audit which will produce a score and action plan.</p> <p>When the enhanced supervision was taking place in other units this identified Estates and Domestic issues in the unit but Gillian Bowskill said most of what they are finding in NICU are more SICPs related in relation to practice and cleanliness of equipment. She said if an audit is carried out this will be on the Synbiotix system which generates a score and an action plan will be issued and the unit can see general improvement. Dr Campbell agreed that an audit would be helpful to capture what is going on in the unit but she would like to emphasise how short staff the unit has been recently and the acuity in the unit. Patricia Friel agreed she is happy to support the SICPs audit going forward.</p> <p>Dr Heuchan stated that the huge challenge is the 6 bed bay unit which has extremely complex patients which would not be replicated in e.g. PICU and the staffing numbers would be higher for similar acuity mix. With regards to ancillary staff the numbers are higher in other units and clinicians in NICU have to set up their own trolleys. Pamela Joannidis proposed that Infection Control and Janice Heggie work together to do the SICPs audit and to look at any areas that need more focused improvement work and to work with clinical team to identify clinical issues. This will include one SICPs audit per week which will identify the issues that have been highlighted in this discussion.</p> <p>Yesterday, Sharon McMonagle commented that the unit had 16 ITU patients and the unit has been running as red for a few weeks now. This has been highlighted at the huddle and help is offered but some of the staff cannot assist with these type of patients as these patients are very sick premature babies. Staff can also not be swapped with level 2 staff as they are also short staffed. She also pointed out that storage is an issue in NICU and equipment needs to be accessed very quickly in terms of transport incubators and theatre transport trolley and pumps need to be accessible. The staff are under an increasing amount of pressure and are very stressed at the moment.</p> <p>Jamie Redfern agreed to provide a summary of what the safety huddles have been in relation to nursing staff. He stated that if staff are transferred to the unit maybe they can assist to clean some of the equipment.</p>	<p>Inf Control J Heggie</p> <p>J Redfern</p>

		ACTION
	<p><u>Report from Hand Hygiene Co-ordinator</u></p> <p>The hand hygiene for the last audit in the unit was 95% overall. 1 student nurse did not carry out hand hygiene technique for the appropriate amount of time.</p> <p>Gillian Bowskill said previously the unit had the Surewash machine in which went down very well with staff. The same company have an app that can be put on a tablet or phone and this can be downloaded for staff to practice their hand hygiene technique and will record how well this is. Dr Campbell said she will try and get this on tablets for staff.</p> <p>With regards to the audio suggestion which Dr Peters mentioned at the previous meeting this will be explored further.</p>	<p>Dr Campbell</p>
	<p><u>Drains</u></p> <p>A report was received from Melville MacMillan regarding the drains.</p> <p>This was written in response to an email on what has been completed since the last incident in the unit.</p> <p>The jobs included:-</p> <ul style="list-style-type: none"> - All taps were replaced with Markwik thermostatic mixing taps. - Replaced all IPS panels and relined internal IPS panelling with wet wall and sealed completely. - Install 42mm drain valve which would be used to flood the trough sinks for cleaning. A couple of sinks could not be done for various reasons which included replacement of bottle traps with a S trap due to a concern regarding the trap seal. Bottle traps are still in place. - Request to move S traps away from sink was not completed as this would be a breach of building regulations. - Instalment of heat sanitising drain but this was not available at the time of the work being done in the unit. If this is necessary this can be taken to the Water Technical Group meeting for approval but Melville MacMillan said this should not be done. Michael Weinbren commented that if there is sufficient heat this can disinfect the drain and some companies have used these with or without success. Kerr Clarkson said to heat the drain pipe you would not want to heat it beyond the water trap. This would need to be a heat of greater than 60 celcius and kept constantly at 60 celcius or this would create an incubation area particularly for bacteria that thrives on between 20 and 40 celcius. Also the part of the installation was to introduce the ability for Facilities to fill the drain with Hysan with a short dose instead of pouring this down which can be done as part of the process. Susie Dodd asked about the option of glass traps and if they are successful and Dr Bagrade said this would be more visual. Kerr Clarkson reported that the thought was to put in a glass S trap in which case you cannot attach this to the drain itself as it would be too large. <p>It was noted from an Estates point of view all actions have been completed and the ones that have not been done completed there are reasons for these.</p> <p>Kerr Clarkson reported during the HPV cleaning process which was completed recently Mel MacMillan arranged for all the bottle traps to be changed to new ones.</p>	

