SCOTTISH HOSPITALS INQUIRY

Bundle of documents for Oral hearings commencing from 19 August 2024 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Bundle 27 - Miscellaneous Documents

Volume 11

SCOTTISH HOSPITALS INQUIRY

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Time Line **Appendix 2**

Date of enquiry	Reporter	Nature of enquiry
08.02.19	Hannah Rodger	Ms Rodger contacted the Board and had knowledge of: *the cost of QEUH repair bill (£50m); *knew a member of staff from Infection Control had been moved (1) *knew of photos (of pigeon droppings) sent from NHSGGC to the Cabinet Secretary; (2) *stated that Health Protection Scotland had identified issues with ventilation and filtration, said not adequate. Had detailed knowledge of effectiveness of electronic alarm systems, ducting and HEPA filters; (3) *knew the BMA had contacted the Board and dealt with the Board's Medical Director (Dr Jennifer Armstrong) over treatment of staff members who had raised concerns over pigeon droppings. (4) A story published in the Herald on 10/03/2019 showed a picture of bird droppings in a room. Appendix 3 refers. Ms Rodger stated that "Infighting between infection control teams and health board facilities and estates team is rife, according to various senior NHS sources." She also quoted from a "report into water contamination issues."
		Comments 1. There would be a number of staff both within and outwith the Infection Control Dept in the Board who may have known the staff member had been moved and whilst it is possible this information was shared with the media by a staff member, this would difficult to prove. 2. Clearly only specific individuals were aware that pictures were taken and that these were sent to the Cabinet Secretary. 3. Re HPS, it is unclear how this information was gained. 4. Re knowledge that the BMA contacted the Board's Medical Director, it is possible that one of the members of staff who had contacted the BMA released this information to the media.

21.05.19	Hannah Rodger	Ms Rodger contacted the Board and stated: Asset register and infections: *she knew aspergillus was found in RHC ward 2C *has a copy of a SBAR stating patients infected with fungus (1) Ms Rodger asked for more details about concerns raised in 2015.

24.05.19	Hannah Rodger	Ms Rodger contacted the Board and said: *"Apologies, just one thing about the exophiala. In the SBAR is states quite clearly patients were infected with the fungus, which contradicts your statement. Just wanted to point that out, and double check this is your position?"* A story was published in the Herald on Sunday on 26/05/2019 which stated they had obtained hundreds of documents (2) which detailed problems at the hospital site, including details of two outbreaks linked to defects. …exophilia was detected in 2017 from a dishwasher which hadn't been installed or cleaned properly. In 2017 three microbiologists blew the whistle over a catalogue of safety concerns, (3) following concerns also raised in 2015." Appendix 4 refers Ms Rodger quoted directly from the SBAR document which had not been released under any FOI request. A second story was published regarding ICE theatres. Ms Rodger quoted a source as saying: *"One senior employee of NHSGGC said: "They have spent millions in getting these theatres up to scratch so they could move patients out of these theatres which have got faeces leaking in them. They have failed once again…."*
		Comments 1. Dr Armstrong's office has confirmed that the SBAR in question was from October 2017 and was an NHS document. 2. Without knowing exactly what documents the media had obtained, the reference to 'hundreds of documents' is concerning and would have been passed from NHSGGC.

25.07.19 and 02.08.19	Hannah Rodger	Ms Rodger contacted the Board to ask: *if we had a water based infection in Ward 6A – different to the last one, affecting younger patients *Ms Rodger also had information that one patient was taken to Edinburgh for treatment. A story was published in the Herald (1) on Sunday on 28/07/2019 regarding 'Focus was on the HSE enquiry and spoke about a source close to the investigation'. Appendix 5 refers. A story was published in the Herald on Sunday on 04/08/2019 regarding Ward 6A closed to new admissions. Appendix 6 refers.

09.08.19	Hannah Rodger	Ms Rodger in her email dated 09/08/2019 regarding ICE theatres said: "I have spoken to several well-placed employees of NHSGGC, who claim that undue pressure was applied by both the Scottish Government and your former Chief Executive Bob Calderwood to finish the RHC and QEUH on time, and…." A story was published in the Herald on Sunday on 11/08/2019 which quoted extensively from "staff working at NHSGGC…" Appendix 7 refers.

13.09.19	Hannah Rodger	Ms Rodger in her email dated 13/09/2019 confirmed she had obtained documents (1) relating to the Queen Elizabeth University Hospital and Royal Hospital for Children which show evident problems in the hospital's ventilation system which warrant further investigation. She stated they also detailed problems with record keeping on the builds themselves, concerns about thermal wheel devices which are fitted onto ventilation throughout the hospital not being suitable for hospital due to the risk of contamination, and indications that the air handling units selected, potentially throughout the entire site, have not been sized correctly relating to the problem with obtaining the required number of air changes needed for the various wards. She further confirmed that the documents* also contain a suggestion that: - the [redacted] (2A) was not originally designed or intended to be used for immunocompromised patients - that the BMT wards for adults were not built for purpose - the suggestions made by NHSGGC to fix the problems with the adults BMT wards not meeting the guidance nor resolving all the problems they have, and issues with the children's BMT wards. - Six of the eight suites for child BMT patients were in need of retrofitting air handling unit changes, as they were not up to standard, but only four in the end were completed. Patients continued to use these eight suites until they were moved from RHC to QEUH along with the other [redacted] patients in September 2018. Ms Rodger also stated that other issues identified from these documents involved the inaccurate or missing records from the Zutec system for the builds. In one of the reports, from a company called Innovated Design Solutions, they point out various anomalies in the records system for the build compared to what has actually been implemented." The documents Ms Rodger had were: 1. Innovated Design Solutions Feasibility study regarding increasing ventilation air change rates in Ward 2A – October 2018 2. Minutes of meeting to discuss BMT Unit RHC, Monday September 7, 2015

		at 4.45pm 3. Health Protection Scotland and NSS situational report on the SBAR raised about QEUH Bone Marrow Transplant Unit, completed by Annette Rankin for HPS/HFS on October 2017. A story was published in the Herald on Sunday on 15/09/2019 regarding documents which were passed to the Herald on Sunday and detail the extent of the issues. The story stated that "the cache of reports obtained by Herald on Sunday included a study into air circulation within ward 2a…." It quoted from a study by a private contractor and also quoted from "a health watchdog report from October 2017 warning NHSGGC that its plans to fix bone marrow transplant suites in QE did not meet guidance." Appendix 8 refers.
		Comments 1. These documents almost certainly were shared out with formal NHSGGC communication / channels.

18.09.19	Anas Sarwar	On the 18th September 2019, Anas Sanwar, MSP stated in Parliament that: "…. The Health Board had oversight of this project, they signed off this project. Why weren't infection control experts at the heart of this project and how much has been spent on remedial works that could have been spent on patient care? Now I've had worrying information shared with me from whistle-blowers at the Queen Elizabeth that there's not been accuracy from the Health Board, for example, the Health Board have said that there were only 22 reported infections at ward 2a when in fact there was 40 cases and when HPS did investigate they only investigated 2017 cases and not 2016 cases. I've also got worrying insight into whistle-blowers identifying problems whilst the hospital was being built after it was opened and ever since and they weren't listened to and were forced to whistle blow in September 2017. They were intimidated, they were bullied, they were silenced, leading to two resignations of infection control experts at the QEUH. "

13.11.19	Anas Sarwar	On the 13th November 2019, Anas Sarwar, MSP stated in Parliament that with regards to water infections: *He has an HPS report into the 23 contaminated water cases in 2018 which was published this year. *claimed after publication, a doctor-led review of cases in 2017 (relating to the two [redacted]) was carried out by infection control. *A whistleblower had told him that up to 26 water infection cases were identified in 2017 by the review. It was also concluded that a water-related infection (stenotrophomonas) had to be considered as the cause of death in one [redacted].

		*The whistleblower had also claimed that no action had been taken by the Board as a result of the review, and that the [redacted] had not been informed about the review's findings. A story was published on the 14/11/2019 which claimed that a whistleblower has gone to Anas Sarwar claiming a [redacted] died due to water contamination. Appendix 9 refers.

15.11.19	Hannah Rodger	Ms Rodger in an email to the Board dated 15/11/2019 stated: 1) I understand your lead infection control doctor at the QEUH has resigned from their role, and three infection control nurses have left NHSGGC in the last few months also. Can you tell me if these people have been replaced, how many other members of your infection control team have left in the last six months and whether you now have a lead infection control doctor in the post left by the last one? 2) I understand the lead infection control doctor resigned as they felt they were not being listened to or being given honest answers about the safety of ward 6A/B. Would you like to comment? 3) If the water in ward 6A/B is safe, why have the taps got filters on them and why have you added additional filters recently, as parents were informed by letter from Jane Grant just yesterday? 4) Were HPS informed of the death in 2017 related to water which was reported by the daily record yesterday? A story was published on 17/11/2019 regarding "senior infection staff quit over safety concerns…" Appendix 10 refers.
		Comments • Clearly a member of staff has gone out with recognised process, however given the size of the department and the assumption that this would be common knowledge with the department and perhaps wider, it would be difficult to determine which staff member had deliberately provided the media with this information.

18.11.19	Paul Hutcheon, DR	Dr Hutcheon contacted the Board asking that in connection with any red HIIATs or recent child deaths? - if a child patient had died in the last three weeks after contracting an infection - if any wards currently had a red warning (HIIAT) in place due to an infection, and if so, what is the reason? A story was published on 20/11/2019 stating "We need answers for [redacted]

		[redacted]." Appendix 11 refers.

24.11.19	Anas Sarwar	A press release by Anas Sarwar, MSP stated: **MORE INFECTIONS IN [redacted] PATIENTS AT QEUH DATING BACK TO 2016** An NHS whistleblower (1) has claimed a clinician-led probe into infections linked to the water supply at the flagship Queen Elizabeth University Hospital uncovered ten cases as far back as 2016. That is on top of the 26 cases uncovered in 2017 by the same review, including [redacted] who tragically died, and on top of 23 cases in 2018 reported by Health Protection Scotland (2) – all in [redacted]. It can also be revealed that whistleblowers officially raised concerns about infections at the hospital just days after [redacted] death in [redacted] 2017, as detailed in a submission to Holyrood's Health Committee. Other publications in the Sunday papers reported that: • A report from the Health and Safety Executive (3) was sent to the Glasgow Health Board's Chief Executive in November 2018 and listed a raft of problems with how staff were trained and equipped to deal with highly contagious diseases, according to the Sunday Post. • The proximity of a sewage plant to the QEUH has been investigated, according to the Sunday Times. • The [redacted] of a [redacted] treated at the hospital in September this year told the Scottish Mail on Sunday [redacted]' after [redacted] had [redacted] line removed and pathology revealed it had five separate bugs in it'. The Health Board has claimed an investigation 'found no links between the individual infections and no link between the infections and the ward environment''. • The [redacted] of a cancer patient who died at the hospital this year branded the facility 'sick' in an interview with The Scottish Sun. Anas Sarwar, MSP stated: *"These latest revelations from an NHS whistleblower show that problems at this hospital have been going on for years. It's clear that action should have been taken much earlier by senior managers to prevent the tragedy which unfolded. Doctors responded to concerns about the circumstances of [redacted] death by starting the formal whistle-blowing process in September 2017. Dedicated staff repeatedly raised issues about the water supply with senior management, but they weren't listened too. Now a number of heartbroken parents have spoken out following the Health Board's failings to tackle this crisis. It has taken the brave actions of whistleblowers to bring this scandal to light. Now that the Health Board has been placed in special measures, parents must be told the truth about what has gone so catastrophically wrong."*

		ENDS Ten more cases uncovered from 2016: https://www.dailyrecord.co.uk/news/scottish-news/nhs-whistleblower-reveals-10-more-20946043 [redacted] died on [redacted], 2017. This submission to Holyrood's health committee shows that whistleblowers formally raised concerns in September 2017: https://www.parliament.scot/S5_HealthandSportCommittee/Inquiries/HS-S5-19-HHHE-A4.pdf Most/ all daily papers on 25/11/2019 carried this story prominently.
		Comments: 1. It has been confirmed that the NHS Whistleblower referred to by the MSP did not report this through the Board's whistleblowing policy. 2. The HSE only publish Improvement Notices on their site, but do not publish any other communication. In addition, the HSE site has been down for several months. It was confirmed that both the Board and HSE received FOI requests from an ex-employee, which we understand let to an article in the Sunday Post.

28.11.19	Anas Sarwar in FMQs	Anas Sarwar, MSP stood up in FMQ: He said evidence (3 reports one from 2015 before the hospital opened, 2017 and 2018) showed NHS Greater Glasgow and Clyde knew the water at the new hospital was contaminated when it was transferred from the contractors: Water was not safe, high levels of infections. Weeks before [redacted] died infection control doctors raised concerns about line infections amongst [redacted]. Three weeks before [redacted] died hospital infection control doctors informed Hospital management about further infections and this was escalated to HPS and the SG. A month after [redacted] death an assessment of the water supply was done and found the water supply to be not safe and had high risk of infection. At each of these stages these warning were ignored and appropriate action was not taken. This led to the death of at least on [redacted] If this happened in the private sector, there would not be a public inquiry, there would be a criminal investigation, he insisted.

29.11.19	Hannah Rodger	Ms Rodger contacted the Board on 29/11/2019 and asked: *"I understand NHSGGC has an incident at the moment involving [redacted] patients and infection. I understand there has been one [redacted] who died this week, and an IMT into the death/possible associated infection also held this week."*

		A story published by Herald on Sunday on 01/12/2019 stated: *"A new investigation has been launched into further infections at Glasgow's super hospital after a [redacted] died this week".* This story contained the wrong date and the ward. Appendix 12 refers.

6.12.19	Hannah Rodger	Ms Rodger contacted the Board on 06/12/2019 and requested to know why [redacted] death was never reported to the Crown Office for investigation? A story published by the Herald on Sunday on 08/12/2019 quoted 'sources working at QEUH' and 'One senior source'. Appendix 13 refers.

17-20.12.19	Hannah Rodger	Ms Rodger contacted the Board between the 17 and 20 December 2019 with a number of questions. These are summarised below: 1) Three [redacted] have died at RHC Paediatric ICU around the same time, one with serratia as mentioned in your Board papers and two with pseudomonas infections. I note that only serratia is recorded in the Board papers, and there was no mention before of the other two. Why was this? 2) If the three deaths above are not the three *HAITTS (HIIAT) recorded from the RHC, by NHSGGC, then please provide details of what the three HAITTS are, what bacteria, whether there were any fatalities in these HAITTS and what level they were recorded at. 3) Can you let me know why my interview request with Jane Grant was not accepted 4) I have one additional question. I note you have stated yesterday that the mucoraceous mould in [redacted] case was untraceable during the investigation: *"During the incident management team investigations there was a number of areas inspected for sources of mould with nil found and validation results were satisfactory."* However, your Board papers state something entirely different, clearly stating the presence of mould. Why have you said there was no mould? Two articles appeared in the Herald on Sunday on 22/12/2019. One was an interview with the Cabinet Secretary. The other was an article which claimed three more [redacted] had died after contracting infections at QEUH. Appendix 11 refers. The Board contacted the paper about the inaccuracy of this story and after a full discussion with the desk editor, the story on the deaths was withdrawn online and the interview with the Cabinet Secretary was updated to remove any reference to the three infections.

		The Board also issued a statement to all other media outlets clarifying that this article was not correct.

24.12.19	Hannah Rodger	She asked: 1) Have you/will you acknowledge the stenotrophomonas was a hospital-acquired infection 2)What tests were carried out to determine the source of the bacteria 3) Why was the death of this patient not reported to HPS, despite the initial infection being reported? No story was published regarding this.

26.12.19	Hannah Rodger	Ms Rodger contacted the Board on 26/12/2019 and stated*: "I understand HSE has issued an improvement notice regarding ventilation at the QEUH"* Contact was made only a few days after the Board had received the HSE letter. The Board issued the information relating to the improvement notice to all media proactively on 27/12/2019. Appendix 14 refers.

31.12.19	Hannah Rodger	Ms Rodger contacted the Board on 31/12/2019 to ask why was MM HIAT downgraded from red to green? The Herald on Sunday published a story on the 05/01/2020 stating that the *'Health Board downgraded infection two weeks before* [redacted] *death'*. (There was no media follow up to this story.) The Board has drafted a letter to the Editor of the Herald on Sunday offering a meeting with our CE and Chairman.

Data Breach Report

Situation

There has been a great deal of interest from the general public, the media and others regarding concerns of infection outbreaks at the Queen Elizabeth Hospital sites and the subsequent announcement that a Public Inquiry would be held. The Board, as a result of this, has received a number of requests for information under the Freedom of Information (Scotland) Act. A summary of these requests is attached as Appendix 2.

In addition to the FOI requests, a journalist has been in communication with the Board and from their correspondence it appears they have received both written and verbal information relating to Board business from unknown sources. Some of the information and knowledge they have has not been released by the Board via FOI requests or other official channels. A summary of this communication is attached as Appendix 3.

An MSP has also raised concerns in Parliament regarding these outbreaks and refers to information which has been shared with him from whistleblowers, including reports from 2015, 2017 and 2018.

The communications from the MSP and journalist has led to concerns being raised that some staff may be providing information to the media and MSPs without notifying the Board or going through the Board's Whistleblowing Policy. The implications, if these concerns are founded in fact, is that this type of uncontrolled release of information could result in personal data breaches, which in turn could cause significant harm and distress to impacted individuals and patients.

Background to Investigation

In September 2019 the Scottish Government announced a Public Inquiry would be held into the infection outbreaks at the Queen Elizabeth Hospital sites.

This followed concerns regarding the safety and wellbeing of families and their children whilst receiving treatment in the hospital. The inquiry will determine how vital issues relating to ventilation and other key building systems occurred, and what steps can be taken to prevent this being repeated in future projects.

A senior clinical lead at Scottish Government has been appointed to review these concerns. In addition, an external review on the Board's data on healthcare-associated bloodstream infections and the actions taken to ensure infection prevention and control is also underway.

The findings of the Inquiry are to be reported to the Scottish Government's Oversight Board.

Action

Specifically in response to the concerns about the potential data breaches a review of the information requests as set out in Appendix 1 was undertaken. Whilst there appears to be evidence/indication that information has been lost out with the formal Whistleblowing route, as The Board has not had sight of the information referred to by the MSP in Parliament and in a press release, in particular regarding the 'clinically led review', we cannot say with any certainty that it did not contain any personal identifiable data.

Additionally, where reference is made to individuals, it is not conclusive from the comments made whether these relate to specific personal identifiable information or whether it relates to more statistical or generic references such as 'a member of staff' or 'copy of a SBAR stating patients were infected by a fungus'.