		ACTION
	<p>He said water supply to the unit is not chlorinated but there are at least three stages of filtration. Dr Bagrade informed that there are two filters on entry and there are POU filters also. There are Pall filters on all outlets and drains are sanitised weekly. IPCT will continue with environmental sampling also concentrating on sinks and area around sinks. It was noted no issues have been identified with water sampling results.</p>	
	<p><u>Video</u></p> <p>A video was shown of the filtered water coming out of the sink outlet.</p> <p>Dr Bagrade reported that the drain hole in the sink is far away from the tap and the water runs down the sink to the drain. The possibility of contamination from the drain hole up to the tap or to the sink is quite small. She said this is encouraging to think this is quite an unlikely event unless there is evidence that biofilm is coming out of the drains but the sink around the drains were swabbed and no gram negatives were found in any of the areas that were swabbed. Dr Peters asked if a hand was put under the tap water would the situation change. Dr Bagrade said if you put a hand under the tap water it might not necessarily cause a lot of turbulence on the drain hole. Kerr Clarkson added that the tap and the filter is above the line of the sink and is fully compliant with RAS. He said there is the opportunity if hands are put too close to the filter this could cause splashback on to the filters. When out of specs results on filters are received in other wards e.g. Ward 6A and PICU it is from retrograde contamination on to the filter and this can be happening during hand wash.</p> <p>All the actions that have been put in place in the unit have shown some positive progress as there has not been a positive case for 18 days. Dr Bagrade would like to thank ward staff for making this happen especially with the unit being so busy. She said they have not swabbed the drains but swabbed the sinks and not found any gram negatives. Water is filtered and no major issue with water coming out of the filter. Environmental sampling will continue.</p> <p>Michael Weinbren stated that in relation to the drains it is good that the maintenance of the hand wash station and the drain at the rear is in place providing there is not too much sealant in the drain and those are very effective at stopping dispersal of organisms coming back from drains. As soon as there is any impairment of drainage this is where they become a risk. He said changing the drain trap may have had an impact. An area to consider is an over provision of water services on the unit and the primary method for hand disinfection should be alcohol gel.</p> <p>In terms of filters having contaminated water Michael Weinbren reported that Pall filters are a good make of filter and it is highly unlikely to be filter failure and could be pseudo failure due to retrograde contamination. Dr Bagrade confirmed the outlet in question had only one colony present. Kerr Clarkson said he does not have a note of this and Dr Bagrade to check this.</p>	
<p>5.</p>	<p>Hypothesis</p>	
	<p>Dr Bagrade said the hypothesis is an unidentified source of <i>S.marcescens</i> in the unit and possible patient to patient transmission via staff hands or equipment.</p>	

		ACTION
6.	Further Investigations Required	
	<ul style="list-style-type: none"> - Jamie Redfern and his team to look at extra staff for the unit and providing more housekeeping staff. - Janice Heggie to look at storage solutions in the unit. - Instead of enhanced walk rounds to do SICPs audits weekly. - Enhanced cleaning remains in place and will explore to keep this ongoing - HPV cleaning and process will be reviewed. - Hand Hygiene audit will be completed weekly and to encourage staff to use the app. - To look at audio message to encourage staff to wash hands when entering the unit. - Environmental sampling completed today and will be carried out again. 	
7.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as <u>AMBER</u>.</p> <p>Severity of illness – MINOR</p> <p>Impact on Services – MODERATE</p> <p>Risk of Transmission – MODERATE</p> <p>Public Anxiety – MODERATE</p>	
8.	Communications	
	Advice to Public, Patients and Families	
	Nil to update.	
	Duty of Candour	
	Nil to update.	
	Advice to Professionals	
	Nil to update.	
	Media	
	A holding press statement is in place.	
	ARHAI/Scottish Government HAI Policy Unit	
	IPC will complete the online reporting tool to inform ARHAI. Susie Dodd will inform the Policy Unit that the HIIAT is Amber.	IPC S Dodd
9.	AOCB	
	Professor Wallace congratulated Dr Bagrade on her new appointment as Lead Infection Control Doctor for the board.	

		ACTION
10.	Action list with timescale and allocated responsibility	
	All actions will be followed up.	
12.	Date & Time of next meeting	
	It was agreed to have a one further meeting to finalise all actions. The date of the next meeting was agreed as Thursday 10 th June at 2.00pm.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
02/06/21	Gillian Bowskill to include the top of the computer screens at the bedside in the next round of sampling.	G Bowskill	Complete
02/06/21	Janice Heggie to explore other areas available for storage	J Heggie	<p>Ongoing</p> <p>Review of equipment and sundries in progress.</p> <p>Review of ward stock levels with the ward product manager, stores and procurement - complete</p> <p>Scoping exercise undertaken by Capital planning in 2019, remains on capital list for progress.</p>
02/06/21	Jamie Redfern and clinicians to look at what staff is available in the unit with regards to the cleaning of equipment.	J Redfern/ Clinicians	<p>The unit workforce establishment is based on BAPM guidelines at 100% occupancy with a 85:15 split of registered to non-registered staff.</p> <p>The total non-registered workforce is 24.16wte.</p> <p>Band 3/4 workforce of 11.6wte provide patient facing care and contribute to cleaning and housekeeping duties as required.</p> <p>The band 2 funded establishment of 13.18wte is utilised for non-patient facing duties.</p> <p>This includes 4wte employed as Housekeepers which allows for 2 per day on shift across 7 days.</p> <p>Bank, excess and overtime are available to cover shortfalls covered by absence, vacancy or peaks in activity.</p>

02/06/21	Infection Control and Janice Heggie to work together to do the SICPs audit and to look at any areas that need more focused improvement work and to work with clinical team to identify clinical issues.	Infection Control/ J Heggie	Ongoing
02/06/21	Jamie Redfern agreed to provide a summary of what the safety huddles have been in relation to nursing staff.	J Redfern	Complete
24/05/21	Environmental sampling programme in NICU to continue	IPCT	This is continuing to be carried out.
24/05/21	Report on works carried out on drains after the last incident to be sent discussed and sent out to the group.	K Clarkson	Dr Bgrade has received the reports.
24/05/21	Water sampling through POU filters for TVC and GNB to be carried out	K Clarkson	Samples collected on 21/05 received in the lab and have been finalised. One outlet may have a TVC environmental organism but this has to be confirmed. Estates to confirm what appropriate action is going forward.