Part of the investigation included reviewing relevant FOI requests. While the findings cannot be deemed conclusive, there is a number of FOI requests that would link to some of the media and 3rd party enquiries and could have been used to formulate some of the media stories which have been published. This investigation was completed in addition to the business as usual activities, including audit, training and awareness campaigns that focus on the importance of maintaining patient confidentiality and data protection. As part of GDPR preparedness, a communication campaign was delivered across the whole Board properties during 2017/2018 which promoted the importance of protecting both staff and patients' personal information.

Conclusion

The Data Protection Officer has been unable to obtain any definite evidence that personal identifiable information has been released to external bodies. However the documented timelines would imply that individuals with knowledge and access to information have been operating out with the Boards formal communication channels or recognised whistleblowing process. It should however be noted that if individuals have access to data and intelligence as part of their official duties, it is highly unlikely that the Boards detection systems and processes will be able to identify a data breach under data protection legislation.

NHSGGC have actively engaged with the UK ICO to raise our concerns regarding the scenarios which have occurred, and have highlighted that as much of the 3rd party evidence has not been shared with the Board, it would be difficult to identify a data breach to a single system or individual. Advice from the ICO has outlined the need to ensure there are adequate controls in place across the Board to deter and prevent unauthorised access to information. This would include:

- Mandatory training for all staff
- Clear policies and procedures which staff adhere to
- Regular awareness updates on key issues

Appendix 1 provides a summary of the background to the Board seeking the advice of the ICO and the advice provided by them.

Recommendations

In order to mitigate the risk of a data breach, the following actions should be taken immediately and be continued over regular intervals:

1. Continue to promote staff awareness on how they can voice genuine concerns whilst continuing to protect patients' personal information in a fair and transparent way. This could include increased activity such as:-

    - Targeted core briefs, posters, StaffNet alerts;
    - Campaigns focusing on data protection obligations and personal consequences of using information without lawful reason;
    - Promoting existence of FairWarning process and other audit activity to protect both the Board, staff and patient data we hold;
    - Promoting awareness of Whistleblowing Policy;
    - Ensuring alerts are clear, fair and transparent. The criteria to meet protection disclosure rights under whistleblowing includes not breaching legislation in order to make a disclosure, or making a disclosure for personal gain.

2. Audit Investigation

    - Increase assurance activity on a risk-based approach to assist the Board in delivering on its obligations including GDPR Principle 7, Accountability.

Isobel Brown
Data Protection Officer
NHS Greater Glasgow and Clyde

Appendix 1

Background to NHSGGC concerns raised with ICO on 13th Dec 2019:

NHSGGC considers itself an organisation with a strong culture of protecting patient confidentiality and respecting privacy. During the current period of external and internal scrutiny however there is a concern/suspicion that both, as part of whistleblowing, and out with the Whistleblowing Policy some patient personal and special category data may be being accessed and shared inappropriately.

In order to ensure a balanced approach NHSGGC were keen to understand the ICO's expectation of NHSGGC as a Data Controller during this time. In particular how it can evidence that it is balancing the need to protect patient information while not being perceived as obstructing what could be seen as staff's rights in raising concerns, particularly through the Whistleblowing Policy.

ICO Response:

If this were to be happening the data breach would likely fall within a DPA 2018, Section 170 – which builds on Section 55 of the previous Data Processing Act 1998 which criminalised knowingly or recklessly obtaining, disclosing or procuring personal data without the consent of the data controller. Section 170 adds the offence of knowingly or recklessly retaining personal data (which may have been lawfully obtained) without the consent of the data controller.

The victim is likely to be the data controller whose data has been unlawfully obtained, procured, disclosed or sold, as well as the data subject whose data is involved in the offence, subject to them having suffered some type of harm or economic loss as a direct result.

As a data controller there is the ongoing obligation to monitor inappropriate access, and is likely to be a defence against the above offence, and in fact the trigger for identifying the data breach. To assist the NHSGGC in monitoring unauthorised access there is obviously the Fairwarning process and thereafter the policy for investigating and dealing with further inappropriate access. This particular concern/suspicion shouldn't necessarily be dealt with any differently.

There are a number of statutory defences available under S.170 that mean a person is not guilty of the offence if it can be demonstrated that:

- It was necessary to obtain, disclosure or procure the data for the purpose of preventing crime;
- The obtaining, disclosing or procuring was required or authorised by or under any enactment, by any rule of law or by the order of a court;

- They acted in the reasonable belief that they had in law the right to obtain or disclose the data or information or, as the case may be, to procure the disclosure of the information to the other person;
- That in the particular circumstances the obtaining disclosing or procuring was justified as being in the public interest; or
- The person acted for special purposes with a view to the publication by a person of any journalistic, academic, artistic or literary material, and in the reasonable belief that in the particular circumstances the obtaining, disclosing, procuring or retaining was justified as being in the public interest.

NHSGGC:

Concern raised was whether NHSGGC would be held responsible for this type of data breach.

ICO response:

Provided controls are in place such as, training/awareness, fairwarning and unauthorised access processes are evident, the fact the offence is being committed by member of staff in spite of all these controls, then it is unlikely NHSGGC as data controller would be held to account. Essentially, so long as the data controller has exercised 'all due diligence' by putting in place appropriate policies and procedures as above, it would be considered to be a s170 offence.

Before thinking about the defences however, it is important to understand whether a data breach has actually occurred. For example:

- A doctor who has tried to raise concerns unsuccessfully about their patient's treatment internally may have felt they weren't being listened to and the only option left was to escalate it via the Whistleblowing Policy – this is appropriate under the Whistleblowing Policy and therefore provides a defence that this is not a data breach as **or**
- A member of staff who had no legitimate reason to access a patients records, does so and then uses the information unlawfully – is unlikely to carry the same level of defence and is likely to be a s170 offence.

Greater Glasgow and Clyde NHS Board

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First Minister of Scotland

Humza Yousaf
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Date: 30th November 2021
Our Ref: EV/LLPA

Enquiries to: Elaine Vanhegan
Direct Line: [redacted]
E-mail: [redacted]

Dear First Minister and Cabinet Secretary

Queen Elizabeth University Hospital and Royal Hospital for Children

As NHS Greater Glasgow and Clyde clinicians and clinical leaders, we write to express our immense disappointment and frustration about the way in which our hospitals, our colleagues and the treatment of our patients is being portrayed in the press and the chamber of the Scottish Parliament.

Our highly specialist services care for, treat and support some of the most vulnerable adults, young people and children in the country. Our sole aim is to deliver high quality, person centred care to our patients and focus on what matters most to them; fundamental to this is the strong working relationship between our clinical teams and infection control teams to keep our patients safe.

We have been, and remain, fully committed to being completely open and transparent in all that we do and we are dismayed that the integrity of our staff has been repeatedly called into question. Do we always get everything right when we discuss issues with families? Perhaps not. Do we ever wilfully withhold information from them? Absolutely not.

We have grave concerns that the continued undermining nature of the current negative headlines will result in an erosion of trust between clinical staff and patients and their families. Indeed, we have already seen evidence of the impact this is having on individual patients and carers, with staff reporting that families are very anxious about the safety of their relative while in our care.

We are particularly disappointed that individual patients are being discussed in Parliament without the knowledge of the families concerned, causing untold distress to families already grieving the loss of their loved one.

This unfounded criticism of our clinical teams and staff as well as the safety of our hospitals, is also hugely detrimental to staff morale at a time when so much is being asked of them. Our staff across NHS Greater Glasgow and Clyde, including the Queen Elizabeth University Hospital campus, provide professional, dedicated care to their patients and as we prepare for a challenging winter, this sustained criticism of our staff is undoubtedly causing them distress and worry.

We are proud of all of our teams, many of which include leading specialists, but we fear that such negativity will have an enormous impact on our ability to recruit and retain such skilled individuals in the future as well as those of wider clinical, nursing and support staff. We will always treat our patients with integrity, dignity, respect and honesty and this should never be in doubt.

We accept that there will always be improvements we can make and learning we can implement, but at the heart of all that we do is the commitment from every clinician working within NHS Greater Glasgow and Clyde to provide the best quality of care for all of our patients and to be open and honest with them and their loved ones about their diagnosis and treatment. Anything less would undermine the professional code of practice each of us sign up to at the start of our careers and adhere to throughout.

Yours sincerely

Dr Jennifer Armstrong, Medical Director
Dr Margaret McGuire, Nurse Director
Dr Scott Davidson, Deputy Medical Director (Acute)
Angela O'Neill, Deputy Nurse Director (Acute)
Dr Chris Deighan, Deputy Medical Director (Corporate)
Dr Kerri Neylon, Deputy Medical Director, Primary Care
Mr Wesley Stuart, Chief of Medicine, South Sector
Dr Claire Harrow, Chief of Medicine, Clyde Sector
Ann-Marie Selby, Interim Associate Chief Nurse Clyde Sector
Professor Colin McKay, Chief of Medicine, North Sector
John Carson, Chief Nurse, North Sector
Professor Alistair Leanord, Chief of Medicine, Diagnostics
Dr Alan Mathers, Chief of Medicine, Women and Children's Services
Mandy Meechan, Interim Chief Nurse, Women and Children's (designate)
Patricia Friel, Interim Chief Nurse, Women and Children Services
Dr David Dodds, Chief of Medicine, Regional Services
Lorna Loudon, Interim Chief Nurse, Regional Services
Dr Martin Culshaw, Associate Medical Director, Mental Health
Gail Caldwell, Director of Pharmacy
Fiona Smith, AHP Director
Evelyn Frame, Chief Midwife
Margaret Connelly, Assistant Chief Nurse, Governance and Regulation
Lesley Rousselet, Chair, Area Clinical Forum

From: Bustillo, Sandra
Sent: 29 February 2024 11:58
To: Julia Normand
Subject: FW: TI and CP comments on statements

Julia

The further emails confirming that Angela was content with the review of the statements.

Sandra

Sandra Bustillo | Director of Communications and Public Engagement | NHS Greater Glasgow and Clyde
JB Russell House | Gartnavel Royal Hospital | 1055 Great Western Road, G12 0XH
t: [redacted] **m:** [redacted] **e:** [redacted] **web:** www.nhsggc.scot

From: Wallace, Angela [redacted]
Sent: Thursday, February 29, 2024 7:54 AM
To: Bustillo, Sandra [redacted]; Clark, Andrew [redacted]; Neilson, Jillian [redacted]
Subject: RE: TI and CP comments on statements

Thanks Sandra
I do recall this and happy to discuss and reflects that space for sure
Angela

From: Bustillo, Sandra [redacted]
Sent: Wednesday, February 28, 2024 5:24 PM
To: Clark, Andrew [redacted]; Neilson, Jillian [redacted]; Wallace, Angela [redacted]
Subject: FW: TI and CP comments on statements

Not sure if this was, or needs to be submitted too. Angela – this was your endorsement of the paper we set out reviewing the accuracy of our statements.

Sandra

Sandra Bustillo | Director of Communications and Public Engagement | NHS Greater Glasgow and Clyde
JB Russell House | Gartnavel Royal Hospital | 1055 Great Western Road, G12 0XH
t: [redacted] m: [redacted] e: [redacted] web: www.nhsggc.scot

From: Bustillo, Sandra
Sent: Friday, March 27, 2020 4:06 PM
To: 'WALLACE, Angela (NHS FORTH VALLEY)' [redacted]; White, Mark (DOF) [redacted]
Subject: RE: TI and CP comments on statements

Clearly it wouldn't be helpful to de-stabilise the current OD process and work underway. I had texted Jane to say I was finalising the response and she did say she would discuss further with me s perhaps when Mark has had a chance to review, I'll try to have a word with her and let her see our responses before then giving them to Marion.

Sandra

From: WALLACE, Angela (NHS FORTH VALLEY) [redacted]
Sent: 27 March 2020 15:59
To: Bustillo, Sandra [redacted]; White, Mark (DOF) [redacted]
Subject: [ExternaltoGGC]RE: TI and CP comments on statements

Hello Sandra and Mark
Thank you i think this looks very fair and clear. I don't have anything to add but i guess building on my comments that the work GGC has done in being able to respond to these questions to what extent T and C are aware of so much has changed?
I guess in support of these answers is how these are connected back to T and C.....Jane has commissioned OD process and this could play in or it could destabilise. Marion Bain did ask Jane that question re these Q's and janes view on how this is handled is key.
Hope this is helpful and makes sense.
Happy to discuss
Kindest
Angela

From: Bustillo, Sandra [redacted]
Sent: 26 March 2020 16:03
To: WALLACE, Angela (NHS FORTH VALLEY); White Mark (NHS GREATER GLASGOW & CLYDE)
Subject: TI and CP comments on statements

Can you both review and let me know if you suggest adding anything further?

Sandra

From: Bustillo, Sandra
Sent: 29 February 2024 11:47
To: Julia Normand
Cc: Neilson, Jillian; Stewart, Chloe
Subject: FW: Accuracy of IC statements
Attachments: TI and CP comments on statements.doc; Information for parents and families 17th Jan 6a.docx; 11. Notes of Cryptococcus IMT Expert 060619 final.doc; Crypot Hypothesis 1 briefing JAN 2020.doc

Julia

As discussed, here is the report and supporting documentation responding to the claims of inaccuracy of IC statements which was sent to Marion Bain in April 2020. Whether Dr Bain shared this in turn with other SG officials, the Cabinet Secretary or with Drs Peters and Inkster, is unknown. It was shared with Marion in her capacity as the Scottish Government appointed Director of Infection Prevention and Control with NHSGGC, and prior to her appointment as interim Deputy Chief Medical Officer for Scotland on 18 May 2020. I'll send a further email from Angela, confirming that she was satisfied with the earlier draft of the report.

Sandra

Sandra Bustillo | Director of Communications and Public Engagement | NHS Greater Glasgow and Clyde
JB Russell House | Gartnavel Royal Hospital | 1055 Great Western Road, G12 0XH
t: [redacted] **m:** [redacted] **e:** [redacted] **web:** www.nhsggc.scot

From: Bustillo, Sandra
Sent: Wednesday, April 29, 2020 2:48 PM
To: BAIN, Marion (NHS NATIONAL SERVICES SCOTLAND) [redacted]; 'WALLACE, Angela (NHS FORTH VALLEY)' [redacted]
Subject: Accuracy of IC statements

Dear Marion and Angela

Following a conversation with Jane today, please find enclosed the paper which sets out the areas of concerns from Drs Peters and Inkster, together with the original statement and the comments made following review by Angela, Mark White and me and drawing on factual information obtained from Tom's team.

Please let me know if I can assist further on this.

Best wishes

Sandra

QUERIES REGARDING ACCURACY OF INFORMATION RELEASED BY NHSGGC ON INFECTION CONTROL ISSUES

26 March 2020

Introduction

A number of concerns have been raised by Drs Peters and Inkster in relation to statements issued by NHS Greater Glasgow and Clyde on RHC infection control issues. The responses have been reviewed by Sandra Bustillo, Director of Communications and Public Engagement, Mark White, Director of Finance and Angela Wallace, Director of Nursing, NHS Forth Valley. The following paper sets out comments in response to the concerns. For ease the paper is laid out to show the initial statement, followed by the area of concern and the observations and comments from the further review.

1. Responses To Families' Questions

1: Is the ventilation and water system currently safe?

Yes, and we would seek to reassure all our patients and their families of this.

a. Ventilation
With regards to the ventilation, there was a concern regarding the number of air changes and the air pressure within rooms where patients who were immunocompromised (which can happen as a result of cancer treatment and other treatment) were being cared for.
An upgrade was carried out in four paediatric Bone Marrow Transplant isolation rooms in 2015. Ward 6A currently has portable HEPA filters (High Efficiency Particulate Air – a type of high quality air filter) in all patient rooms and the corridor, providing additional and ongoing air cleaning. We have not identified any link between infections and ventilation.
Our priority is patient safety and we are investing £2 million to upgrade the ventilation system in Wards 2A and B to provide optimal, state of the art facilities for all our young haemato-oncology patients. This is to ensure we are taking every possible measure to reduce the likelihood of infection for this group of patients, who have an increased risk due to their treatments. We very much hope this will reassure the patients and the families in our care how seriously we are taking these issues.

Dr Peters' comments:
There is a difference between saying ventilation is "safe" (what does that mean?) and "meeting standards required for the patient cohort housed in the accommodation" . This is an important differential as it is only by meeting the standards /requirements that one can be assured that reasonable preventative measures are in place. Deviations from this are hard to compensate for – eg lack of positive pressure means unfiltered air readily accesses the room and is breathed by the patient posing a risk of fungal infection particularly (including Cryptococcus if it is in the air). This has been verified by air sampling results during Dr Hood's investigations.
It is a simple matter of fact that the rooms in 6A do NOT meet requirements for protective airborne isolation which is the infection threat to neutropenic high risk patients. Note , the same was true of 2A as evidenced by the external engineer reports and the requirement for a huge amount of remedial work that is required . This statement on 6A rooms is based on:

1. *No positive pressure*
2. *3 Ach instead of 10*
3. *Chilled beams in situ*
4. *Air is not HEPA filtered at point of supply*

5. *Air sampling has repeatedly found fungal counts above that expected for this patient cohort as well as bacterial counts*

For this reason antifungal prophylaxis is the mainstay of risk mitigation at present.

Further review

The following information has been obtained from the Directorate of Estates and Facilities in response to the issues raised by Dr Peters.

The strain of Cryptococcus found in the patient that started the investigation has not been grown from the air. This was confirmed at the Cryptococcus advisory group, chaired by John Hood.

This ward is not designed to be a neutropenic facility. It was a clinical decision made by Infection Control to move to Ward 6A however the interpretation of safe would be that this ward is safer than that of an equivalent standard general ward within the QEUH Campus. This is backed up by notional positive pressure barriers from rooms to corridor, mobile HEPPA scrubbers deployed throughout the ward corridors and bedrooms and standalone H13 air scrubbers installed in all en-suites which has evidentially reduced particulate rates.

Ward 6A Entrance is -1pa to the lift hall with the doors closed, when the doors open the ward entrance becomes ambient.

Ward 6A Kitchen is -3 pa to the corridor with the door shut as it operationally should be and does not fluctuate regardless of external door orientation, this is supported and expected by the evidence that the pressure cascade in the kitchen is under more negative pressure than the rest of the ward.

The narrative for the existing pressure regime in ward 6A is as follows :

All patient rooms are notionally positive to the corridor

The kitchen is negative to the corridor

The ward entrance to corridor is ambient to notionally negative depending on the door orientation which is extremely variable due to the traffic of people.

In the question about the air sampling repeatedly finding fungal counts above that expected for this patient cohort as well as bacterial counts, the question has been asked of Dr Peters to provide a definition of standards and evidence of same.

1. Is the ventilation and water system currently safe?

Yes, and we would seek to reassure all our patients and their families of this.

b. Water
When the hospital first opened in 2015, there was no indication that there was a problem with the water in the RHC. We later had a spike in infections in 2018 (in ward 2A) and on testing the environment and water, we found organisms which can potentially cause infection in the water supply. To address this, we put extensive measures in place, including the installation of a water treatment system, as well as filters on water outlets. The water was then re-assessed by an independent authorising engineer, who described it as 'wholesome'. This means the water in both the RHC and QEUH is safe.

Dr Peters' comments:
Filters were put in place as a control measure due to a water supply that was contaminated. That is not made clear in the responses. The water that is describes as wholesome has high colony counts of Mycobacterium and fungi. This does not pose an issue to immune competent patients but certainly does for the cohort under discussion. At least one mycobacterial infection has clearly been linked to the hospital water by whole genome sequencing and my view is that it is not possible to state that the other 6A infections have no link to the hospital environment as has been stated in public statements, based on the epidemiology , environmental results and the nature of the organisms themselves. Teresa is best place to give a comprehensive review of the water risks.

Further review

There has been several communications and statements on the water supply. The statement makes clear that there were organisms found in the water supply and remedial actions were taken.

The extensive testing and current quality of the water has also been regularly communicated to various stakeholders.

4. There needs to be a check to ensure that the water from the showers drains away properly and doesn't leak back into the rooms

We are sorry this has caused concern, as the shower floors were designed so that water drains away appropriately. There are no problems with Ward 6A showers. If there ever was an issue with an individual shower (which was not a design issue), then this would be immediately reported to estates colleagues and the drainage issue would be fixed.

As part of the work underway in Ward 2A, we will be doing a refit of the en-suite bathrooms including floor and wall coverings, to ensure that this is not a subject of concern going forward. The work to refit the en-suite facilities will include a revised detail and new materials which should reduce the need for the same level of regular repair, and minimise disruption to day-to-day ward operations.

Dr Peters' comments:

There was a problem with leakage of water under the floor with extensive mould under the flooring due to a poorly designed seal and the rigidity of the flooring material used . This required significant remedial work and a decant from the ward earlier this year.

There was one incident in 4B of sewage effluent coming up a shower drain while a BMT patient was bathing . The patient went on to have an extremely rare environmental organism line infection.

Further review

We have previously publicised issues with showers in a communication to families dated 17 January 2019 (attached).

The answer provided to this question was framed on an understanding from the Chief Nurse of Paediatrics and Neonates of the issues which were concerning families on Ward 6A at the time.

On the Ward 4B issue, the reviewers have asked for further information from Dr Peters on the individual case discussed and the evidence of transmission.

8. The works in Ward 6A need to be investigated with details then provided on progress.

In Ward 6A we have completed a number of actions to improve environmental controls within the ward, including the use of mobile HEPA filters (see response to Question 1) and the imminent installation of fixed HEPA filters in the en-suite areas. We have also increased the cleaning and maintenance of the chilled beams, which regulate the daily air temperature within the rooms, and have committed to a cleaning programme every six weeks. This is significantly in excess of the annual cleaning regime recommended by the manufacturer, and we have put this in place to be extra thorough. The Chief Nurse and General Manager for Hospital Paediatrics regularly visit parents and patients within the ward, and would be pleased to answer any questions. We have also set up a closed Facebook page to ensure that the families of other haemato-oncology patients are also updated. If there are any other ways that families would find it helpful for us to communicate with them, we would welcome any suggestions that they would find beneficial.

Dr Peters' comments:
chilled beam cleaning is in place to prevent build up of dust and particulate matter and organisms on the chilled beams. The fact that this is required as frequently as 6 weekly is an indication of a faulty system. These chilled beams should not be used in the immune compromised setting . And even when they are used in other settings the design is such that if they are installed correctly they should only be required to be cleaned 6 monthly to yearly. It is a major question of concern that these chilled beams accumulate dust and particulate matter at such a rate as to require 6 weekly cleaning.

Further review

The Directorate of Estates and Facilities have supplied the following information.

On chilled beams, the guidance does not stipulate that they should not be in situ, SHTM 03-01 gives specific guidance on the use of the chilled beams within Hospital and goes on to encourage the benefits they may bring (Section 2.38, SHTM 03-01 Part A, 2014). With regards to the internal air condition control, SHTM 03-01 states that humidity controls are not required within general wards in hospital areas (Section 1.24) but also suggests an air handling unit cooling coil control strategy which should be used when close control of humidity is required of which has been implemented.

Guidance and legislation regarding the selection of active chilled beam HVAC system suitability for clinical environments will vary from country to country. Based on the Scottish Guidance (SHTM 03-01, 2014), it appears to be the case that Active Chilled beams are acceptable as the re-circulation is only present within the one space, and is not being transported across to different areas within the hospital as found in central plant re-circulation.

On the six week cleaning, the Directorate advises that guidance does state that service intervals are six monthly and that these have been shortened at the request of Infection Control.

30. Why was one of the kitchens on ward 6A shut recently – it was suggested this was down to fungus being found.

This particular staff kitchen was shut because a leak (not fungus) was noticed within the staff kitchen on 27th September 2019. The leak was as result of a faulty tap connector on a recently fitted tap. The leak has been repaired, and the kitchen is now in use again.

Dr Peters' comments:
Please find attached the SBAR I wrote* regarding the leak and the results that Fungus was grown from a sample of the wet material. This was not a staff kitchen in the sense that it was where patient special feeds were stored and drinks prepared for parents and children. Please see photos of the water damage.

The risk from ANY water ingress into a BMT area is fungal propagation and spore dispersal followed by infections as well as collection of water borne organisms. Therefore the assurance given is incorrect. For the kitchen to have been made functional again all the wet material would need to have been removed with strict HAISCRIBE process in place. Was this carried out?

Further review

In response this this issue, the Directorate of Facilities and Estates have confirmed that it would not be unexpected for fungus to be grown from a sample of wet material from the floor, given that it is a floor with regular footfall access by staff.

On the removal of the wet material, it has been confirmed that this was carried out with an HAISCRIBE process in place, as a standard SOP. In addition, no wall material was saturated, nor had any water permeated to the underside of the flooring. All surfaces were intact.

31. Are there sufficient infection prevention and control prevention measures in place?

Yes. NHSGGC have an infection prevention and control team, who provide strategic coordination and direction to ensure our programme of work reflects the National Infection prevention and control standards and requirements. We also have local infection prevention and control teams assigned to each sector of the Health Board, to provide local support, guidance, advice and action. For more information, please visit: https://www.nhsggc.org.uk/your-health/infection-prevention-and-control/ The current incident with Ward 6A is being investigated by an Incident Management Team (IMT), which, as described earlier, is a team of experts, including infection prevention and control nurses and doctors, clinical staff, estates and facilities teams and Health Protection Scotland, who are national experts in this field. One of the responsibilities of an IMT is to confirm that all infection prevention and control measures are being applied effectively and are sufficient. This has been closely scrutinised, and the IMT continues to meet regularly.

Dr Peters' comments:
There is no consideration given to the marked difference in opinions on the IMT or the fact that the chair of the IMT was replaced followed by her resignation linked to the way the IMT was handled. This is not an easy message to convey, however I think it is vital that there needs to be a level of acknowledgement regarding the fact that the main expert in infection control in the organisation had a view that was not taken on by the organisation, for this to be a truly transparent process.

Further review
This is an opinion held by Dr Peters. It would be highly unusual for NHSGGC to highlight internal differences of viewpoint.

2. Dr Peters and Dr Inkster have also queried a number of press statements issued as follows:

Media briefing 18 December 2019

In January 2019 two patients tested positive for mucoraceous mould, which is a type of fungi, found in clinical specimens. An Incident Management Team (IMT) met on Monday, January 21st and HIIAT assessed the incident as RED on 21st & 28th January 2019. It was subsequently assessed as GREEN on Friday, February 15th. One patient was colonised (not infected) and did not require treatment. This patient was discharged home. The second patient who was seriously ill with other health conditions sadly passed away and their death was reported to the Procurator Fiscal.

The Procurator Fiscal (PF) has concluded that the cause of death was infection with Influenza A & B. The PF also stated that mucoraceous mould, while present, did not contribute to the death and as such the PF also concluded that death was from natural causes and was likely unavoidable.
During the IMT investigations there was a number of areas inspected for sources of mould with nil found and validation results were satisfactory.

The hypothesis remains unclear and there were no further infection control investigations required at that time. If there had been an ongoing unidentified source we would have expected to see more patient cases.

Comments from Dr Peters and Inkster:

The feedback from Drs Inkster and Peters is that there was a history of water damage from an abnormally plumbed dialysis point, and subsequent reflux of mouldy bed pan material, and there was a documented debrief report which was presented at the Acute and Board Infection Control Committees at the time.

Their view is also that the prompt removal of the bed pan pulp likely explains why there were no more cases.

Further review

These questions were posed by a journalist following the issue of the media briefing and in response at the time, it was decided to publish the full de-brief of the IMT, chaired by Dr Inkster.

26th December

We today publish the seven findings from the Incident Management Team (IMT) into these cases, to demonstrate what action was taken. The IMT directed a number of actions to be taken and the details of the findings are as follows:

1) Air sampling of the ICUs was negative for mucoraceous moulds

2) Linen has been reported in previous outbreaks and therefore the linen process was reviewed. Staff were asked about a history of damp linen and linen was swabbed. Swabs were negative and there were no concerns noted regarding the laundering or linen transfer/storage processes

3) Review of tracheostomy sets, no issues found and it was noted that equipment is disposable

4) Other common equipment was explored and swabs of ultrasound equipment taken – these were negative

5) Equipment storage area checked for water ingress, no evidence of such

6) The dialysis point was explored. There was a history of a water leak on 4/1/19 and a repair on 6/1/19, 3 days before patient 1 was admitted to the room. The panel of the dialysis point was removed and inspected. Pulp type material was found, removed and sent to the lab for culture. The plumbing connection to a dirty utility space was raised as a concern and remedied. Results of swabs and culture of pulp revealed yeasts/mould but not mucoraceous moulds. Further exploration of the room was undertaken to look for mould which included checking flooring and sink panels. No evidence of water ingress or mould was found in these areas

7) Validation was undertaken of the room before putting it back into clinical use and the results were satisfactory.

27th December statement on [redacted]
A range of initial tests and actions were undertaken as part of the investigation. These included:
On [redacted]17 the Infection Control Doctor leading the investigations requested lab testing of water samples from RHC Isolates were sent for typing to a specialist lab in England,
On [redacted]17 when the typing came back as different, the investigation was stood down
In response to the Infection Control Doctor's requests, the laboratory developed testing capability for Stenotrophomonas. The water was tested in September 2017 with all samples being negative for Stenotrophomanas. However as water testing was not routinely undertaken in July, it is not possible to be completely certain that it was not present at the time. NHSGGC Board received a report on the matter in October 2017
Testing for this specific organism had not been carried out before and, as we have already confirmed, is not part of routine ongoing water surveillance in NHSScotland.
However, as the source of the Stenotrophomonas had not been found, the infection control doctor asked the specialist laboratory if it would be possible to set up a test for Stenotrophomonas. The laboratory established the processes and QA methodologies to carry out the tests and tested 117 samples between 4 September and 14 September. All were negative for Stenotrophomonas.

Dr Peters and Inkster comments:

The two microbiologists have expressed concerns about the preceding statement, in particular the stated time taken to develop a test. Drs Inkster and Peters indicated that it did not take 6 weeks to develop a test for Stenotrophomonas. They said that there had been testing for this organism before this time with it being isolated from water (and documented) in 2016 along with some rarer gram negative organisms.

Further review
The statements from NHSGGC have not said that the tests took six weeks to set up. The GRI laboratory has confirmed that the request was received from the Infection Control Doctor by the laboratory on 1 August and the water samples were taken from 4-14 September. According to the laboratory, the interval between the request and the actual sampling was related to external factors, primarily the time to instruct the contractor to obtain the samples.

Statement on HSE notice – 27th December

As part of our ongoing commitment to providing a safe environment for our patients and staff, we have been working with the Health and Safety Executive (HSE) over the past few months to look at governance and processes relating to the Queen Elizabeth University Hospital and the Royal Hospital for Children on areas highlighted in the March 2019 Healthcare Improvement Scotland Report.
On 24th December our Chief Executive received notification from the HSE that they were serving an Improvement Notice in relation to Ward 4C as part of these investigations.
In the interests of openness and transparency and building public confidence in NHSGGC, we are today publishing the Improvement Notice on our website.
This notice requires us to carry out a verification of the ventilation system for Ward 4C.
Ward 4C is a renal transplant/haemato-oncology ward and neither of the groups of patients cared for in this ward require specialist ventilation.
Any 'at risk' haemato-oncology patients are cared for in Ward 4B which is a fully HEPA-filtered ward.
We have also confirmed with other UK centres who care for renal transplant patients they similarly treat these patients in a general ward environment.

As an additional precaution, however, to further safeguard our patients, we installed mobile HEPA filters in Ward 4C in January 2019 as part of our control measures when we were investigating infections at that time.

Under Scottish health technical memoranda, general wards do not require to undergo the critical system verification that has been required in the Ward 4C Improvement Notice.

In view of this, and the additional safeguards that we have already implemented, we have asked for an early meeting with HSE to discuss the content of the Improvement Notice in more detail.

This meeting will take place in the first week in January.

Jane Grant, Chief Executive, said: "We are sorry for the distress that patients and their families have experienced by the current issues and want to assure them and the public that we are working with the Scottish Government to do everything necessary to remedy the situation.

"I also want to thank our staff for the commitment and professionalism they have demonstrated throughout this time, ensuring that our patients continue to receive the safe, high quality healthcare they deserve.

"Patients who require specialist ventilation are cared for in Ward 4B which is a fully HEPA-filtered ward. As a further precaution we introduced mobile HEPA filters in Ward 4C in January as part of our control measures when we were investigating infections at that time.

"We welcome the opportunity to discuss these actions with the Health and Safety Executive when we meet them in the New Year."

Concerns re 4C

I raised concerns regarding 4C in December last year **before** I was aware of the Cryptococcal case in the ward, in response to the engineering report we had from ward 2A/B.

The email below from the lead haematology clinician confirms that high risk haematology patients are housed in this ward.

Ward 4C was escalated along with other ventilation issues to the ICM and HAI exec lead (emails attached) Subsequently I wrote an SBAR which was sent to the specialist ventilation group and the Facilites Director (attached). You will note from the minutes (item 7) that members of the group endorsed the SBAR.

These patients were originally due to be placed in ward 4B, John Hood devised the specification . They were moved to a general medical ward following the late decision to move BMT patients across from the BOC into ward 4B.

The response from GGC is not making any sense to me . The same haematology patient population in the north of the city is housed in a fully HEPA filtered ward (B7, BOC) We also plan to upgrade ward 2a housing the paediatric equivalent haematology patients . The SHTM is very clear on the requirements for neutropenic rooms

Also worth noting that ward 4B is not fully HEPA filtered as stated in the media response. Only the rooms are. The corridor and other spaces are not ,hence why we have had to implement a door closing policy. This was a risk highlighted by the HPS SBAR and microbiologists at the time of the upgrade in 2017. Air quality results from regular monitoring reflect this .

Teresa Inkster

+ SBAR

I agree that the GGC statements as reported in the press (and therefore may not be complete) do not reflect my understanding of the 4C /4 B set up.

In 2017 I raised the issue of 4b not being entirely HEPA filtered and concerns regarding the likely limited outcomes of the proposed remedial works to that ward. I understand that recent air sampling results and assessment of the ventilation concurs with this view . I also raised repeatedly the need for a patient placement policy that matched clinical risk to accomodation provision in relation to all immune compromised patients in agreement with your attached emails.

It is also worth noting that 4C is not a general ward that meets SHTM standards on ventilation for general wards as Air change rates are 3 rather than 6. Further more chilled beams are in situ as noted in the minutes you attached . This does not seem appropriate for the patient groups described.

Christine Peters

Further Review

The rooms and the prep room are HEPA filtered but it is correct to state that the corridors are not. Whilst the air flow to the corridors is from the HEPA filtered individual rooms, with hindsight, it would have been more accurate to state that all the rooms and the prep room are HEPA-filtered.

The GGC statement 19 January regarding Cryptococcus– Dr Peters email to Dr Bain of 20 January is attached

To date this expert panel has identified:
Who is on the expert panel ? I fail to understand how the membership are considered not to have conflict of interest when Teresa and myself have been barred from involvement due to conflict of interest and possibility of influencing outcome. In fact we are the least conflicted as we had no part in the design or sign off of the building and proposed a number of hypothesis from the outset. We also were present and involved at the time of the cases.

- *As Cryptococcal fungi are widespread naturally occurring in the environment, a specific source has not been found*
- *Cryptococcus neoformans (not var Gatti which is different) is considered a zooinosis linked to birds, particularly pigeons and specifically pigeon guano.*

D espite extensive testing of the hospital environment, we have found no evidence of Cryptococcus neoformans in or around the hospital
Cryptococcus neoformans is fairly diffiuclt to isolate from environmental samples, particularly air sampling. the vast majority of samples were taken post clearance of the plant room .Even in areas of high levels o f cryptococcosis such as Iran, the percentage of positive cultures of hundreds of pigeon faeces samples is as low as 2.5% . this does not undermine the already well established link of pigeon guango and clinical cases. Of note there are CDC BMT guidelines that specify the need to ensure no pigeon nesting near units housing immune compromised patients.

If cryptococcus is widespread in the environment does this lack of isolation mean that it is infact NOT widespread in and around QEUH ? Which is it? Either it is and the testing is immaterial and not

worth quoting, or the testing proves that it is not widespread. This is an inconsistency that many have pointed out to me since the public statement was made.

- *The plant room – initially thought to be the source – has been ruled out*
- *the plant room was found to be infested with pigeons and contaminated with faeces at the time that patients contracted cryptococcus neoformans , this was the obvious main hypothesis for a source. However a number of hypotheses were considered even at the outset as my report from the time illustrates . Perhaps robust and conclusive evidence exists that justifies this very strong claim .to say that a more likely hypothesis has been found would be interesting and valid if evidence exists, but "ruled out" suggestes extremely strong empirical evidence which I have to say has not even been hinted at in any of our conversations. Any future scrutiny would require overwhelming empirical evidence to support such a strong statement in the context of the epidemiological evidence.*

- *There have been no further cases since last year.*

The key measure put in place was the rapid cleaning up of the pigeon mess in the plant room and pest control activities. No cases since then strongly supports the plant room hypothesis, The case mix is the same, prophylaxis the same, accomodation the same and if C neoformans is all around all the time , one would expect more cases both prior to the incident and since given the numbers of patients treated.