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24/05/21	Professor Leanord to check if the Lab kept the environmental isolates for drains from the last incident.	Prof A Leanord	In progress.
24/05/21	Kerr Clarkson has a video which shows the filtered water coming out of the sink outlet and agreed to send the video to IMT as an attachment.	K Clarkson	Complete. This was shown at the meeting of 02/06/21
24/05/21	As a request from ARHAI Kerr Clarkson to provide a report on the schematics of the water supply and the number of sinks in the unit. Kerr Clarkson confirmed that this is complete and he has an A1 drawing available and will send this to Dr Bagraade and Gillian Bowskill.	K Clarkson	Complete. Drawing to be sent to ARHAI.
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	reducing number of visiting specialists if possible.		
18/05/21	Janice Heggie said after the meeting she will check with Procurement what stock is available for the water wipes used for washing babies. Jamie Redfern agreed that he can escalate this to the Head of Procurement as an action from this IMT.	J Heggie / J Redfern	Procurement have confirmed they have a new supplier for the wipes. In the interim the unit have submitted emergency indents for single patient use and they are hoping to guarantee what the unit requires on a weekly basis. All babies have their own pack (baby wipes) in their locker. If these are not available the unit uses foil bowls which are disposable and single use only. The tap water is put in the foil bowl and the bowl is put into a double orange bag when finished. The bowls are not kept as they have a ribbed edge and not able to be cleaned properly.
18/05/21	Kerr Clarkson to provide a summary of how the water is supplied to the unit and what the testing regime is and what are the latest results.	K Clarkson	Update 24/05/21 - Kerr Clarkson is to provide a short summary via email on what testing regime is in place in the unit and if there are any abnormal results. He stated that testing is carried out for Legionella, TVCs and Pseudomonas and agreed to send the latest Neonatal report to Dr Bagrade and Gillian Bowskill.
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12/05/21	Karen Clinton to forward a copy of the teaching pack regarding bowel washouts to Gillian Bowskill.	K Clinton	Complete

12/05/21	Hugh Brown to send Dr Bagrade the verification of ventilation that was carried out in the unit.	H Brown	Complete
12/05/21	The unit to look at usual routine practice for all procedures involving gut microflora.	Clinicians/ Nursing team	Morag Liddell said there is a protocol for all these things and wear gloves and aprons as they involve body fluids.
12/05/21	Dr Peters commented that sometimes the security staff do not ask for an ID badge and Pat Coyne agreed to raise this with their manager.	P Coyne	Complete
12/05/21	Clinicians to assess if any Duty of Candour process is required.	Clinicians	Discussed at every meeting.
12/05/21	Sandra Devine to contact communications to ask if a press statement is required.	S Devine	Sandra Devine contacted communications.
12/05/21	IPC will complete the online reporting tool to inform ARHAI.	IPC	IPC completed the online reporting tool.
12/05/21	Annette Rankin will inform the Policy Unit that the HIIAT is Amber.	A Rankin	Annette Rankin informed the Policy Unit.
30/04/21	Environmental swabbing will be carried out if deep clean/HPV cannot be carried out. If not this will be carried out post HPV.	G Bowskill	HPV completed 05.05.21. Environmental swabbing not carried out. Agreed to postpone this and should be carried out next week.
30/04/21	Pharmacy to be requested to carry out an antibiotic review between January – April 2021.	Dr Heuchan/ Pharmacy	Dr Heuchan waiting on update from Pharmacy.
30/04/21	Peer SICPs audits x2 to be carried out.	P Joannidis/ J Heggie	Scheduled 13 th & 24 th May.

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30/04/21	Review of screening protocols in the unit.	NICU working group	The screening protocols will be discussed with ARHAI.
30/04/21	Parents of last case to be informed of isolate.	Clinicians	With regards to Duty of Candour Dr Peters reported that parents were explained of transmission based precautions and given information separately if co-horting of patient to be carried out. Lynnette Cameron is assisting IPC with Duty of Candour on the agenda for IMTs.
30/04/21	Timeline of cases	G Bowskill	Timeline commenced 26.04.21 and is updated as required and will send to IMT members.