This panel continues to meet and their full report will be published in due course.
***On harm to human health** –*
Our public health team with special responsibility for environmental concerns has confirmed that the risk to healthy humans from pigeons is low.
For those who are vulnerable to infection from environmental bacteria or fungi because of their illness or treatment, NHSGGC have clinical protocols to protect them from infection – including the option to place patients in facilities with specialist ventilation and treatment with a range of prophylaxis antibiotics and antifungals.

the specialist facilities referred to are not sufficient to protect against air borne cryptococcus or other fungi and its disappointing to see such a suggestion in the public domain in light of the HSE improvement notice on 4C , the reality of the 6A accomodation and the 4B air sampling results and air movements as described by John Hood.

In conclusion I find the statement highly uncomfortable, bordering on the embarrassing to read and believe that it will not stand the test of time.

Christine Peters

One of the issues I am particularly concerned about it is the governance in relation to the Cryptococcal advisory group. This group was established as a subgroup of the Cryptococcal IMT and the report commissioned by myself as the chair of that IMT.

I am aware that parts of the report have been discussed at board meetings and submitted to HSE. This is failed governance as the report should come back to the IMT for comment and discussion before being disseminated elsewhere. Also it is misleading to submit sections of an incomplete report to external agencies without the full picture, particularly when it does not make reference to epidemiology

It would be useful for me as the Chair of the IMT to have an estimated date of report completion as this work has now gone on for a year.

I would also like to point out that this group is not independent, several members of the Crypto IMT sit on this group.

Teresa Inkster

Further review

The governance of the Cryptococcus advisory group was not discussed in public statements. The timescales for completion of the full report are a matter for the advisory group.

Whilst there are several members of the group who sat on the IMT, there are also independent advisors including the chair of the group, Dr John Hood.

We have attached a minute from this group confirming their conclusions that the plant room hypothesis was infeasible (6 June 2019).

Also attached is a second document, dated January 2020, which relates to hypothesis 1,

> ***Cryptococcus neoformans* Expert Advisory Group**
> **A brief of the initial hypothesis, associated investigations and resulting conclusions**

The summary of this states: "The foregoing evidence therefore does not support the hypothesis that the air from the plant rooms, via the AHUs, was the likely source of the cryptococcal spores, specifically those of *C. neoformans,* which were then breathed in by the case patients."

Finally, it should be noted that it has also since been recorded at the February 2020 Board meeting that the hypothesis of the plant room is highly unlikely.

Information for Parents and Families

Following the information which we handed out on Sunday, we thought it would be helpful to update you on progress. It remains our priority to ensure a safe environment for the children and young people during the period of extended transfer to ward 6A from ward 2A/B.

We are continuing to monitor closely the air quality of the unit following two isolated cases of an unusual fungal infection within the QEUH site detected in December.

We have completed the installation of portable HEPA filter units to the ward. These HEPA machines filter the air continuously to give us extra reassurance for this vulnerable group of young patients. As a precautionary measure patients continue to receive prophylactic anti fungal medicine to provide protection from fungal infection. These control measures were taken at the time and there have been no further cases identified.

Following the deployment of portable HEPA filter units, we have seen a reduction in air particle counts, however not to the level anticipated. Given this result and following further investigation we identified an issue with sealant coming away from the wall in some of the shower rooms, this can lead to dampness. Our maintenance team are working hard to remedy this issue. In order to complete this remedial work patients will be moved within the ward, we apologise for the disruption this will cause.

As an additional precaution we have identified patients which due to their clinical diagnosis and ongoing treatment will be moved out with the ward.

Please let a member of our clinical staff know if you wish to discuss anything further and we will arrange this with a member of senior medical, nursing and infection control teams.

Cryptococcus IMT Expert Advisory Sub-Group

Notes of Meeting held in Meeting Room 1
Old Central Medical Building (CMB), Queen Elizabeth University Hospital

Wednesday 6 June 2019 at 2.00pm Draft 1h + PH (? Final)

Present: Dr John Hood (chair), Ian Powrie, Sandra Devine, Colin Purdon, Pauline Hamilton (minutes)

Teleconference: Althea de Souza (CFD Consultant) – Item 2 (Presentation), Annette Rankin, Peter Hoffman (until 3.00pm)

Apologies: Tom Steele, Ian Storrar, Darryl Conner, Eddie McLaughlan

Item	Action

1. Welcome and Introductions

Dr Hood welcomed everyone to today's meeting and teleconference introductions were made. Apologies were received from the abovementioned.

2. Computational Fluid Dynamics (CFD) Model (Presentation) – Althea de Souza

Author, Althea de Souza provided a teleconference presentation on the Computational Fluid Dynamics (CFD) Simulations of Airflow around Roof-Level Ventilation Ducts model, distributed to the group.

Please see amended report of 14th June 2019. (added in draft by JH)

Althea described the simulation model of external wind impact on ventilation systems and explained this computer-based model used data from the hospital, and that this computer process requires data for input with everything defined explicitly.

The wind strengths and directions were taken from the WSP Energy Ltd report from 2010 and 2011. Althea explained the isotherm dynamic and that the prevailing wind is from the SW and the average is 18 metres per second (m/s) from the SW. The second most frequent wind direction is from ENE and is less strong (max average of 9 m/s). In terms of the helicopter, the effects have been captured as a momentum source to simulate the rotors. Metres per second have been used throughout.

Althea concluded that 'in the CFD simulations undertaken, they demonstrate that the air arriving at the AHU intake locations does not originate in the region beneath the helipad, for any of the scenarios considered.' As a result of this conclusion, 'it is therefore *unlikely* that debris from the helipad area is being carried into the hospital ventilation system (s) and so anything drawn into the AHUs *intakes* is coming from the wider environment' and not affected by the shape of the building or the presence of a helicopter. 'Whilst it is not possible to determine how far away potential contamination will originate, it should be noted that anything carried in the flow will be lightweight, since heavier matter will fall out due to gravity.' (See page 40 of report, 5. Conclusions)

Discussion and questions followed.

Item	Action

John Hood asked if this included the air intakes for 4B (4B supplied by an AHU on Low Level 3). Althea reported that the air intake is between Core-B and Core-C on podium Level 3, and there is an intake there in the lightwell and it draws its air from there. Althea referred to slide 38 (bottom right-hand side shows the air intake), the secondary wind direction showing airflow path to Tower D. Althea will consider this, and will go back into the specific model, between Cores B and C. Ian Powrie advised that those two lightwells are in the South elevation (intakes for 4B).

Ian Powrie asked if it would be possible to include this area in the CFD report and amend the report accordingly.

Peter Hoffman asked if there are louvers on the Plant rooms. Althea explained there are louvers but are angled, dropping vertically, so that nothing can fall into the vents. Ian Powrie confirmed there are louvers on the external of the building. The AHU is attached to the louvers with a plenum. Peter Hoffman further asked about louvers, not the AHU, if the downflow from the helipad could push the air down into the Plant rooms. Ian Powrie stated this was not impossible but is unlikely because the louvers are fitted with sealed insulation boards. Peter Hoffman stated that it would therefore be difficult for air to get into the Plant rooms by this route. Ian Powrie stated that the only issue would be if any of the insulation panels were damaged or dislodged or if there was any movement.

Ian Powrie thanked Althea for her time and effort for this piece of interesting work. Althea will provide the amended report probably by tomorrow morning (07/06/19). Ian Powrie will touch base with Tom Steele about the entrance to the Adult Hospital. **IP (AdS)**

There was some discussion after the presentation and Peter Hoffman stated it is unlikely to have been a build-up of aerosolisable material (e.g. pigeon faeces, added by JH in draft) as it would be regularly scoured by the helicopter. Ian Powrie added the area is now cleaned every two weeks as aerosolisable material was being stuck and this is why this report was prepared.

3. Minutes of Meeting – 22 May 2019

John Hood referred to the minutes of 10/04/19 and reported that Ian Powrie has sent the form of words to be included in response to Darryl Conner's assessment of the cylinder room. John Hood has updated the minutes accordingly and will forward to Pauline Hamilton for distribution to the group. **JH**

The minutes of the last meeting held on 22 May 2019 were distributed with the agenda. The minutes were accepted with the following amendments:

Page 2: 5th last para: should read "… that these **IPS** panels are sealed …"
Page 3: 2nd last para: should read "… sampling results **from Ward 6A** but …"
Page 5: AOCB: should read "… Dr Inkster's **incident** management team …"

Actions Update (from 22/05/19):

Page 2: 5th para from bottom: Ian Powrie will discuss IPS panels being sealed with Darryl Conner as some of the underside of WHBs panels were not done. Colin Purdon will check this, and all will be re-checked. Ian Powrie will check Ward 6A, Room 5. **IP CP**

Item	Action

- **Page 3: para 2:** Ian Powrie reported today in relation to the inspection of Level 4 risers and Level 3 Plant Room to ensure these risers are sealed and that they have been sealed with intumescent fibre board. IP verified that Wards 4C and 4B were already done. Ward 4A was checked in relation to the Ward 6A open riser. Ian Powrie will check further and add in anything required. **IP**

- **Page 3: paras 3-6:** Ward 4B and negative pressure will be discussed later in the meeting.

4. Update on Air Testing

John Hood confirmed that since the last meeting (22/05/19), there has been isolation of Cryptococcus spp. from four air samples:

- 14 May: Room 73 in Ward 4C - presumptive *C. albidus*
- 15 May: sample from Ward 6A electrical risers *C. uniguttulatus*
- 15 May: one in Ward 4B corridor (the corridor near rooms in 70's) presumptive *C. albidus*
- 21 May: Room 1 in Ward 6A presumptive *C. albidus*

This is the *First* isolation of any cryptococcus in Ward 4B ever.
The presumptive isolation of *C. albidus* from Room 1 in Ward 6A will be discussed as part of a potential cluster (of positive air samples) around one of the Mechanical Risers (CA-006).

- Testing was done when checking Ward 4C risers on 25/05/19. Electrical riser 178. There were 4 colony forming units (cfu) of fungi and movement of air from the riser into the corridor (0.1 to 0.2 Pa) via a leak on the door on the top right-hand side which needs to be sealed. Colin Purdon will take this forward. Ian Powrie asked that the focus is on the door sealing particularly where the metal door seals into the frame. Gaps were identified at the hinge-corner which appear to be passing air slightly at this point - so these may need gaskets fitted. **CP**

- Mechanical riser 212 in Ward 4C on 25/05/19. There were 9 cfu fungi and a couple of yeasts. The riser was stopped from below but not from above. The horizontal penetrations looked good. The actual air movement from the corridor into the riser was at about +18 Pascals (Pa).

- Mechanical riser 223 which is 'stopped' at level 3 plant room but open from above. There were 15/16 Pa of air going into this riser from the corridor and also evidence of smoke going into this riser because there was not good enough seal on the top right-hand vertical/corner of the door. Colin Purdon will take this forward. **CP**

- Ward 4C electrical riser 220 is much the same as the others, i.e. sealed from below but not from above. There were 0.2 Pa from the corridor into the riser.

There is concern about the differences in the pressures in 4C Rooms 66-75. Rooms 66 to 74 are between 0.4 to 2.9 Pa from rooms to corridor but Room 75, at the end of the corridor is consistently negative at -0.3 (i.e. air moving from corridor to room). Colin Purdon agreed to make adjustments to the room to make slightly positive. **CP**

Item	Action
Sandra asked if the pressure was intentional when the upgrade was done in Ward 4C. Ian Powrie stated that the rooms were reversed to be slightly positive. John Hood explained that when the corridor door (out of 4C) is open there is then positive pressure in Room 75, and if corridor door is shut, it pushes air into the room from the corridor. This is a problem. Drawings were referred to and reference was made to positive pressure rooms in the Old BMTU at GRI where there was so much air in the corridor that the rooms nearest the Entrance doors (which were usually closed) had air pushing into them (rather than out) as the air had essentially nowhere else to go. The discussion then moved on to the more worrying issue of Ward 4B and the intermittent negatively pressurising of the corridor around the Rooms in the 70's. Ian Powrie described how the positive pressure in 4B corridor can reverse to negative when the doors (In/Out of 4C) are opened. This seems to act intermittently as at times the positive pressure in 4B corridor is sufficiently high not to go negative (added in Draft by JH). IP also noted (added in draft) that 4B corridor has extract but no supply whereas 4C corridor has supply but no extract. It was agreed that these issues need to be rectified. Ian Powrie suggested creating a lobby, and making this lobby negative compared to both ward corridors, so that the air pushes out into a negative environment. Also important to have interlocking doors so that the other doors cannot be simultaneously opened when any one door is open. It was suggested that in the review of Ward 4C design that the same principles will be applied as in new design for Ward 2A, i.e. HEPA filtered air and duplex AHUs to add resilience. This will need consideration by another group to take forward. Ian Powrie offered to set up a meeting with the BMT management clinicians and will include Teresa Inkster. Sandra stated that the Medical Director has intimidated that a new plan would need to go through Capital Planning, but agreed to take advice around this and update Ian Powrie.	**IP** **SD**
• Colin Purdon confirmed the external door from the Drs Office) to the roof was fixed on 29/05/19, and on 01/06/19 the double-door - leading from the Corridor in 4B to the area opposite to the entrance to 4C was done. Ian Powrie wondered if a sign could be put on the door "need permit to access" for the roof area as the room should be for plant room access only. Colin Purdon will take this forward.	**CP**
• Risers in Ward 6A have already been minuted in terms of the fact there are at least two 'rooms' containing risers that have positive pressure to the corridor that need to be sealed. Ian Powrie stated that two are putting air out into the corridor, i.e. CA-006/T1 and GENW1-082/T11. There is also a cluster of 4 cryptococcal isolates near the first riser (CA-006/T1), going into the ward itself, which we know to be pushing air out at 3 Pa into the corridor. Colin Purdon agreed to mastic seal these doors in that ward as a priority, and will also check if there is a gasket on the metal door.	**CP**
• Wards 4C, 6A and 4B risers will be re-checked, and the floors and ceilings will be sealed if required. Colin Purdon asked where the pressure is coming from and Ian Powrie explained that the floors were checked in Ward 4C and were all intact (i.e. sealed both above and below). In 6A Riser W1 085 had 61 cfu of fungi growing, but also a presumptive *Cryptococcus uniguttulatus*. There are no obvious gaps. Ian Powrie has a meeting scheduled next week for the HPV with Sanondaf to look at the tank rooms. So this may also be an option if these (rooms/risers) are sealed - they could also be electrostatically HPV sprayed. An HAI-SCRIBE would be required for this. Comment in draft by Peter H – HPV likely to be of little benefit as this treatment would be aimed at disinfecting surfaces and would not affect aerosolised particles that would subsequently enter these risers or rooms. JH Comment on Comment – HPV may be useful if fungi thought to be growing in these riser/rooms, e.g. due to water damage. Colin Purdon stated this work would be challenging and added it would not be possible to have the rooms sealed off by next week. Ian Powrie asked if this could be done in the future once the rooms are sealed. John Hood referred to the biggest concern, (noted above) the mechanical riser (CA6-006) in 6A which has no fungi growing in it but is pressurised to the corridor. Colin Purdon will arrange to have this door sealed first (ceiling and floor will be sealed also), and to carry out sanitisation.	**CP**

Item	Action
• Update on organisms grown from Ward 4B risers. Essentially they are in a variety of mechanical and electrical risers with small numbers of fungi (Penicillium, Cladosporium and occasional Aspergillus. Ian Powrie referred to staff using toilets in Wards 4B, 4C and 6A, who are not closing the doors but leaving them left open. Sandra will take this forward as an action to ensure staff close doors.	**SD**
5. Actions from 22 May 2019 Meeting Actions from 22/05/19 were updated during the meeting and noted in the minutes.	
6. <u>Further Actions Required</u>	
1. 06/06/19 – Action ongoing: *<u>Carry Forward</u>* - Estates are awaiting a structural engineer's report to see if a suitable alternative can be found for the garden roof on Level 4. Tom Steele updated that he discussed this with Multiplex. He said that the green roof was part of the design and the sedum can be removed and an alternative ballast material installed. He said if we were to move the items from the roof we could cause further disturbance? John Hood said he would be concerned if *Haemato-oncology* patients were to go on to this roof but he was informed there is no access to it for these patients. Tom Steele said that he is of the opinion to maybe review this in the future but to leave it as is at the moment.	**TS**
2. 06/06/19 - Action Update: On inspection above the ceiling of Room 5 in Ward 6A showed that the services coming into the space were well sealed and in good condition. The flexible duct to the chilled beam was found to be intact. Subsequently (on 3rd June), a problem with the chilled beams was identified and Ian Powrie explained this was a mechanical joint failure causing a water leak. On this occasion it was a change in temperature that had caused the fittings to contract and hence create the leak. Colin Purdon added this was reported as a series of drips and - although not the remit of this group - it is being mentioned due to the mechanical failure. Colin Purdon has met with Teresa Inkster and Christine Peters. The ceiling tiles damaged with water were replaced, and Actichlor was used to wash down. All appropriate IPC measures have been taken (Ward 6A (adults) - x8 rooms).	**JH / DC / IP**
3. 06/06/19 – Action ongoing: Continue to carry out air sampling in Wards 6A, 4B and 4C.	**JH**
4. 06/06/19 – Action ongoing: Ian Powrie reported that fluid dynamics modelling around the helipad/QEUH/RHC report has been done with a caveat checking level 3 fluid dynamics. See report.	**IP**
5. 06/06/19 – Action closed: Item in relation to Pest Control removed.	
6. 06/06/19 – Action ongoing: Ian Powrie updated that currently working on a programme to remove the Ceiling Vent Grilles (CVG's), and that CVGs still need to be removed from Ward 6C and 6B. Colin Purdon confirmed HAI-SCRIBE is required. The programme will also include removal of CVGs in all clinical wards. A response is awaited from Ian Storrar in relation to HFS and the authorised engineer agreement that CVG vents are no longer required.	**IS**

Item	Action
7. 06/06/19 – Action ongoing: Sandra reported that discussion is still to take place with Teresa Inkster and possibly Myra Campbell, CSM, in relation to self-closers on doors in Ward 4B, and IPC making sure that staff understand the importance of keeping doors to patient rooms closed and also keeping doors to ancillary areas closed as much as possible. Colin Purdon has discussed self-closers on doors with local Fire Safety Advisors and reported there would be no issues with this proposal. It was noted that discussion with the clinical teams would need to be held in relation to beds being taken out etc. Colin Purdon does not believe that all of the rooms have 30-minute doors fitted at present, only those near to fire escapes.	**SD** **CP**
8. 06/06/19 – Action ongoing: Colin Purdon has forwarded the report put together by the flooring contractor and reported that Ward 6A has some minor issues to be rectified. Colin will re-send the report to the group. Colin also agreed to prepare an action plan as required to address the issues identified.	**CP**
9. 06/06/19 – Action closed: Sandra confirmed IPC has investigated laundry storage and process. This action to be removed from the group's remit.	
10. 06/06/19 – Action ongoing: It was confirmed that the engineering risers have been inspected however will be kept as ongoing until completion of the doors of these risers are sealed. Ian Powrie asked Colin Purdon to arrange to have the doors sealed over the next three weeks (by 27/06/19).	**CP**
11. 06/06/19 – Action closed: It was confirmed that final inspection of Ward 6A Room 5 has taken place. Action completed.	
12. 06/06/19 – Action closed: It was agreed and noted that overall ventilation design for Ward 2A is another forum therefore has been removed as an action for this group.	
13. 06/06/19 – Action carried forward: Wards 6A and 4C IPS panels to be sealed with silicone by 24/05/19. Colin Purdon agreed today to have the bottom of all the panels re-checked.	**CP**
7. AOCB	
A. Hypotheses	
John Hood provided a brief overview of the hypotheses.	
JH has now added to this in DRAFT (on 20th and 26th June) below:	
1. The plant rooms on Level 12 were the source, i.e. spores from the plant room environment itself gained entry into the AHU's this would have had to have been when they were shut down and the doors open for a filter change – essentially a final filter change, in order to allow spores access to the duct without the presence of the F7 filter. The theory being that spores would enter the AHU either in the air from the plant room or on the feet of the Estates staff. This was felt to be a possibility early on (21 December 2018) as the initial Plant Room air samples had 8 of 32 samples positive for what was then believed to be *C. albidus* (taken as a surrogate for *C. neoformans*). There was also evidence from 5th December of pigeon ingress and significant fouling in the plant rooms serving area D. This seems to have been dealt with in the following weeks by Pest Control by cleaning and pigeon control (see their documentation). Note that the area of pigeon fouling in D was described as 'wet' therefore likely little aerosolisation of cryptococcal spores would have occurred.	