Incident Management Team
Serratia Colonisation & Gram Negative Bacteraemia
In NICU, RHC
Thursday 10th June 2021 @ 14:00
Via MS Teams

Present:

Dr Linda Bagnade (Chair)	Consultant Microbiologist/Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Angela Johnson	Senior IPC Nurse, South Paediatrics
Pamela Joannidis	Acting Associate Nurse Director, IPC
Sandra Devine	Acting Infection Prevention & Control Manager
Melanie Hutton	Clinical Service Manager, Paediatrics & Neonates
Professor Angela Wallace	Interim Operational Director of Infection Prevention and Control
Kerr Clarkson	Site Manager Operational Estates
Janice Heggie	Acting Lead Nurse, Neonatology
Patricia Friel	Acting Chief Nurse for Paediatrics & Neonatology
Anna Munro	Senior Nurse, ARHAI
Dr Michael Weinbren	Consultant Microbiologist, NHS Scotland Assure
Dr Morag Campbell	Clinical Director Neonatology
Annette Rankin	Nurse Consultant, ARHAI
Natalia Hedo	IPC Business Manager
Morag Liddell	Senior Charge Nurse, Neonatal Unit, QEUH

1.	Introduction & Reminder of Confidentiality	ACTION
	<p>Dr Bagnade welcomed everyone to the meeting. This is the sixth meeting to discuss a cluster of <i>Serratia marcescens</i> colonisation and Gram Negative Bacteraemia in Neonatal Unit, RHC.</p> <p>The group were reminded of the need for patient confidentiality. Dr Bagnade informed that this meeting is being recorded but will be deleted from MS Teams in 20 days or when minutes are accepted.</p> <p>Minutes were typed up from recording by Calum MacLeod, IPC Administrator.</p>	
2.	Minutes & Actions of Previous Meeting	
	<p>The minutes of the meeting of 2nd June 2021 May were agreed with no amendments requested. As the group have only received the minutes recently, if anyone has any comments/amendments members are asked to contact Dr Bagnade.</p> <p>The actions on the action log will be covered on the agenda items. Dr Bagnade requested can we could draw a line regarding the <i>Serratia marcescens</i> incident but keep going with the actions that have been agreed and see how we monitor the progress of the actions.</p>	

2.	Incident Update	ACTION
	<p>General Situation Update</p> <p>Gillian Bowskill provided an update on the situation in NICU.</p> <p>There are 8 confirmed cases of <i>Serratia marcescens</i> infection/colonisation and one possible case and there have been no new cases since 15th May 2021.</p> <p>Currently in NICU there are 3 babies with <i>Serratia marcescens</i> all cohorted in [REDACTED]. All patients are reported to be stable with no clinical concern regarding the patients.</p> <p>Microbiology Report</p> <p>Results from the 2nd round of environmental screening carried out last Wednesday have returned with some gram negatives and <i>Staphylococcus capitis</i> isolated in the following areas:-</p> <ul style="list-style-type: none"> <li>• [REDACTED] [REDACTED] porthole <i>Serratia marcescens</i> and <i>Staphylococcus capitis</i> was isolated. <li>• [REDACTED] <i>Acinetobacter lwoffii</i> which is a gram negative was isolated from samples from shelf above sink in [REDACTED], [REDACTED] trolley drawer and [REDACTED] trolley drawer. <p>Positive samples from <i>previous</i> screening within NICU cots and drawers were common areas.</p> <p>We are not expecting an absolute sterile environment but since [REDACTED] is colonised with same bug we need to look at appropriate cleaning and concentrate on frequently touched surfaces that may not be that obvious to clean like the cot drawer handles.</p> <p>Out of the 70 samples taken 5 returned positive from the port holes and drawer handles. All 70 samples taken were concentrated on rooms where positive patients had been identified.</p> <p>All samples from the sinks and surrounding areas came back with no gram negative organisms.</p> <p>Dr Morag Campbell asked if patients who have had <i>Staphylococcus capitis</i> had been contaminating the port of the incubator. If babies are active and mobile you cannot rule out the possibility that the Staph capitis is found on the portholes of incubator could come from that.</p> <p>Morag Liddell has reminded staff about cleaning under the drawer handle and if dealing with patient(s) staff may use the drawer to retrieve something without removing their gloves. Actichlor cannot be used on the portholes due to the fumes it will cause within the incubator so staff are using the green universal detergent wipes. Staff try and change incubators more frequently so the incubators not in use can be deep cleaned. The cots rotate round and stored upstairs but each cot would not necessarily be put back into the same room it came from as patients are put into numerous different incubators/cots.</p>	

2.	Microbiology Report (Contd)	ACTION
	<p>Dr Morag Campbell informed the group that [REDACTED] within NICU has had cohort of very complex, high acuity premature patients. Patricia Friel said if the trolleys are difficult to clean then she will look into alternatives trolleys which are easier for cleaning.</p> <p>The cots that were positive were occupied with patients. [REDACTED] currently has a patient that is positive with <i>Staphylococcus capitis</i> who is currently in an incubator that had positive environmental result. Aprons and gloves are kept in the incubator drawers. Historically all aprons and gloves were in boxes on the wall mounted dispensers. This was changed a few years ago to put gloves/aprons into drawers within the incubators as a recommendation at the time. Ward management are to have a look at what is kept within the incubator drawers and dispose of the items as they might be contaminated. Also to see if the drawers are the best solution to store equipment as issue with drawer handles being contaminated.</p> <p>Dr Morag Campbell asked if we have sampled cleaned cots that are ready for use. The IPC team have not as they are currently concentrating on where we have a problem where the positive patients are. The IPC team will add this onto possible environmental sampling programme later on.</p> <p>No patients within [REDACTED] have <i>Acinetobacter lwoffii</i>.</p>	<p>PF</p> <p>JH/PF</p> <p>IPCT</p>
	Typing Results	
	<p>Out of a total 9 isolates, 8 results have returned with 1 isolate could not be typed as not available so case will always remain as probable case.</p> <p>3 isolates that are type 20 3 isolates types are type 20 but have 2 band different compared to the first band 20 1 isolate with a 3 band different 1 unique 1 not typed</p> <p>Serratia isolates from environmental sampling and patient samples are currently gathered together to be sent to reference lab for whole genome sequencing to see what the significance is for these bands with regards to being closely related or not.</p>	<p>LAB</p>
3.	Hypothesis	
	<p>Dr Bagrade said the hypothesis is an unidentified probably environmental source of <i>Serratia marcescens</i> in the unit and possible patient to patient transmission via staff hands and/or equipment.</p>	
4.	Risk Management/Control Measures	
	<p>Last week it was agreed to change from enhanced supervision visits to weekly SICP's audit. The most recent audit was carried out on 4th June and scored 95%. Small amount of dust and some sticker residue were found on patient equipment. Gillian Bowskill said there has been a marked improvement within the ward regarding SICPs.</p> <p>Hand Hygiene audit was carried out today scoring 95%. A visiting surgeon let them down which was fed back to individual at time of audit.</p>	