Item	Action

The Plant rooms in D were not tested early on (PR123). Plant rooms 121 (B), 122 (A) and 124 (C) were. Essentially as A and C served 6A and 4C where the patients had been.

Reasons why this hypothesis is most unlikely

Firstly, the original hypothesis was that specifically Plant Rooms 122A and 124C (patient cases in 4C and 6A) were both implicated but not the others on Level 12 nor on Level 3 QEUH nor those in RHC.

However fairly quickly air in rooms served from a variety of AHU's on Level 12 (AHUs serving D), Level 3 (1C) and RHC (PICU) grew Cryptococcus spp. Recently we have also grown *Cryptococcus* species in the air samples from areas within the Laboratory Block which are supplied from AHUs in Plant rooms completely separate from the hospitals. The suggestion being that this is good evidence that there is ongoing general contamination of the air with *Cryptococcal* species which is not related to pigeon faecal contamination of Plant rooms.

Secondly, we have continued to grow *Cryptococcal* species since, in 6A and 4C, despite routine inspection and cleaning of all the Plant rooms (including those serving 4C and 6A).

We have now had about 60 isolations. Only one of those originated from the HEPA filtered, positive pressurised rooms in 4B (BMTU). This was from the Corridor only and we have never had a positive from a patient room. We can also explain why this (the positive) has happened - by ingress of air from the bottom of the corridor (which at times can be negatively pressurised to the area outside 4B). See discussion above in para 1 of page 4 of this Minute.

Therefore so far our sampling itself shows that the cryptococci are most likely to be coming in via the outside air itself – not from the Plant rooms and that the HEPA filtration/ positively pressurised rooms are clearly protective whereas those areas served by F7 filtration, alone, are not.

The crucial evidence that the plant rooms themselves are NOT the source, is that the hypothesis requires the opening of the AHU during a change of the Final filter. This requires the AHU to be shut down.

Estates log AHU shut downs and why - and then document it. I have looked at the logs for each of the AHUs and when they were shut down and opened for, e.g. a Final filter change (or even a panel filter change) and mapped this shut down to the time each patient case was present in the various Wards they were in, i.e. 2A (RHC), 6A, PICU (child) and 4C (adult). **No shut downs occurred during any case patient stay in the above wards.**

Further, part of the hypothesis was that at the time the AHU door was opened (post fan) the belief was that air from the Plant room was likely to be dragged into the AHU, after the Final filter was removed – and therefore spores would go down the duct without the filter present. I witnessed on several occasions this scenario when the change of F7 final filters occurred. Exactly the opposite takes place with a **clear movement of air out of the duct not a pulling of air into it.** This is due to thermal currents in the duct itself.

Therefore the Plant rooms on Level 12 are an unfeasible source of the cryptococcal spores.

Item	Action

2. **Cryptococci present in the outside air (via the air intakes) was the source.** This air then went through the AHU's **but the filtration was not of HEPA standard** (as in 4B, BMTU), i.e.it was of **F7 standard**. HEPA filters have both much superior filtration of the air and much better 'fit'* than F7s (a substantially lower grade filter – PH). In other words a probable significant proportion of fungal/cryptococcal spores will pass through those F7 filters. F7 filters also may bypass around the cassette/duct* interface and allow spores through, unlike well-fitting HEPAs. **This is also confirmed by the increased number of cfu of fungi (e.g. *Aspergillus* spp. grown from air sampling in 6A and 4C compared to that grown from rooms in 4B.**

   Evidence for this is only 1 isolation of *Cryptococcus* spp. from 4B compared to 59 in the rest of the hospital non-HEPA filtered environments (as of 6 June 2016). This will be expanded in the final report.

   We have also continued to isolate *Cryptococcus* spp. (quite regularly) from 6A and 4C (and from other areas of the site, note Lab Block positives recently).

   This is probably the most likely cause of these patients breathing in spores of *Cryptococcus neoformans* and their subsequent infections.

3. **Lack of positively pressurised rooms (where air leaks uniformly outwards) in 6A and 4C** [unlike those in 4B, BMTU which are positively pressurised (at around +10 Pascals to the corridor); with about 10 Air Changes per Hour (ACH)]. Therefore in these wards (4C and 6A), air will leak **inwards** with potentially dirty air ingress through a variety of possible routes (including various service voids, e.g. mechanical risers) which might be open within the plant rooms etc. Wards 6A and 4C were both patient case wards.

   Wards 6A and 4C do not have 10 ACH, as 4B, but have around 3 ACH only (because of chilled beams).

   Therefore both wards could have had dirty air ingress that contains cryptococcal spores (let alone other fungi such as Mucor, Aspergillus species etc – as documented by air testing results in these areas).

   See documented issues in certain ward risers where air from risers pushing out into the ward corridors. Mitigation plan for these areas is therefore required.

   Therefore the above deficiencies are also possible routes for Cryptococcal spores and thereby the subsequent infections.

4. **Cylinder Room near PICU**

   We identified a gas cylinder store near PICU where there was a direct link between this storeroom and the outside air. This opened onto an area known as The Sanctuary – where there were documented issues with pigeon activity and fouling (See Pest Control Log of 6th Feb and 19th Feb 2019). Therefore this too was a plausible route of spores in the case of the [redacted] case – but [redacted] may have had protection from being in a PPVL room in PICU.

   Therefore this is another possible route of infection in one case ([redacted]). Mitigation plan required.

Item	Action

5. The Helipad

This was postulated as a possible issue with the helicopter down draft onto the helipad shifting/aerosolising pigeon guano into the AHU intakes on, particularly Level 12.

Please see the report and subsequent discussion in this minute around the Computational Fluid Dynamics Model.

Therefore the Helipad is unlikely to have contributed to the problem.

The bottom line is that 'at risk patients' - as both cases were - need to be in protective isolation, i.e. HEPA filtered environments, under positive pressure with appropriate ACH, where the air uniformly leaks outwards and they receive appropriate antifungal and anti-cryptococcal prophylaxis.

6. Identification of Cryptococcal Isolates

Note that some 30 isolates of cryptococci (mainly from early on – January 2019) have not been formally identified by the Mycology Reference Lab. JH to arrange this with Bristol – but may take a few weeks before results available.

7. Role of 'Tube' System

I am also investigating the possible role of the laboratory 'tube system' – which again may take several weeks.

8. Mitigation of Identified Issues

Ian Powrie asked if there is a schedule showing this mitigation apart from the Cryptococcus IMT Expert Advisory Sub-Group minutes. Colin Purdon agreed to prepare a full schedule timeline as an action log. **CP**

8. Date and Time of Next Meeting

The next meeting will be held at 10.00am on Friday 21 June 2019, Meeting Room 1, old Central Medical Building (CMB), QEUH (behind the old clock tower).

Cryptococcus neoformans Expert Advisory Group
A brief of the initial hypothesis, associated investigations and resulting conclusions

NB: the information below is in relation to hypothesis 1 only. Investigations and conclusions of any subsequent hypothesis generated will form part of the main Report.

Cryptococcus neoformans

Cryptococcus neoformans is a fungus that lives in the environment, including soil and other sources such as rotting wood throughout the world. People can become infected with *C.neoformans* after breathing in its spores, although most people who are exposed to the fungus do not get sick from it. *C.neoformans* infections are very rare in people who are otherwise healthy; most people affected are immunocompromised (weakened immune system). Classically it occurs in patients with advanced HIV/AIDS. It has a known association with pigeon droppings, with a complex association with the gut of pigeons and other birds.

It should also be noted that *C neoformans*, is technically difficult to isolate from air as we and others have found to be the case.

The Incident

In [redacted] 2018 two cases of *Cryptococcus neoformans* bacteraemia were confirmed in inpatients within the Queen Elizabeth University Hospital (QEUH) and Royal Hospital for Children (RHC). This was considered an Exceptional Infection Episode and was reported to Health Protection Scotland (HPS) as per Chapter 3 of the National Infection Prevention and Control Manual (NIPCM). A problem Assessment Group was convened on the 18th December 2018. This was followed by 14 Incident Management Team (IMT) meetings which took place between the 20th Dec 2018 and 15th Feb 2019.

Key facts:

- [redacted] Patients (n=2).
- 1 Adult – Ward 4C.
- 1 Child – Ward 2A RHC, Ward 6A (QEUH) and PICU (RHC).
- Considered as an Exceptional Infection Episode.
- Neither of the patients were nursed in HEPA filtered positive pressure rooms in which air uniformly leaks outwards (i.e. in ‘protective isolation’).
- In late November 2018 Level 12 Plant room 123, which housed Air Handling Units (AHU’s), as a result of pigeon ingress, was visibly contaminated with pigeon guano. Other Level 12 plant rooms (121,122 and 124) were also noted to have some contamination in late December 2018 – but much less so than in Plant room 123)
- The hypothesis at the time of the incident was that patient acquisition could have resulted from spores of *Cryptococcus neoformans* (derived from the pigeon guano) likely to be present in the plant room air, which then ‘gained access’ in

some way into the Air Handling Units (AHUs) which provided the ventilation to the wards in which the patients were.

The incident was declared over on 15th February 2019 following no further clinical cases and completion of agreed preventative actions generated from the IMT's.

Expert Advisory Sub Group

Following the incident being declared closed a Cryptococcus IMT Expert Advisory Sub Group was established to explore the hypotheses of the IMT described above. This involved extensive microbiological research, analysis of the ventilation systems as well as review of maintenance records. NB: Regular air sampling continues.

Hypothesis 1 in detail

Ingress of cryptococcal spores (specifically those of *C. neoformans*) from the plant rooms into the AHU's and then to the patient cases. The Group explored the above theory and early on discussions noted the position of the fan in these AHUs meant that before the fan the AHU was under negative pressure (suction side) and that there was a 12mm diameter AHU intake damper actuator spigot. This was prior to both the primary filter F4 and secondary filter F7. The conclusion was that any ingress of plant room air was both very small and before both filters, therefore not an issue. After the fan, and before the F7 filters, the AHU is under positive pressure therefore precludes ingress of plant room air into the AHU. The only time that the final AHU door is open and the AHU switched off is at the time of an F7 filter change i.e no final filter present for a short period of time.

The hypothesis was that on removal of the final filter, air from the plant room (?containing the cryptococcal spores) *could* be sucked into the duct and sent down the duct, or spores walked into the AHU from the plant room floor on the shoes of personnel enacting the change – but would need to be aerosolised, **without** the presence of the F7 filter during the change and then distributed to the wards/rooms served specifically by that AHU where the patients were subsequently affected.

Note that **outside air is drawn in directly into the ventilation systems** AHUs of the hospital, air is **NOT** drawn into the AHUs from the plant rooms themselves.

Investigations

- Air sampling from the internal and external environment, including plant rooms has been extensive, with over 3300 air tests being conducted. *C.neoformans* was not isolated from any of the air samples. *Cryptococcus albidus* as well as a number of other cryptococcal species were isolated initially from the air samples and advice was sought from the Reference Laboratory. Initial suggestion was to use *Cryptococcus albidus* as a surrogate marker for *C.neoformans*, this was later disputed. In any event, most early isolates and subsequent ones that were initially identified as *C. albidus* were not confirmed as such by the Reference Laboratory but as *C. diffluens*. Out of 93 isolations of Cryptococcus species from air sampling as of early Dec 2019 only 6 identified as *C. albidus* with 67 identified as *C. diffluens.*

Despite extensive air sampling and laboratory testing it has not been possible to grow *C.neoformans* in any air samples, external or internal. Other researchers have also found this problem. However, air sampling has shown the continued, but intermittent presence of various *Cryptococcus* spp. in room air samples **throughout** the QEUH site, and in different buildings. There has however, been only a single isolation of a *Cryptococcus* spp. (*C. curvatus*) from an outside air sample.

These positive internal air samples persist despite the reduced general pigeon population and removal and decontamination of any pigeon guano in plant rooms which have had routine inspection and cleaning since late December 2018. The most likely reason for these results is the presence of these spores in the external air which are not all removed by F7 final filters (i.e. not HEPA filters) AND/OR leakage of unfiltered air from service voids into rooms, if not positively pressurised with air uniformly leaking outwards – i.e. 'protective isolation' rooms.

- Plant room service allocation: the network of ducting and plant room allocation was investigated to establish which AHUs and plant rooms served the affected patient wards: wards 6A and 4C within QEUH and 2A and PICU within RHC. Pigeon ingress and fouling was mainly evident in Plant Room No 123 around the time of the incident. This plant room did not specifically serve Ward 2A and PICU in RHC nor Wards 6A and 4C of the QEUH which served the patient case rooms.

- Access to the AHU's - the only time at which the AHUs are opened, allowing 'potential' ingress of cryptococcal spores from plant room air, is during maintenance activities, i.e. at the time of a final filter change. From an extensive review of maintenance records no AHUs were shut down or accessed for maintenance activities during the timelines that these patient cases were in any of the wards/individual rooms* served by them (4C, 6A, 2A and PICU*).

  In addition, and most importantly, it was observed that when the AHU was opened, the final filter removed and the maintenance damper was manually overridden from the closed position - rather than sucking air inwards down into the ductwork - it actually pushes air outwards from the duct back into the plant room due to the natural ventilation 'Stack or Chimney effect'.

Conclusion of Hypothesis 1

The foregoing evidence therefore does not support the hypothesis that the air from the plant rooms, via the AHUs, was the likely source of the cryptococcal spores, specifically those of *C. neoformans,* which were then breathed in by the case patients.

The air sampling results, however, strongly suggests that the spores of *Cryptococcus* species, including *C. neoformans*, are most likely to be present in the incoming air which is directly drawn from the external environment into the AHU's. This probability has led to a number of other hypotheses being investigated, at length, by the group.

An extensive report detailing the complex investigations, considerations and subsequent findings which have resulted from exploration of the additional hypotheses will be produced.

Incident Management Meeting
Pseudomonas aeruginosa in Ward 10D
Meeting Room 13, Office Block, QEUH
Friday 3rd November 2017

Present: Sandra Devine (SD), Patricia Coyne (PC), John Duffy (JD), Susan Groom (SG), Mr Michael Kelly (MK), Morag Busby (MB), Maureen Gallagher (MG) Lynn Pritchard (LP), Fiona Gallagher (FG), Ann Kerr (AK), Mr Luke Campton (LC) Morag Gardner (MG), Mr Scott Davidson (SD), Anne Harkness (AH), Calum MacLeod (minutes)

Actions

Welcome & Apologies

Sandra Devine welcomed everyone to the meeting and introductions were made around the table.

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

Incident Update

Increase in Pseudomonas aeruginosa +ve patients who are in/had been in Ward 10D, QEUH.

Total of 4 patients who have all been in Ward 10D during their admission have came back +ve of Pseudomonas aeruginosa with a 5th patient pseudomonas fluorescens.

4 out of the 5 patients are still inpatients. One of the patients has subsequently died on [redacted]/10/17

Patient 1 was in a road traffic accident in [redacted] and returned home. Isolated from [redacted]/09/17 for +ve MRSA & aspergillus from swabs taken on admission (arm/elbow wounds). CPE +ve screen on [redacted]/09/17. Pseudomonas aeruginosa +ve on [redacted]/09/17 from left arm wounds (CRO)

Patient 2 admitted with pubic rami fracture and Psoas abscess. Notified by microbiologist on [redacted]/10/17 of Pseudomonas aeruginosa +ve on [redacted]/09/17 but awaiting confirmation if CRO.

Patient 3 admitted on 05/10/17 with right foot pain and discharge coming from surgical site. Previous surgery on [redacted]/09/17 ([redacted]). Surgical wound open and internal screws exposed and attended theatre on [redacted]/10/17 for washout of wound and removal of metal work. Returned to theatre on [redacted]/10/17 for further washout of ankle wounds and samples taken in theatre. Pseudomonas aeruginosa +ve on [redacted]/10/17.

Patient 4 was admitted on 25/09/17. Patient was subsequently moved to Gartnavel Ward 3C after operation but returned to Ward 10D for a washout of elbow wound that had broken down on [redacted]/10/2017. Patient died on [redacted]/10/2017. Pseudomonas aeruginosa +ve on [redacted]/10/17 from hip aspirate in blood culture bottle.

Patient 5 was admitted on 16/10/2017 into Ward 10D. Patient is currently in a single side

room in ward 3C in Gartnavel General as a +ve Pseudomonas.

Of the 5 patients 1 is a definite CRO, 2 are currently query CRO and the other 2 are Pseudomonas +ve.