4.	Risk Management/Control Measures	ACTION
	<p>Staff have started to use the tool box education talks with initial feedback saying it is being well received. Details of the hand hygiene application has been circulated to staff. Stefan Morton will be carrying out hand hygiene teaching sessions for staff.</p> <p>Update on a solution for storage within NICU is currently ongoing with long term storage solutions currently being explored. All stock levels across unit are being streamlined to the amount they require. Staff are communicating with store manager and ward product manager to keep stock levels safe and having awareness of when issues may occur.</p> <p>Patricia Friel gave an update on staffing level issues. Currently looking at daily cleaning checklists to see if the workforce currently in place (4 full time housekeepers) are encapsulating everything. Patricia also looked at the safe to start status since the beginning of April where a percentage of shifts were on RED but majority of shifts had additional staff redeployed and was safe to continue. Patricia will run routine reports on a weekly basis looking at the safe to start basis across all their areas to high light areas that are under pressure. A new graduate recruitment is anticipating more newly qualifying nurses coming in. NICU also have the ability to book premium rate agency nursing staff to cope with current activity including non-registered staff to maintain standards across the unit.</p> <p>A short life working group will develop a standard operating procedure (SOP) regarding Hydrogen Peroxide Vapour cleaning within NICU has bene set up. This group will look at how to streamline HPV cleans so they don't run over their expected finishing date. The SOP developed will be utilised across all NICU sites across GG&C. The group will look at the standard of cleanliness required of the area before HPV cleans are undertaken. Sandra Devine forwarded onto Janice Heggie, Lothian's SOP regarding HPV cleans for information.</p> <p>Dr Bgrade brought up the issue with <i>Staphylococcus capitis</i> within NICU. ARHAI colleagues are reporting this to Scottish government and wanted to make sure everyone within this group were comfortable and content that all control measures that are applicable to <i>Serratia marcescens</i> are also applicable to Staph capitis as well.</p> <p>Currently we do not have an active surveillance programme for Staph capitis. A Public Health England (PHE) directive alerted us to a slight increase within England of Staph Capitis infections within neonatal units, mainly from bloodstream infection.</p> <p>PHE are advising to identify any coagulase-negative Staphylococcus isolates from a normally sterile sites. These strains that are suggestive of a specific strain should be sent for typing. Dr Bgrade was alerted by her colleagues regarding some staph capitis blood stream infections so a look back from 1st January 2021 was undertaken. Microbiology identified 8 cases of staph capitis where the anti-biogram would suggest they might be particular NRCS-A strain. Of the 8 cases identified 6 were invasive cases (blood stream) and the other 2 were from non invasive samples. Dr Bgrade shared a graph comparing all the neonatal sites across GG&C (PRM, South, RAH). The graph does not take into consideration the denominator for each unit where the differences would be large.</p> <p>The group asked what the significance of this epidemiology is and should patients be treated and a screening programme introduced? Dr Bgrade said there is a UK wide meeting next week regarding this where representatives of GG&C will attend. All questions will be discussed and hopefully answers will be available after the meeting.</p>	<p>JH/PF</p>

5.	Further Investigations Required	ACTION
	<p>NICU are looking into normal routine practice of all procedures involving gut micro flora. Morag Liddell said they already have SOP's for rectal washouts and stoma bag changing. All nappies are changed within room and are put into clinical waste bins within the room. For rectal washouts jugs are used which are then covered and transported to the sluice on a trolley. Nothing is carried out with the rooms apart from the jugs. Current SOP for rectal washout out doesn't mention the use of jugs.</p> <p>IPC team have requested to be present the next time they are carrying out a rectal wash out.</p> <p>The IPC team will continue with weekly SICIP's and hand hygiene audits and work on any actions identified. It was agreed that these audits will continue for a month with the view of decreasing the frequency if consecutive good audits are achieved.</p> <p>HPV group review process regarding cleaning before undergoing HPV clean.</p> <p>Dr Bagraade asked the group if they thought we were in apposition to draw a line under this <i>Serratia marcescens</i> incident taking into account that there has been no new cases in 26 days and good progress had been made in all work streams and control measures. The action plan will continue regarding the progress of work and the IMT's would restart if cases reach certain trigger within a timeframe. The group agreed to close incident and meet up in 2 weeks to review the progress from the ongoing action plan. Dr Bagraade is happy to lead on this however if you think it can be better lead by someone else this can be discussed.</p> <p>Remind the group that <i>Staphylococcus capitis</i> incident is not closed and remains open. Will wait until the UK wide meeting next week to see if any further requirements are needed.</p>	<p>SCN/IPC</p> <p>IPCT</p> <p>JH</p>
6.	Healthcare Infection Incident Assessment Tool (HIIAT)	
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as <u>GREEN</u>.</p> <p>Severity of illness – MINOR Impact on Services – MINOR Risk of Transmission – MODERATE Public Anxiety – MINOR</p>	
7.	Communications - ARHAI/Scottish Government HAI Policy Unit	
	Annette Rankin will take this forward and update the Scottish Government.	
8.	AOCB	
	Dr Bagraade thanked all the staff within NICU regarding their help and also Anette Rankin and Dr Weinbren in supporting the group.	
9.	Date & Time of next meeting	
	It was agreed to give the group 2 weeks until a follow up meeting is arranged for 22 nd June at 12pm.	

Agreed Action Plan from IMT 10th June 2021

Date agreed Action	Action	Responsible Person	Status/Update
10/06/2021	Look into alternative trolleys which are easier for cleaning.	Patricia Friel	
10/06/2021	Ward management are to have a look at what is kept within the incubator drawers and dispose of the items as they might be contaminated. Also to see if the drawers are the best solution to store equipment as issue with drawer handles being contaminated.	Patricia Friel / Janice Heggie	
10/06/2021	The IPC team will add new/clean ready to use incubators onto environmental sampling programme later on.	IPCT	
10/06/2021	Await Serratia typing results	Microbiology	
10/06/2021	HPV short life working group to review process regarding cleaning before undergoing HPV clean.	Janice Heggie / Patricia Friel	
10/06/2021	Develop SOP for HPV cleans	Janice Heggie / Patricia Friel	
10/06/2021	IPC team have requested to be present the next time they are carrying out a rectal wash out.	SCN/IPCT	
10/06/2021	Weekly SICPs and Hand Hygiene audits will be undertaken	IPCT	

Previous Actions for IMTs

02/06/21	Gillian Bowskill to include the top of the computer screens at the bedside in the next round of sampling.	G Bowskill	Ongoing
02/06/21	Janice Heggie to explore other areas available for storage	J Heggie	Ongoing
02/06/21	Jamie Redfern and clinicians to look at what staff is available in the unit with regards to the cleaning of equipment.	J Redfern/ Clinicians	Patricia Friel gave an update on the staffing levels as detailed in the IMT minutes dated 10/06/2021
02/06/21	Infection Control and Janice Heggie to work together to do the SICPs audit and to look at any areas that need more focused improvement work and to work with clinical team to identify clinical issues.	Infection Control/ J Heggie	Ongoing weekly SICPs audits with the view to decrease/review these audits in a months time.
02/06/21	Jamie Redfern agreed to provide a summary of what the safety huddles have been in relation to nursing staff.	J Redfern	Ongoing
24/05/21	Environmental sampling programme in NICU to continue	IPCT	This is continuing to be carried out.
24/05/21	Report on works carried out on drains after the last incident to be sent discussed and sent out to the group.	K Clarkson	Dr Bgrade has received the reports.
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12/05/21	Hugh Brown to send Dr Bagrade the verification of ventilation that was carried out in the unit.	H Brown	
12/05/21	The unit to look at usual routine practice for all procedures involving gut microflora.	Clinicians/ Nursing team	Morag Liddell said there is a protocol for all these things and wear gloves and aprons as they involve body fluids.
12/05/21	Dr Peters commented that sometimes the security staff do not ask for an ID badge and Pat Coyne agreed to raise this with their manager.	P Coyne	
12/05/21	Clinicians to assess if any Duty of Candour process is required.	Clinicians	Discussed at every meeting.
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30/04/21	Timeline of cases	G Bowskill	Timeline commenced 26.04.21 and is updated as required and will send to IMT members.

**Incident Management Team Meeting Videoconference
Gram Negative Bacteraemia Blood Cultures in Ward 6A, QEUH
Thursday 5th August @ 13:00**

Present:

Dr Linda Bagrade (chair)	Lead Infection Control Doctor
Gillian Bowskill	Lead IPC Nurse, South Paediatrics
Prof Brenda Gibson	Consultant Paediatric Haematologist
Mandy Meechan	Lead Nurse for Paediatrics
Pamela Joannidis	Acting Associate Nurse Director IPC
April McDaid	Acting Senior Charge Nurse, Ward 6A
Catriona Riddell	Lead Nurse for Inpatient Areas, RHC
Andrew Clark	Press Officer
Susie Dodds	IPC Nurse Consultant, ARHAI (left at 14:00)
Natalia Hedo	IPC Business Manager
Annette Rankin	IPC Nurse Consultant, ARHAI
Jamie Redfern	Women & Children's Director
Melanie Hutton	Clinical Service Manager, Paediatrics & Neonates
Angela Wallace	Interim Operational Director of Infection Prevention and Control
Euan Smith	Assistant Head of Estates (South Sector)
Sharon Johnstone	Deputy Site Facilities Manager
Calum MacLeod (minutes)	IPC Administrator