Ann Kerr, Lead Nurse for Surveillance has found no surgical connection between the 5 patients as different surgical procedures were undertaken in different theatres with different surgical teams.

Investigations

The original three patients identified are currently in adjacent single rooms in Ward 10D and are likely to have been allocated the same nursing/AHP team.

The group informed the IPCT that some patients had also been in Ward 10B as this is used as a step down from patients from Ward 10D.

One of patients has been transferred to Ward 3C at Gartnavel General Hospital. This means that there is a possible cross site contamination between sites.

The IPCT also carried out a SICPs audit of the ward. They found issues with PPE use (gloves and aprons) where staff were wearing them outside of isolation rooms and also wandering around the ward with PPE on. IPCT highlighted it was not just nursing staff who were no adhering to PPE use but also Physios, Doctors and Domestics. The overall score of the SOICPs audit was 76% (Amber). The IPCT are currently arranging some training involving PPE use within the ward.

Currently awaiting typing results from Colindale reference lab in London. This can take approximately 14 days for the results. If typing results come back the same then is a definite link for cross contamination.

As a precaution Professor Brian Jones has requested that all patients should be screened (rectal swab & wounds) for CPE. If any specimens come back +ve they will be sent to Colindale for typing.

Pat Coyne informed the group that Ward 10D has a high number of discharge cleans of up to 10 a day. Senior Charge Nurse is concerned that this a high burden on the domestic in charge of the discharge cleans.

Control Measures

Professor Brian Jones has requested that Ward 10D, Ward 10B at the QEUH and Ward 3C at Gartnavel General Hospital should be closed as there is a high probability of cross link transmission between three wards and the 5 patients.

On request from the IPCT it has been suggested that staff movement be limited, any patients within the ward can be discharged home. The wards will be shut to all admissions/transfers except for patients who are discharged home. Any patient discharged into a Nursing Home Public Health will need to be contacted.

It was agreed that a terminal clean of all the three wards will be carried out as soon as possible. Pat Coyne will co-ordinate the cleans at the QEUH while the facilities team over at Gartnavel will be contacted to carry out the terminal clean of Ward 3C. Daily double cleans of the wards will also be carried out. **PC**

Professor Brian Jones (Microbiologist) has requested that environmental swabbing of sinks and commonly touched surfaces should be carried out with ward 10D. The IPCT will carry out these swabs this evening and will contact the Labs to let them know what they are for. **IPCT**

The IPC team have carried out a Pseudomonas checklist which looks at how water is disposed of, any splashing and spraying risks. No issues were identified with the checklist however after questioning 2 nurses about how they dispose of the dirty water from patient wash bowls; they both said they dispose of the water down the patients CHWB within their room. This should have been disposed of down the CHWB sink in the patient's en suite bathroom or down their toilet. This action was not seen by the IPCT.

HIIAT Classification

The Hospital Infection Incident Assessment Tool (HIIAT) is referred to for all outbreaks to identify the impact of the outbreak on severity of illness, services, risk of transmission and public anxiety. The team ratified a HIIAT score of RED.

Media Communication

Sandra Devine will speak to the press office regarding a press statement. It was agreed that Susan Groom will read over the press statement before being released. **SD/SG**

HPS Communication

Sandra will inform HPS of the current situation. **SD**

Date & Time of Next meeting

It was agreed that the next meeting will be arranged for Monday 6th November at 1530 in Meeting Room 14, Office Block, QEUH.

Action List

Gram Negative Bacteraemia (GNB) and Mycobacterium *chelonae* Incident Management Team

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status/Update
06/09/19	Dr Valyraki agreed to provide evidence that nowhere have chilled beams.	Dr Valyraki		
06/09/19	The patients that have been transferred to Edinburgh and Aberdeen hospitals the group asked for confirmation that they have had no positive blood cultures.	Dr Harvey-Wood		
06/09/19	ICDs, ID physicians and the clinical team to decide the arrangements regarding Ciprofloxacin going forward.	ICDs, ID Physicians, Clinical team		
06/09/19	Room 6 to be tested again as the new patient case was in this room for a period.	Estates		
06/09/19	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.	Estates Dr Kennedy J Rodgers		
06/09/19	Sandra Devine 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.	S Devine		
06/09/19	When speaking to the family an ICD normally attends as well. Sandra Devine agreed to raise this with the Head of Service.	S Devine		
06/09/19	Jen Rodgers and Dr Sastry to do a briefing paper which can then be given to the families.	J Rodgers J Sastry		
06/09/19	John Mallon to resample the rooms in Ward 6A and to do environmental swabs.	S Devine		
23/08/19	Standard Operating Procedure is to be written to outline requirements if a patient is moved out with Ward 6A.	Gillian Bowskill Dr Inkster	Ongoing	A draft SOP has been drafted and is awaiting sign off from an ICD.

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status/Update
23/08/19	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	Ongoing	Samples have been retaken today and the contractor also took samples on Monday. The results should be available today.
23/08/19	Revised SOP regarding the cleaning of chilled beams is to be sent to Dr Inkster	Estates	Complete	Complete and revised SOP will be sent to Dr Valyraki.
23/08/19	Increase the dosing of chlorine dioxide to 0.7 PPM	Estates	Ongoing	Dosing of chlorine dioxide to 0.7 PPM may be a potential lease of Biofilm and this could be a risk in the short term. Facilities to check if this should be carried out for the whole of the hospital. Tom Steele to discuss this with external advisors and will share this with Infection Control.
23/08/19	HEPA filtration units are to be fitted to every patient en-suite in Ward 6A.	Estates	Ongoing	One unit has been installed in Room 6 and another 20 are on order which should be delivered in approximately 4 weeks.
23/08/19	Timeline of when the boiler lost pressure and increased condensation is being compiled by Estates and will be mapped against patient timeline	Estates	Ongoing	The timeline of the lost pressure in the boiler to the patient timeline will be created. Tom Steele to share the data regarding the boiler and did advise the boiler was down for a short period of time.
23/08/19	Unfiltered water from Ward 6A DSR is to be tested along with water from DSR in PICU	Estates Sandra Devine	Ongoing	Samples have been taken and awaiting results. It was noted that sampling has been transferred to GRI now and discussion took place to have this standardised across GGC and to have a checklist. Sandra Devine to contact Brian Jones and John Mallon.
23/08/19	Peer review of Ward 6A by someone from Great Ormond Street or Leeds Children Hospital is to be arranged	Dr Emilia Crighton	Ongoing	Discussions have taken place with Dr Hartley, Director of Infection Control at Great Ormond Street and he is in agreement to do this.

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status/Update
23/08/19	Walk round to Ward 6A by HPS is to be organised.	Annette Rankin	Ongoing	Dr ~~isa~~ Ritchie, HPS carried out a walkround of Ward 6A and observations were emailed to the group emailed 3rd Sept 2019). ~~She said this was visual walkround of area~~ The request she received from the IMT was for an observational walk round; ~~and seen~~ no data was reviewed regarding clean air pathways, water, environmental samples, patient cases. ~~flow pressures. Tom Steele said there is normally 3 air changes in that ward area and can demonstrate positive pressure of 2 pascals. This is monitored and data is available. Dr Murphy asked how effective is 2 pascals of pressure and Tom replied that we are achieving 3 and 2 with the normal being 10 and 10.~~ In response to questions regarding whether Dr Ritchie considered the environment to be safe for this patient population Dr Ritchie emailed IMT members 9th Sept 2019.
23/08/19	Air testing is to be carried out within the Room 6 en-suite as new HEPA filter unit has been installed.	Estates	Ongoing	
14/08/19	Stefan Morton is to carry out hand hygiene training for staff within Ward 6A.	Stefan Morton	Ongoing	Extra teaching has been planned for the next few weeks
08/08/19	Environmental samples of the chilled beams are to be taken within Ward 6A and compared with samples taken of chilled beams in a spate area out with ward 6A.	Teresa Inkster	Ongoing	Samples have been taken.
08/08/19	Environmental samples of the chilled beams are to be taken within Ward 6A and compared with samples taken of chilled beams in a spate area out with ward 6A.	Teresa Inkster	Ongoing	Samples have been taken.
08/08/19	Clinicians have requested 2 additional beds be made available within Ward 4B, BMT, QEUH to accommodate immunocompromised patients.	Dr Emilia Crighton	Ongoing	Dr Crighton will see if there is two additional beds for patients within Ward 4B, QEUH. Dr Crighton forwarded on information to Dr Armstrong. Patients are still being transferred to Edinburgh and Aberdeen hospitals. Kevin Hill stated that he does not see any further bed expansion in Ward 4B.

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08/08/19	An option appraisal meeting is to be held to set out possible solutions if Ward 6A is to relocate.	Kevin Hill	Ongoing	Terms of Reference will be drafted.
08/08/19	Point of use filters to be fitted to taps within Clinic 2, RHC. Some sensor taps may need replaced in order to fit filters.	Colin Purdon	Ongoing	Estates haven't identified a suitable tap to replace sensor taps which are unable to be fitted with point of use filters. An alternative tap is to be procured.

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
08/08/19	Lorraine Dick is to set up a meeting to discuss how future correspondence can be given to patients/staff.	Lorraine Dick	Ongoing	Lorraine is meeting with Kevin Hill at the end of this week to discuss. Patients/parents are given a weekly update wit staff given written communication so they can refer to if questioned.
08/08/19	Sink within Nuclear medicine used to disposed of isotopes is to be investigated.	Colin Purdon	Ongoing	A partition has been placed between the two sinks. Colin Purdon will try and procure a tap that a point of use filter can be fitted to this sink. Been some resistant from department but this has since been resolved.
08/08/19	John Mallon and facilities are to meet to discuss future labelling of samples and to have this standardised across GGC. .	John Mallon	Ongoing	Colin spoke to DMA not enough room on bottles to put location on it so they put codes on bottle and create a sheet with a list of codes. They will now send the list of codes. Getting lot of water samples through find easy way what to test water for. Look for a sticker or an analysis so that they know what the lab have to test for/target. DMA to have specific form or have a specific sticker for water testing regarding this incident. John Mallon will get office staff to come up with new stickers in which DMA can use for future water testing.
25/06/19	Annette Rankin is to obtain a list of all positive M.Chelonae cases in Scotland. She will also do a report of all gram negative bacteramias and compare them between hospitals. About the nature of the organisms	Annette Rankin	Ongoing	Annette will send an SBAR relating to this to Dr Inkster tomorrow morning. Last two cases will be added onto her report. AR will send out next week w/b 19/8. An SBAR should be available next week.

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
23/08/19	Access to filtered water domestics can use while the sink in Ward 6A DSR is not being used.	Estates	N/A	Not required
23/08/19	Check that Ward 2A/2B RHC refurbishment are not installing similar sinks within the DSR where point of use filters cannot be used.	Colin Purdon	Complete	Complete
23/08/19	Replace sink and IPS panel within Ward 6A DSR to enable a different tap to be fitted so a point of use filter can installed.	Colin Purdon	Complete	A filter was fitted so there was no need to replace the IPS panel.
23/08/19	William Hunter is to investigate the details of the new scrubbing machine that Emma Somerville reported on being used within Ward 6A.	William Hunter	Complete	Complete
23/08/19	Briefing communication for staff and patients/family are to be created	Lorraine Dick Jenn Rodger	Complete	Complete
23/08/19	A holding statement for the press is to be written up	Lorraine Dick	Complete	Complete
23/08/19	Point of use filter to be fitted to DSR within PICU	Estates	Complete	Complete
23/08/19	Public toilets out with ward 6A including the disabled toilet are to be closed.	Estates	Complete	Complete
23/08/19	Biocide is to be introduced to the chilled beams water. Samples of the water within the chilled beams will be taken before and after implementation of the biocide.	Estates	Complete	Complete 29/08/19
23/08/19	John Mallon will create new stickers to be made up which will easily identify water samples requiring testing in relation to this incident.	John Mallon	Complete	Stickers have been created.
14/08/19	Push fittings are to be replaced with mechanical fittings for the chilled beams.(4 replacement connectors in each room) This will be carried out as soon as possible.	Colin Purdon	Complete	Complete

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
08/08/19	Estates to explore if it is possible to add in Chlorine Dioxide to the sealed water supply within the chilled beams.	Tom Steele	Complete	Estates have spoken to the chilled beams service provider who have experienced dosing the system with biocides. They require to know what has been found in the system so they know what biocides are required but will need to make sure there is no chemical reaction. Adding more chemicals to the chilled beams may cause other problems if there are any future leaks from them.
08/08/19	Updated timeline of all patients involved regarding this incident is to be sent out to the group. Dr Inkster will send Gillian Bowskill of a 2nd possible case to be added onto the time	Gillian Bowskill	Complete	GB to send updated timeline electronically to clinicians. Sent out this morning.
14/08/19	William Hunter is to find out if the scrubbing machines used in Ward 6A use Actichlor solution within them	William Hunter	Complete	William looked at scrubbing machine there was a slight residue of water after. Solution has been changed to Actichlor after finding out it was filled with unfiltered water with a neutral detergent solution. Emma Sommerville reported that there now seems to be different scrubbing machine being used within the ward which William Hunter will investigate.
14/08/19	Tom Steele is to send Dr Inkster the Data sheet regarding the a sample HEPA filtration unit which can be deployed within patients en-suites.	Tom Steele	Complete	This has been installed into Room 6, Ward 6A.
14/08/19	Toilet seat covers are to be fitted to patient en-suites	Colin Purdon	23/08/19	Complete
03/07/19	ARJO bath is to be removed from Ward 6A and cap the water outlet to the bath once approval has came from Anne Harkness	Darryl Connor	14/08/19	It was agreed that the water pipes will be capped so minimal disruption to ward. Scribe has been prepared and awaiting the go ahead for the decommission for this.

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
08/08/19	Look into a device that could gather all the condensation from chilled beams and be collected centrally within the ward	Colin Purdon	N/A	This has been taken off the action plan as there should be no condensation coming from the chilled beams.
08/08/19	Mechanical lock to be fitted to public toilet at the entrance of Ward 6A.	Colin Purdon	14/08/19	Complete
08/08/19	Alan Gallagher is to circulate his action plan regarding how estate/facilities issues are managed within Ward 6A.	Alan Gallagher	14/08/19	Complete
08/08/19	List of patient that are planned to come into Ward 6A is to be obtained.	Brenda Gibson	14/08/19	Complete
01/08/19	Water samples from the chilled beams are to be taken	Darryl Conner	08/08/19	Complete
01/08/19	The new algorithm regarding the functionality of the chilled beams is to be implemented	Colin Purdon	08/08/19	Complete
01/08/19	Chilled beams are to be cleaned every 6 weeks instead of 3 months. Estates will link in with SCN to ascertain availability of patient rooms	Darryl Conner	08/08/19	Complete
01/08/19	Dr Inkster will send the en-suite room numbers from where the positive air samples originated room so estates can look into possible sources.	Teresa Inkster	08/08/19	Complete – no obvious source
01/08/19	The introduction of Ciprofloxacin is to be given to patients if clinicians are in agreement?	Brenda Gibson	08/08/19	Complete
01/08/19	Peer audit of patient central line care is to be carried out by the practice development educator in conjunction with the Infection Control Team.	Jenn Rodgers	08/08/19	Complete
01/08/19	Gillian Bowskill and Sandra Devine will complete HIORT to be sent to Dr Inkster then onto HPS	Gillian Bowskill Sandra Devine	08/08/19	Complete
01/08/19	Agreement on general communication that can be shared between patient's/parents and NHS staff.	Teresa Inkster Kevin Hill Lorraine Dick	08/08/19	Complete

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
01/08/19	Dr Kennedy will send out his epidemiology findings comparing infection rates from the old Yorkhill site to the new RHC site.	Iain Kennedy	08/0/819	Complete – this will be added to the agenda for the next IMT as Dr Kennedy was not present.
03/07/19	Alan Gallagher is to create a detailed plan on what measures will be taken to minimise disruption to patients and clinical service when shock dosing treatment is implemented.	Alan Gallagher Teresa Inkster	Complete	Water experts were contacted on 13th August. They have requested for more extensive testing around the campus to ascertain how extensive mycobacteria is throughout the hospital. Dr Inkster has asked to see a report on what has been done regarding the water dosing, including water samples that have been taken. Water group are meeting on Friday 16th August to discuss further. Estates have concerns regarding the problems which occur when carrying our shock dosing to Ward 6A as a whole tower will need shut down to implement this. Increase of dosing has been carried out from 0.2 to 0.5 PPM on 5th July 2019
03/07/19	Sink within DSR may be getting a retrofitted filter attached to it. Currently speak to manufacturer	Darryl Conner	N/A	This was taken off action list as no Point of Use filter can be found that would fit this sink. Ongoing struggling to find a filter that is suitable to fit. This is not do able take off action plan.
03/07/19	Drain cleaning is to be carried out in Nuclear Medicine and MRI where ward 6A patients have been visiting.	Darryl Conner	08/08/19	Complete - Work in progress, sink used in Nuclear medicine radioactive waste is put down the sink. Darryl will need to check drainage. Complete.
03/07/19	Every 2 weeks water testing is to be carried out for half of Ward 6A then carried out for the other half	Darryl Conner	01/08/19	Complete - for water testing for all cold taps every 2 weeks

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
03/07/19	All point of use filters removed for routine replacement are to be labelled and kept until water results have been returned	Darryl Conner	01/08/19	Complete
03/07/19	Karen Connelly will contact Anne Harkness to seek approval for the removal of the ARJO bath.	Karen Connelly	01/08/19	Complete
03/07/19	Tap within unused prep room in ward 6A is to be replaced as no point of use filter can be fitted.	Darryl Conner	01/08/19	Tap has been replaced but water is now hitting the back of the sink. The sink has been put out of use.
03/07/19	Dr Inkster & Prof Gibson are to meet up with Steve Russell to discuss the current development of ward 2A/2B, RHC	Teresa Inkster Brenda Gibson	01/08/19	Dr Inkster & Prof Gibson have met with Steve Russell and Hazel McIntyre from Capitol planning and signed off the design for Ward 2A/2B.
25/06/19	Patient recently transferred to Edinburgh Children's Hospital is to be included in the Gram Negative patient timeline	Susie Dodd	25/06/19	Complete
25/06/19	Dr Iain Kennedy is to contact Scottish water to obtain samples of water being sent to QEUH campus to be tested within our own labs. Samples have been obtained from properties beside the QEUH and also from the Gartnavel site.	Dr Iain Kennedy	01/07/19	Complete
25/06/19	Darryl and Gael to meet up to confirm when the best time to fit point of use filters to areas where Ward 6A patients are likely to attend i.e. Theatres	Darryl Conner Gael Rolls	01/07/19	Complete
25/06/19	Modification to the aluminium sphigots within CHWB in Theatres & CDU will be undertaken. Unable to carry out due to technicalities so it was agreed that bottle brushing the drains will be carried out instead.	Darryl Conner	01/07/19	Complete
25/06/19	Increase dosing of chlorine dioxide is to be undertaken to the water supply	Colin Purdon	01/07/19	Complete
25/06/19	Additional hand hygiene step involving gelling of hands after being washed is to be introduced.	Gael Roll	01/07/19	Complete
25/06/19	Water samples are to be taken from chilled beams from Ward 6A	Darryl Conner	01/07/19	Complete