1.	Introduction	ACTION
	Dr Bagrade welcomed everyone to the meeting, introductions were made and the group were reminded of the need for patient confidentiality.	
2.	Situation Statement	
	This meeting was called today to discuss 3 Gram Negative Bacteraemia (GNB) isolates in blood cultures within the haematology/oncology Ward 6A, QEUH within the last 30 days. This meeting will look at the current situation to see if any common factors or changes in services can be identified, agree on possible hypothesis, review control measures already put in place and see if any additional actions are required.	
3.	Patient Report	
	Gillian Bowskill gave the following brief patient report: <div style="background-color: black; color: white; padding: 2px;"> Enterobacter cloacae </div>	

3.	Patient Report (Contd)	ACTION
	<p> [REDACTED] <i>Klebsiella pneumoniae</i> [REDACTED] [REDACTED] [REDACTED] </p> <p> [REDACTED] <i>Enterobacter cloacae</i>, <i>Enterobacter cancerogenus</i>, <i>Klebsiella pneumoniae</i> and <i>Staphylococcus hominis</i> [REDACTED] [REDACTED] [REDACTED] </p> <p> The last time Ward 6A triggered the GNB blood cultures within a 30 day period was on 20/11/2020. </p> <p> Last <i>Enterobacter cloacae</i> blood culture in Ward 6A was over a year ago. </p> <p> Last <i>Klebsiella pneumoniae</i> blood culture in Ward 6A was on 23rd April 2021. </p> <p> [REDACTED] [REDACTED] [REDACTED] </p>	
4.	<p>Hypothesis</p> <p> The first hypothesis, Dr Bagrade suggested to the group that all three patients have underlying clinical problem that would explain an endogenous source of infection i.e. translocation from organ(s) to blood stream. Prof Gibson agreed with Dr Bagrade hypothesis as all three patient have underlying health conditions. </p> <p> The second hypothesis was considering if the cause of these infections was exogenous either from an environment in ward 6A or other areas patients would have attended like Theatre 6. This is unlikely event as there is no evidence of environmental source and all of the routine and ad-hoc environmental testing results are satisfactory. </p> <p> The presence of CoNS (coagulase-negative Staphylococcus) might suggest a contamination of the blood culture or line colonisation. Clinical significance of this finding is difficult to assess. A Root Cause Analysis is undertaken for all GNB blood cultures. </p>	

5.	Risk Management & Control Measures	ACTION
	<p>The following control measures are currently being undertaken</p> <ul style="list-style-type: none"> • Enhanced supervision audit carried out every 4 weeks. • Hand hygiene audit carried out every 4 weeks with the most recent audit scoring 100%. • Root Cause Analysis is carried out with a clinician for every GNB isolated in a blood culture. • Water is tested every 4 weeks with neither of the organisms mentioned being identified recently from samples. • All taps on the haematology/oncology patient pathway are fitted with point of use filters. • Routine drain decontamination continues. • Continued surveillance of GNB with the use of SPC charts. <p>There has been no reported changes to patient line care or prophylactic antibiotic treatment.</p> <p>Aseptic pharmacy have reduced service to Ward 6A on 5th July until start of October due to staffing issues.</p> <p>A CVC sweep was carried out on 3rd August which identified 14 patients with 13 lines insitu. All care plans were completed correctly and the ward scored 100%. April McDaid carried out a peer audit on line care last week and it scored 100%.</p> <p>Environmental swabbing was undertaken on 3rd August which concentrated on the prep-room and frequently touched surfaces. Dr Bagrade said the results showed no presence of GNB.</p> <p>All patients underwent line insertion procedures in Theatre 6 so confirmation of the ventilation validation of this area is to be confirmed by Euan Smith.</p> <p>Susie Dodds suggested that more investigation into patient pathway outside of ward 6A should be double checked including water samples from areas patients have attended. Gillian Bowskill will double check patient pathways to be certain nothing has been missed from the regular audits undertaken.</p>	<p>E Smith</p> <p>G Bowskill</p>
6.	Further Investigations	ACTION
	<p>Prof Gibson asked for some guidance regarding Morbidity & Mortality (M&M) reviews of all GNB patients which was requested from the recent case note review of RHC. Prof Gibson said that no other centre in the UK is conducting M&M reviews for every GB blood cultures. However Prof Gibson agreed that it required review by someone who can challenge what is presented and suggested that there could be duplication of work as there is already RCA carried out for all GNB blood cultures. Jamie Redfern will raise this with Dr Scott Davidson.</p>	<p>J Redfern</p>