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
25/06/19	A log of when and where water leaks have happened due to the chilled beams is to be completed.	Darryl Conner	01/07/19	Complete
25/06/19	Air sampling for bacteria within Ward 6A is to be carried out while water is running into a CHWB to see if aerolisation is present	Dr Teresa Inkster	01/07/19	Complete
25/06/19	Kevin Hill & Dr Chris Deighan will take forward at Executive level regarding incidence of similar cases of Gram Negative Bacteraemia within similar units in with the rest of the UK.	Kevin Hill Dr Chris Deighan	01/07/19	Complete
25/06/19	Sandra Devine spoke to Dr Jennifer Armstrong about informing Edinburgh Royal Infirmary about testing their water supply before opening. She has requested that this should be carried out in a national forum and asked HPS for clarity. HPS informed the group that ventilation and water issues have been discussed at length between HPS and HFS	Sandra Devine	01/07/19	Complete
19/6/19	Compile Timeline of M.chelonae case (SJK)	Susie Dodd	20/06/19	Complete
19/6/19	Apply POUFs to theatre outlets	Colin Purdon	21/06/19	Complete
19/6/19	Check water cooler removed from 6A staff room	Colin Purdon	20/06/19	Complete
19/6/19	Carry out water testing in ward 6A pre and post POUFs (incl showers) and in theatres pre POUF application.	Colin Purdon	24/06/19	Complete
19/6/19	Water testing to be undertaken on outlets identified from timeline which currently have no filters.	Colin Purdon	24/06/19	Complete
19/06/19	Obtain Information from PAL to ensure that POUF are effective against Mycobacteria.	Colin Purdon	24/06/19	Complete
19/6/19	Compile report of water sampling results across RHC site to establish extent of M.chelonae within water supply.	Colin Purdon	24/06/19	Complete

Date Agreed Action	Action	Responsible Person/s	Completion Date	Status
COMPLETED				
19/6/19	Situation update report for clinical staff	Dr Chaudhury	20/06/19	Complete
19/6/19	Prepare holding press statement	Mark Dell/Dr Inkster	20/06/19	Complete
19/6/19	Provide email update to senior management teams	Dr Teresa Inkster	19/06/19	Complete

From: Mallon, John [redacted]
Sent: 02 September 2019 11:50
To: Lang Ann (NHS GREATER GLASGOW & CLYDE); RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND); Bowskill Gillian (NHS GREATER GLASGOW & CLYDE); Conner Darryl (NHS GREATER GLASGOW & CLYDE); Crighton Emilia (NHS GREATER GLASGOW & CLYDE); Davidson, Scott; Deighan, Chris; Dell Mark (NHS GREATER GLASGOW & CLYDE); Devine, Sandra; Dick Lorraine (NHS GREATER GLASGOW & CLYDE); Friel Patricia (NHS GREATER GLASGOW & CLYDE); alan.gallacher[redacted]; Gibson, Brenda; Hackett Janice (NHS GREATER GLASGOW & CLYDE); Hamilton Pauline (NHS GREATER GLASGOW & CLYDE); Sandra.Higgins[redacted]; Hill Kevin (NHS GREATER GLASGOW & CLYDE); Allyson.Hirst[redacted]; Howat Angela (NHS GREATER GLASGOW & CLYDE); Hunter William (NHS GREATER GLASGOW & CLYDE); INKSTER, Teresa (NHS GREATER GLASGOW & CLYDE); Joannidis Pamela (NHS GREATER GLASGOW & CLYDE); Kennedy Iain (NHS GREATER GLASGOW & CLYDE); Macdonald, David; Mcneil Elaine (NHS GREATER GLASGOW & CLYDE); Murphy, Dermot; Office, Press; phpu[redacted]; Purdon Colin (NHS GREATER GLASGOW & CLYDE); Redfern James (NHS GREATER GLASGOW & CLYDE); Rodgers Jennifer (NHS GREATER GLASGOW & CLYDE); Rolls Gael (NHS GREATER GLASGOW & CLYDE); Sastry Jairam (NHS GREATER GLASGOW & CLYDE); Somerville, Emma; Steele, Tom
Cc: MacLeod, Calum; REMFRY, Lesley (NHS NATIONAL SERVICES SCOTLAND); Harkness Anne (NHS GREATER GLASGOW & CLYDE)
Subject: RE: IMT Ward 6A, QEUH - 2nd September 2019

Hi Ann

Please accept my apologies for today's meeting.

From the oprevious minutes on Page 3 could:
John Mallon commented that recent samples from chilled beams were negative for gram-negative organisms, yeasts and fungi.

Be changed to
John Mallon commented that recent environmental swab samples from chilled beams were negative for gram-negative organisms, yeasts and fungi.

Regards

John Mallon
Technical Services Manager
Microbiology
NHS GG&C
GRI - [redacted]
QEUH - [redacted]
MOB - [redacted]

From: Lang, Ann
Sent: 28 August 2019 09:55
To: Annette Rankin; Bowskill, Gillian; Conner, Darryl James; Crighton, Emilia; Davidson, Scott; Deighan, Chris; Dell, Mark; Devine, Sandra; Dick, Lorraine; Friel, Patricia; Gallacher, Alan; Gibson, Brenda; Hackett, Janice; Hamilton, Pauline; Higgins, Sandra; Hill, Kevin; Hirst, Allyson; Howat, Angela; Hunter, William; Inkster, Teresa (NHSmail); Joannidis, Pamela; Kennedy, Iain; Lang, Ann; Macdonald, David; Mallon, John; McNeil, Elaine; Murphy, Dermot;

Office, Press; PHPU; Purdon, Colin; Redfern, Jamie; Rodgers, Jennifer; Rolls, Gael; Sastry, Jairam; Somerville, Emma; Steele, Tom
Cc: MacLeod, Calum; 'lesley.remfry[redacted]'; Harkness, Anne
Subject: IMT Ward 6A, QEUH - 2nd September 2019

Good morning

Please find attached an agenda and the minutes from the last IMT regarding the Paediatric haematology/oncology Ward 6A, QEUH.

Also attached is an updated action plan.

The next meeting is being held on:

Date: Monday 2nd September 2019
Time: 14:00
Venue: Room L2007, Level 2, Teaching & Learning Building, QEUH

Can you please let me know of any apologies.

Kind Regards

Ann Lang
PA/Data Manager to Infection Control Manager
Admin Building
Level 2
Queen Elizabeth University Hospital

Tel:[redacted]
Email:[redacted]

Subject: Canceled: IMT Ward 6A, QEUH
Location: Room L2007, Level 2, Teaching & Learning Centre, QEUH

Start: Mon 02/09/2019 14:00
End: Mon 02/09/2019 16:00
Show Time As: Free

Recurrence: (none)

Meeting Status: Not yet responded

Organiser: MacLeod, Calum
Required Attendees 'Annette Rankin'; Bowskill, Gillian; Conner, Darryl James; Crighton, Emilia; Davidson, Scott; Deighan, Chris; Dell, Mark; Devine, Sandra; Dick, Lorraine; Friel, Patricia; Gallacher, Alan; Gibson, Brenda; Hackett, Janice; Hamilton, Pauline; Higgins, Sandra; Hill, Kevin; Howat, Angela; Hunter, William; Inkster, Teresa (NHSmail); Joannidis, Pamela; Jones, Brian; Kennedy, Iain; Lang, Ann; Macdonald, David; Mallon, John; Murphy, Dermot; Office, Press; PHPU; Purdon, Colin; Redfern, Jamie; Rodgers, Jennifer; Rolls, Gael; Sastry, Jairam; Somerville, Emma; Steele, Tom
Optional Attendees: Murphy, Dermot (NHSmail); JONES, Brian (NHS GREATER GLASGOW & CLYDE)

Importance: High

Good afternoon

The IMT regarding Ward 6A, QEUH scheduled for this afternoon has been cancelled.

Kind Regards

Calum MacLeod
Infection Prevention & Control Administrator
Level 2, Zone 1, Office Block
Queen Elizabeth University Hospital
G51 4TF

[redacted]

[redacted]

Three babies die in pseudomonas outbreak at Belfast neonatal unit as source is traced to hospital taps

IN BRIEF

Councils in England to get new targets for public health: From April, when responsibility for public health in England will pass to local authorities, councils that make the most improvement in 66 measures, such as the number of children aged under 5 with tooth decay, obesity levels, breastfeeding rates, and falls in people over 65, will be rewarded with cash incentives, says the Department of Health. The new measures will also look at school attendance, domestic abuse, homelessness, and air pollution.

Waiting lists for treatment rise in England: The number of patients in England not being treated within the NHS waiting time limit has risen by 43% since the coalition government came to power, new figures show. Department of Health data show that the number of people not being treated within 18 weeks rose from 20 662 in May 2010 to 29 508 in November 2011.

Make recruitment to trials publicly available: Only 31% of clinical trials in the UK meet their original patient recruitment targets, which risks their becoming "scientifically useless and ethically unacceptable," say authors in *PLoS Medicine* (2012;8:e1001149, doi:10.1371/journal.pmed.1001149). Creating a public record of recruitment performance—posting the target goals before the study is begun, with periodic updates to close of enrolment—would bring transparency for study sponsors and help patients decide where to participate.

GMC sets up health website for doctors: The UK General Medical Council is launching a new website for doctors concerned about their own health or that of a colleague. "Your Health Matters" (www.gmc-uk.org/doctorshealth) lists sources of support and explains what happens when doctors are referred to the GMC about health concerns.

Standards are needed for electronic patient records: Electronic health records will need to use consistent formats and standards if they are to be easily understood, a working group established by the Department of Health for England has concluded. The group proposes a new body, the Professional Records Standards Development Body, under the auspices of the Academy of the Royal Medical Colleges, to develop standards for clinical and social care records, such as what should be recorded and shared when there are concerns about a child.

Cite this as: *BMJ* 2012;344:e551

Minister wants to see lawyers' leaflets banned from A&E departments

Clare Dyer BMJ

Hospitals in England are under pressure to ban advertisements by "no win, no fee" lawyers that many NHS trusts have been using to boost their revenue and defray the cost of producing information leaflets for patients.

The health minister Simon Burns has promised to ask the NHS chief executive, David Nicholson, to write to hospitals "to remind them it is not acceptable to display these adverts." He added: "The NHS is spending more and more each year on cases brought by aggressive no win, no fee lawyers. This money should be spent on patient care, not on fees to firms that actively chase personal injury claims.

"Patients should be able to focus on getting better, without having to be hounded by lawyers or adverts displayed in A&E departments."

GUSTOIMAGES/SPL

The claims company ASYST, which produced one leaflet (right), says it saves the NHS money

His comments came as the *Times* ran a story claiming that hospitals are defying an NHS ban on accepting no win, no fee advertisements (19 Jan, p 3). But the Compensation Act 2006 bans only advertising that was not agreed in advance with trust managers, and the 2007 NHS *Estate-code*, which contains best practice guidance on the management of NHS land and buildings, says only that posters advertising claims management or other legal services should not be permitted.

One company, BOE Medical Publishing, says that it has agreements with 170 hospitals and has produced £9.2m (€11m; $14.3m) of savings for the NHS in the past decade by providing the written information required by the patient's charter.

Lawyers who advertise are contractually bound not to bring clinical negligence claims against the trust but hope to find clients with possible compensation claims for road or work related injuries. Patients with possible claims over their hospital treatment must be referred to the trust's patient advice and liaison service.

Brighton and Sussex University Hospitals NHS Trust, one of the trusts with a contract with BOE, has decided to discontinue advertising from personal injury lawyers when its contract comes up for renewal soon, "due to feedback received from patients and the public."

Several MPs, including the Conservative MP for Brighton Kemptown, Simon Kirby, are campaigning on the issue.

Cite this as: *BMJ* 2012;344:e635

Three babies die in pseudomonas outbreak at Belfast neonatal unit as source is traced to hospital taps

Jacqui Wise LONDON

Investigators have identified hospital taps as the most likely source of the pseudomonas outbreak in the neonatal unit of the Royal Jubilee Maternity Hospital in Belfast in which three babies died.

As the *BMJ* went to press on Tuesday, the hospital confirmed that a further three premature babies were also infected with *Pseudomonas aeruginosa*, and another suspected case had been found. Of these one has died from other causes and two have recovered. Another five babies have the bacterium on their skin, but this is not causing active infection. The remaining babies in the neonatal unit have no sign of infection.

The hospital said that it had now carried out biodecontamination of the intensive care part of the neonatal unit. However, this will remain closed while a team ensures that all sources of infection are removed. All the other maternity services and wards at the hospital are working as normal. Babies requiring special neonatal care are being transferred to neighbouring units.

Pseudomonas aeruginosa is a Gram negative bacterium commonly found in soil and groundwater. It is one of the more common causes of healthcare associated infections and is increasingly resistant to many antibiotics. In hospitals the organism can contaminate moist or wet reservoirs such as respiratory equipment and indwelling catheters. Good hand hygiene and infection control measures are essential to help prevent patients contracting the infection.

Northern Ireland's health minister, Edwin Poots, said, "Babies in neonatal units are already vulnerable due to clinical conditions and varying degrees of prematurity. This makes them less able to withstand infections, including those that would not cause problems in healthy babies.

Lorraine Doherty, from Northern Ireland's

CENTRE FOR INFECTIONS/HEALTH PROTECTION AGENCY/SPL

Credit ratings would help early identification of trusts in financial difficulty, says Monitor

Nigel Hawkes LONDON

Credit rating agencies could be used to assess the financial soundness of NHS foundation trusts, the regulator Monitor has suggested in a consultation paper.

It says that agencies such as Standard & Poor's, Moody's, or Fitch could be given access to a trust's books and issue assessments of the trust's credit rating. Such ratings are normally used by investors to help decide whether governments or corporations have the ability and willingness to repay financial obligations such as bonds. The agencies were heavily criticised for failing to identify the high risks being run by banks before the economic crisis of 2008.

The suggestion that they could provide a measure of the financial risk being run by foundation trusts appeared in a consultation paper issued by Monitor on 16 December last year as part of its proposed licensing regime for foundation trusts. As a condition of maintaining a licence to operate, foundation trusts would have to maintain an "investment grade" credit rating from one of the major agencies or another agency approved by Monitor.

The agencies have different ways of describing their ratings, but Standard & Poor's issues investment grade ratings running from AAA (recently withdrawn from France and Austria) through AA and A to BBB-. A plus or minus attached to any rating shows the relative standing within that risk category of the organisation being rated. Any rating below BBB- (BB+, BB, B, and so on) is described as non-investment grade or speculative. Among the healthcare and pharmaceutical companies already rated by Standard & Poor's in the UK is the Priory Group, rated as B+, GlaxoSmithKline (A+), and AstraZeneca (AA-).

The credit agencies would not assess clinical quality, simply financial soundness. They would not be allowed to take into account any special government support, either implicit or explicit, in making their ratings, which would be designed to test foundation trusts' intrinsic financial strength. This means that the transfers of money often used to tide over hospitals in trouble would not be included in the assessments.

The suggestion formed part of a series of six documents issued by Monitor describing the conditions it proposes to impose as a condition of issuing a licence to a foundation trust to operate.

Although the documents appeared on Monitor's website last month—and the consultation period ends on Monday 23 January—the mention of the use of rating agencies went unnoticed until reported by the *Guardian* newspaper on 19 January, in the wake of the controversy over the down rating of France's sovereign debt (http://bit.ly/zMhtYj).

STAN HONDA/AFP/GETTY IMAGES

Among the companies in the UK already rated by Standard & Poor's (headquarters above) is the Priory Group, rated as B+, GlaxoSmithKline (A+), and AstraZeneca (AA-)

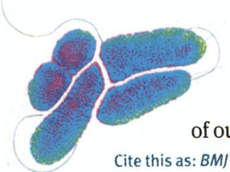
The proposal was attacked by Labour—its shadow health secretary, Andy Burnham, describing it as sending "a chill wind through the NHS."

Cite this as: *BMJ* 2012;344:e555

Public Health Agency, said: "Pseudomonas bacterium is an organism that can be found in many natural environments, including soil and water. Infections are mainly seen in immunocompromised and debilitated patients.

"Outbreaks of pseudomonas have occurred in intensive care facilities around the world as patients in these facilities are frequently immunocompromised. The Public Health Agency will continue to support the trust in their full investigation of this outbreak."

There was an outbreak of pseudomonas infection in December in the neonatal intensive care unit at Altnagelvin Hospital in Londonderry in which one baby died. However, the strain of pseudomonas was different from that in the current outbreak, and the Public Health Agency said there was no evidence to link the two.



Surveillance of pseudomonas is not mandatory, so there are no official data on the number of outbreaks in any setting.

Cite this as: *BMJ* 2012;344:e592

Scientists are given £4.4m to investigate "three parent IVF" for preventing mitochondrial diseases

Aniket Tavare BMJ

A pioneering research laboratory has been awarded £4.4m (€5.3m; $6.8m) to look into the role of a modified type of in vitro fertilisation (IVF) involving three adults to prevent the inheritance of mitochondrial diseases.

If approved for use in the UK—which would require a new law—the procedure could help the estimated 12 000 people who have a mitochondrial disease to have a healthy baby. About 100 babies are born each year with a severe form of the diseases, many of whom die in infancy.

Mitochondrial diseases occur when the DNA contained within mitochondria, distinct from that of the rest of the cell, gets damaged. Mitochondrial DNA is inherited solely through the maternal line, as are the diseases, which affect energy hungry organs such as the heart, muscles, and brain but often vary in severity.

Current options to prevent mothers passing on the diseases to their children, such as preimplantation genetic diagnosis, only reduce the risk of transmission. Doug Turnbull, who will direct the new Centre for Mitochondrial Research at the University of Newcastle, said that the new technique, which has been successful in rodent and primate models, "offers the possibility of stopping these diseases entirely."

The technique, pioneered by the Newcastle team, involves removing the DNA from the nucleus of an affected woman's egg and implanting it into a recently fertilised donor egg (which has no nuclear DNA) from a woman with normal mitochondria. Known as three parent IVF, the procedure can also be performed in unfertilised eggs. A baby born as a result of one of these techniques would have the genetic characteristics mainly of its mother and father but also some from the mitochondria of the egg donor.