7.	Healthcare Infection Incident Assessment Tool (HIIAT)	ACTION
	<p>The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as AMBER.</p> <p>Severity of illness – MODERATE Significant event for patients as lines had to be removed and treatment was delayed</p> <p>Impact on Services – MINOR Ward is still open with no restrictions in place</p> <p>Risk of Transmission – MODERATE IPC haven't found any evidence of transmission to patients but ARHAI have requested evidence of ventilation validation report in the light of possible line colonisation with CoNS. It was agreed to keep risk of transmission as moderate until all possible routes of transmission are excluded. Pamela Joannidis commented that attempting to deescalate this from moderate to minor may prove challenging if linked to insertion of lines or line care since the lines were now removed and all monitoring of line care practice had been reported a very good.</p> <p>Public Anxiety – MODERATE Press officer suggested to score this major due to the history of this ward. Prof Gibson informed the IMT that all parents had been spoken to and had raised no questions about exogenous sources. Jamie Redfern informed the group that this incident should be assessed based on current situation and not historical events.</p>	
8.	Communications – Advice to Patients/Duty of Candour	
	All families have been informed and spoken to about their infections.	
	Communications – Advice to Professionals	
	<p>Discussed in Root Cause Analysis and clinical meetings.</p> <p>IPC will update the online HIIORT for Health Protection Scotland.</p>	G Bowskill
	Communications – Media	
	Andrew Clark will send out a holding statement to Linda Bagnade and Gillian Bowskill, which will be also sent to ARHAI.	A Clark
10.	Date & Time of next meeting	
	It was agreed that this IMT will meet up again in two weeks' time. Weekly updates to ARHAI will continue and if any new cases or anything else is identified during these two weeks an IMT will be held sooner.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
05/08/21	Validation confirmation of Theatre 6	Euan Smith	Complete
05/08/21	Check patient pathways out with ward 6A	Gillian Bowskill	Complete
05/08/21	Raise issues with morbidity and mortality meetings in relation to guidance on how these will be conducted with Dr Scott Davidson	Jamie Redfern	Ongoing
05/08/21	Complete online HIIORT for ARHAI	Gillian Bowskill	Complete
05/08/21	Press holding statement will be sent tout to group for comment	Andrew Clark	Complete

Action sheet

Meeting:	<u>Incident Management Team (IMT) Meeting</u> Ward 6A RHC/QEUH- <i>Chryseobacterium</i> sp	Meeting called by:	Infection Prevention & Control Team (IPCT)
		Date & Time	09/02/2022, 14pm
Attendees:	Linda Bagnade- Consultant Medical Microbiologist, ICD (Chair) Gillian Bowskill- Lead Nurse Infection Prevention & Control Robert Brown- Duty Manager Brenda Gibson- Paediatric Haematologist Annette Rankin- Milnd Ronghe- Paediatric oncologist Kerr Clarkson- Site manager for Operational Estate Andrew Clark- Member of COMs team April Mcdaid- Senior charge nurse 6a Mandy Meechan- Chief nurse for paediatrics and neonates Natalia Hedo- Business Manager Catriona Riddell- Nurse 6a Sandra Devine- Acting Infection Control Manager Melanie Hutton- General Manager HPN	Apologies:	
HIIAT	GREEN	Venue:	Microsoft Teams Meeting

09/02/2022	<p>4. <u>Hypothesis</u></p> <p>The source of infection remains unclear and there is no evidence to suggest the infection was from the ward environment, however this cannot be excluded.</p>		L.Bagrade
09/02/2022	<p>5. <u>Risk Management/Control Measures</u></p> <ul style="list-style-type: none"> • Rolling hand hygiene audit will continue in ward 6A • The environment within the unit will be monitored continually with rolling water sampling, enhanced supervision audit and hand hygiene audit. • Line care and line care documentation will be monitored closely • The surveillance of infection rates specifically on gram negative bacteraemias within the unit will continue 		L.Bagrade
09/02/2022	<p>6. <u>Agree HIIAT Classification</u></p> <p>The Healthcare Infection Incident Assessment (HIIAT) tool assesses the impact of a healthcare infection incident/outbreak on patients, services and public health.</p> <p>The IMT reviewed and agreed the following:</p> <ul style="list-style-type: none"> • Impact on patient - Minor • Impact on services - Minor • Risk of transmission - Minor • Public anxiety - Minor 		L.Bagrade

Rolling Action List – Ward 6A RHC/QEUH 09/02/2022				
DATE	WHAT: (Action)	WHEN: (Commit)	WHO: (Who)	RESULT: (Conclusion)
12/01/2022	PALL filter to be sent for integrity testing removed following positive water sample on 30/11/21	03/02/22	Estate/DMA	COMPLETED
12/01/2022	Environmental sampling to be carried out in patients room as soon as they are discharged and before the terminal clean	13/01/2022	IPCT	COMPLETED
12/01/2022	Audit of line care practice	12/01/2022	M.Meechan	COMPLETED
12/01/2022	Audit of line care documentation	12/01/2022	IPCT	COMPLETED
12/01/2022	Repeat water samples from all outlets in Ward 6A	13/01/2022	Estates/DMA	COMPLETED
12/01/2022	Parents to be advised of investigation	12/01/2022	Dr.Ronghe& Dr.Bagrade	COMPLETED
09/02/2022	Review of information available to patients and parents on line care when they are out of the hospital		A. Mcdaid	
09/02/2022	Robert will forward his report to the group		R.Brown	



SCOTTISH HOSPITALS INQUIRY

Bundle of documents for the Oral hearing commencing on 12 June 2023 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Bundle 1 – Incident Management Team Meeting Minutes (IMT minutes)

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