Cite this as: *BMJ* 2012;344:e540

Louise Mackinnon

From: Peters, Christine [redacted]
Sent: 16 September 2024 15:40
To: TeamSHI
Subject: FW: Official - Sensitive Personal Data - re masks and RSV

Importance: High

As discussed

Dr Christine Peters
Consultant Microbiologist
QEUH/RHC
NHSGGC

From: Peters, Christine
Sent: Tuesday, January 17, 2017 1:44 PM
To: Inkster, Teresa (NHSmail) [redacted]
Subject: FW: Official - Sensitive Personal Data - re masks and RSV
Importance: High

CRITICAL !!!

From: Peters, Christine
Sent: 16 December 2015 09:09
To: Cruickshank, Anne
Cc: Inkster, Teresa (NHSmail)
Subject: FW: Official - Sensitive Personal Data - re masks and RSV

It appears that only Sandra can authorise the implementation of Transmission based precautions , despite all that was said over the past couple days. This has caused a delay in putting in place advise already given.

I cannot express strongly enough how compromised I feel my professional practice is becoming within the current set up in GGC infection control.

Christine

From: McNamee, Sandra
Sent: 16 December 2015 09:02
To: Inkster, Teresa (NHSmail); Peters, Christine; Pritchard, Lynn
Cc: Williams, Craig; Walsh, Tom; Cruickshank, Anne; Ferguson, Kirsty; Joannidis, Pamela; Higgins, Joan; Bowskill, Gillian
Subject: RE: Official - Sensitive Personal Data - re masks and RSV

Lynn
As agreed yesterday can you put this in place for these two patients.
Sandra

From: Inkster Teresa (NHS GREATER GLASGOW & CLYDE) [[redacted]]
Sent: 16 December 2015 08:54
To: McNamee, Sandra; Peters, Christine; Pritchard, Lynn
Cc: Williams, Craig; Walsh, Tom; Cruickshank, Anne; Ferguson, Kirsty; Joannidis, Pamela; Higgins, Joan; Bowskill,

Gillian
Subject: RE: Official - Sensitive Personal Data - re masks and RSV

Can I request that we put TBPs in place including masks for the two patients currently in ICU with RSV, pending discussion at tomorrows SMT.

One is the patient from B7 , the other is a renal patient who is immunosuppressed as a result of [redacted] and [redacted].

The circulating strain of RSV appears to be more virulent than usual with high mortality and morbidity in the B7 patients, none of whom had recieved bone marrow transplants.

Kind Regards
Teresa

Dr Teresa Inkster
Consultant Microbiologist and Infection Control Doctor
Dept of Microbiology
Queen Elizabeth University Hospital
Glasgow
Direct dial : [redacted]

From: McNamee, Sandra [[redacted]]
Sent: 15 December 2015 17:20
To: Peters Christine (NHS GREATER GLASGOW & CLYDE); Pritchard Lynn (NHS GREATER GLASGOW & CLYDE)
Cc: Williams Craig (NHS GREATER GLASGOW & CLYDE); Inkster Teresa (NHS GREATER GLASGOW & CLYDE); Walsh Thomas (NHS GREATER GLASGOW & CLYDE); Cruickshank Anne (NHS GREATER GLASGOW & CLYDE); Pritchard Lynn (NHS GREATER GLASGOW & CLYDE); Ferguson Kirsty (NHS GREATER GLASGOW & CLYDE); Joannidis, Pamela; Higgins Joan (NHS GREATER GLASGOW & CLYDE); Bowskill Gillian (NHS GREATER GLASGOW & CLYDE)
Subject: RE: Official - Sensitive Personal Data - re masks and RSV

Hi Christine
there is a well established process which we need to follow - if we don't, all we do is cause anxiety for front line staff. Issues that may arise: do relatives wear masks, what do staff tell relatives, do porters wear masks to transfer the patients or do the patients? would you put a mask on a patient with respiratory symptoms who may find it distressing?, public anxiety will increase when they see staff wandering corridors with masks, this needs to be managed; domestics/ porters have limited training so would need this put in place. We put off all the staff with respiratory symptoms in B7 would this be what we do across the board? We need to make sure education is appropriate and that people have the right information. Everyone supported the use of masks for this [redacted] on this occasion but your e mail implied that this was to be put in place in renal, itu and the beatson. A balanced approach to different risks is how we have managed this service thus far which is why we have processes, consultation and debate. I was in a meeting with the lead nurses from all sites but one and not a single person agreed with this approach.

regards
Sandra

Sandra McNamee
Associate Nurse Director
Infection Prevention & Control
[redacted]

From: Peters, Christine
Sent: 15 December 2015 17:05
To: McNamee, Sandra; Pritchard, Lynn

Cc: Williams, Craig; Inkster, Teresa (NHSmail); Walsh, Tom; Cruickshank, Anne
Subject: RE: Official - Sensitive Personal Data - re masks and RSV

Sandra, Tom,

No-one is changing policy today. We are giving advise in an individual circumstance, and I have been covering ITu this week along with colleagues. The point is that the patients in ICU are at risk of severe RSV infection – this applies to spread from either the Beatson patient OR any other patient (the renal patient is immune-compromised as well) . Therefore it seems logical to apply precautions to both patients in ITU.

Bearing in mind this is not an unusual thing to do and is in keeping with national policy on respiratory viruses.

Regards,
Christine

From: McNamee, Sandra
Sent: 15 December 2015 16:54
To: Peters, Christine; Pritchard, Lynn
Cc: Williams, Craig; Inkster, Teresa (NHSmail); Walsh, Tom; Cruickshank, Anne
Subject: Re: Official - Sensitive Personal Data - re masks and RSV

There is an acknowledged clinical risk in the post BMT patients which is not present in the wider community. We cannot mange services changing policy that has been consulted on and approved in a day. Accepted that locally we can advise additional precautions based on individual circumstances. Changing policy is not based on any individuals clinical opinion but on the relative risk when fully explored with other clinical staff eg itu consultants.

Sent from my BlackBerry 10 smartphone on the EE network.

From: Peters, Christine
Sent: Tuesday, 15 December 2015 16:43
To: Pritchard, Lynn
Cc: Williams, Craig; Inkster, Teresa (NHSmail); McNamee, Sandra; Walsh, Tom; Cruickshank, Anne
Subject: RE: Official - Sensitive Personal Data - re masks and RSV

Do we have evidence that the Beatson patient has a different strain from the community strain and what is the difference in risk for the other patients on ITU if it's a patient from the Beatson or a Renal patient with respiratory symptoms?

Christine

From: Pritchard, Lynn
Sent: 15 December 2015 16:36
To: Black, Katrina
Cc: Peters, Christine; Inkster, Teresa (NHSmail); Barmanroy, Jackie; Gallagher, Anne; McConnell, Donna; Singh, Sofie; Walker, Janice
Subject: RE: Official - Sensitive Personal Data - re masks and RSV

Hi Katrina
Following a discussion with the Leads and Microbiology Team and following the second death, it would be prudent to advise the staff to wear surgical masks for normal care and FFP3 for AGPs only for the patient who was [redacted].
This will be discussed further at the SMT on Thursday.
Thanks
Lynn

Lynn Pritchard

Lead Infection Prevention & Control Nurse - South Sector
Queen Elizabeth University Hospital
Zone 2 - 1 Office Block
Govan Rd
Glasgow
G51 4TF
[redacted]

From: Black, Katrina
Sent: 15 December 2015 16:17
To: Pritchard, Lynn
Subject: Official - Sensitive Personal Data - re masks and RSV

Hi Lynn,

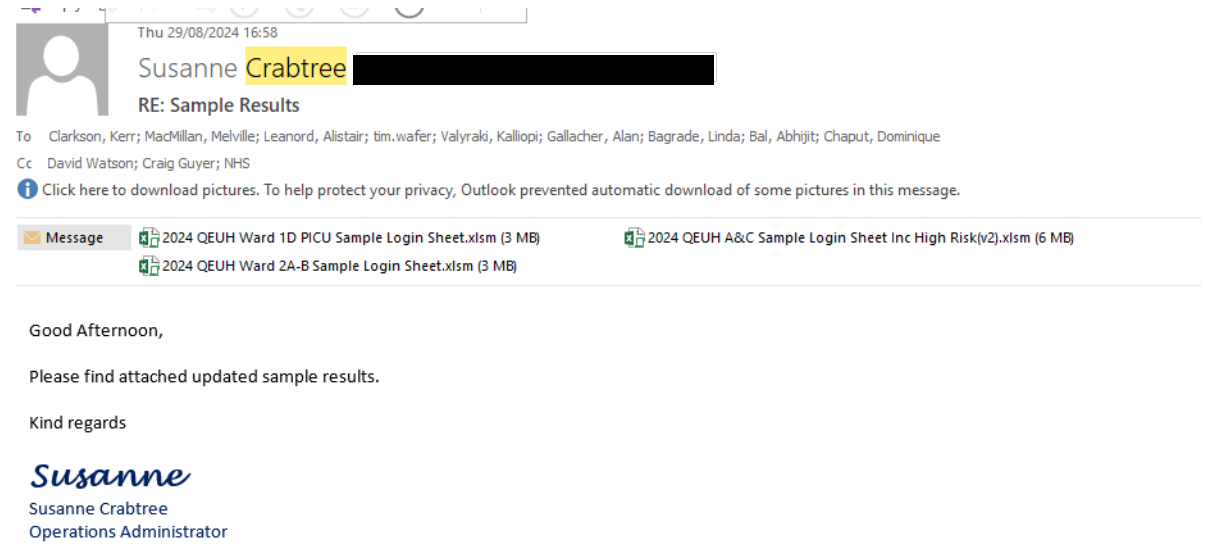
Christine Peters has just phoned to ask that we advise the staff in ITU caring for patients with RSV to wear surgical masks, there has been a second unexpected death in one of the patients involved in the outbreak. She has discussed this with Teresa, before I phone ITU 1+2 is this ok??
Kind Regards
Katrina

Katrina Black
Infection Prevention and Control Nurse
Queen Elizabeth University Hospital
South Glasgow Sector
[redacted]

Appendix 1 - Distribution list from Draft - Version K of the water safety plan

Department	Name	Role	QEUH & RHC (within spec / outwith spec)	QEUH Retained (out specs)	QEUH Retained (within spec)
Corporate Estates	Alan Gallacher	Head of Corporate Estates	Yes	Yes	No
Diagnostics	Abhijit Bal	Consultant Microbiologist	Yes	Yes	No
Diagnostics	Dominique Chaput	Health Care Scientist	Yes	Yes	No
Diagnostics	Kalliopi Valyraki	Microbiologist	Yes	Yes	No
DMA	Craig Guyer	Water Supervisor	Yes	Yes	**Yes**
DMA	David Watson	Water Consultant	Yes	Yes	No
Intertek	Tim Wafer	Authorising Engineer – Water	Yes	No	No
Laboratory Medicine	Alistair Leanord	Chief of Medical Diagnostics	Yes	Yes	No
Medical Microbiology	Linda Bagrade	Lead Infection Prevention and Control Doctor, Consultant Microbiologist	Yes	Yes	No
Operational Estates	Kerr Clarkson	Site Manager Operational Estates	Yes	Yes	**Yes**
Operational Estates	Melville MacMillan	Estates Manager	Yes	Yes	**Yes**

Example 08/24



Thu 29/08/2024 16:58

Susanne Crabtree [redacted]

RE: Sample Results

To Clarkson, Kerr; MacMillan, Melville; Leanord, Alistair; tim.wafer; Valyraki, Kalliopi; Gallacher, Alan; Bagrade, Linda; Bal, Abhijit; Chaput, Dominique

Cc David Watson; Craig Guyer; NHS

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Message 2024 QEUH Ward 1D PICU Sample Login Sheet.xlsm (3 MB) 2024 QEUH A&C Sample Login Sheet Inc High Risk(v2).xlsm (6 MB) 2024 QEUH Ward 2A-B Sample Login Sheet.xlsm (3 MB)

Good Afternoon,

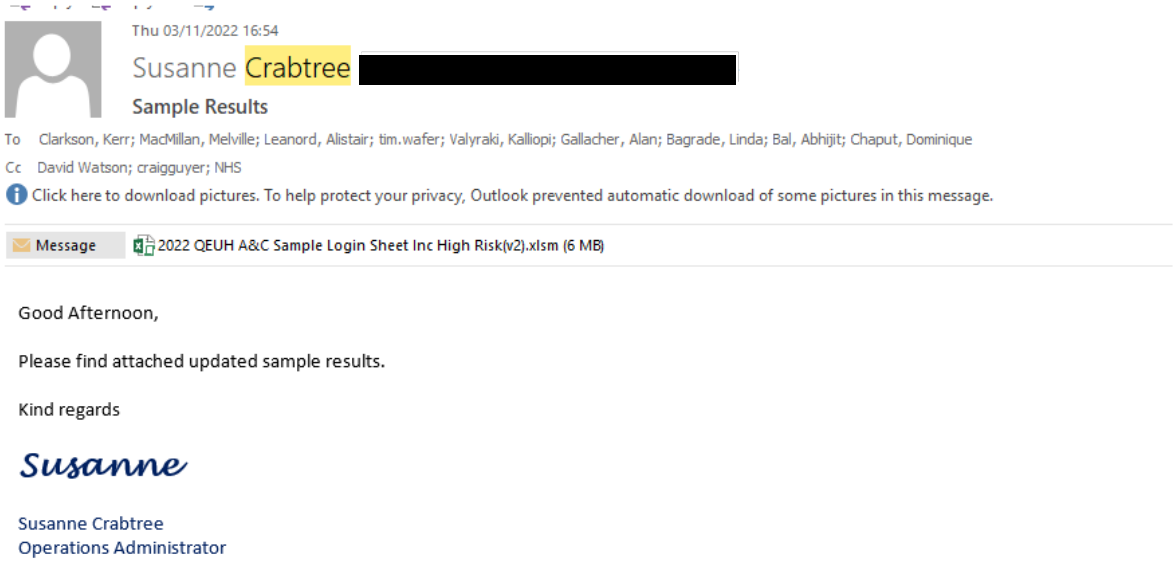
Please find attached updated sample results.

Kind regards

Susanne

Susanne Crabtree
Operations Administrator

Example 11/22



Thu 03/11/2022 16:54

Susanne Crabtree [redacted]

Sample Results

To Clarkson, Kerr; MacMillan, Melville; Leanord, Alistair; tim.wafer; Valyraki, Kalliopi; Gallacher, Alan; Bagrade, Linda; Bal, Abhijit; Chaput, Dominique

Cc David Watson; craigguyer; NHS

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Message 2022 QEUH A&C Sample Login Sheet Inc High Risk(v2).xlsm (6 MB)

Good Afternoon,

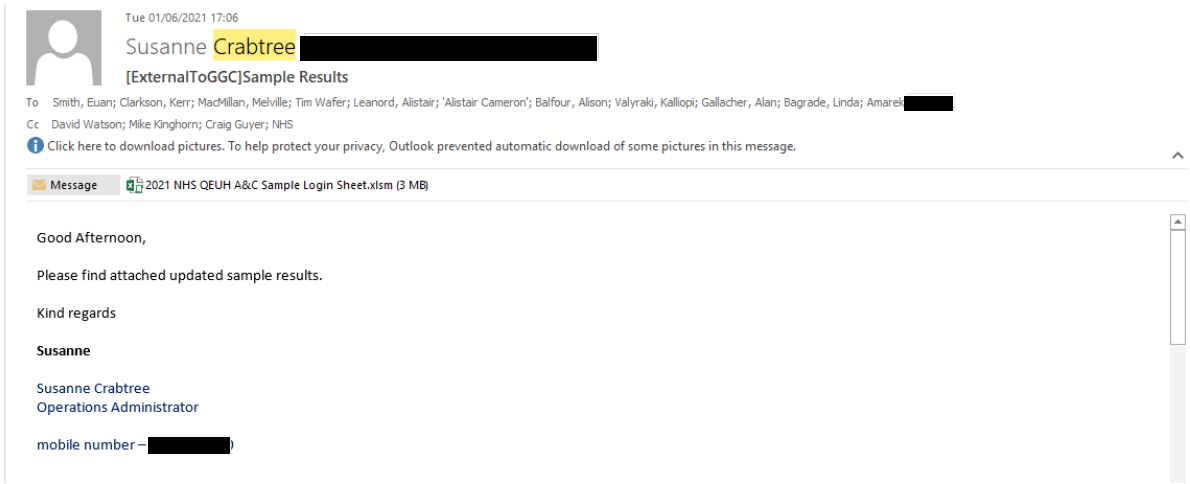
Please find attached updated sample results.

Kind regards

Susanne

Susanne Crabtree
Operations Administrator

Example 06/21



Tue 01/06/2021 17:06

Susanne Crabtree [redacted]

[ExternalToGGC]Sample Results

To Smith, Euan; Clarkson, Kerr; MacMillan, Melville; Tim Wafer; Leanord, Alistair; 'Alistair Cameron'; Balfour, Alison; Valyraki, Kalliopi; Gallacher, Alan; Bagrade, Linda; Amarel[redacted]

Cc David Watson; Mike Kinghorn; Craig Guyer; NHS

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Message 2021 NHS QEUH A&C Sample Login Sheet.xlsm (3 MB)

Good Afternoon,

Please find attached updated sample results.

Kind regards

Susanne

Susanne Crabtree
Operations Administrator

mobile number – [redacted]

Appendix 2 - TMT Maintenance Summary (4B,4C,6A,2A)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Adults 4B	Nov Showers only			Jan – Major				April – Major		Jan (2 rooms) – Major Aug – Major
Adults 4C		Jul - Major	May – Major Nov – Major	Feb – Major	Nov – Minor			Jun – Major		Aug – Major
Adults 6A					Apr – Minor	Feb – Minor		April – Major		Aug – Major
RHC 2A/2B		April – Major Dec – Major	Jul/Aug – Major Oct/Nov – Major	Feb – Major New Taps Marwick/New cartridges Wards closed Sept 18	Ward closed for construction	Ward closed for construction	Ward closed for construction TMV cartridges replaced	Ward reopens New taps/New cartridges – Marwick21+ for 2A/2B		Minor / Major part of new contract. Arranging for access at same time as vent cleaning.

Flow straighteners and POU's (4A,4B,4C,6A,2A/2B)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Adults 4B				**Flow straighteners removed 20/03/18** and POU Fitted and changed at agreed frequencies	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.
Adults 4C				**Flow straighteners removed 22/03/18** and POU Fitted and changed at agreed frequencies	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.
Adults 6A				**Flow straighteners removed 24/09/18** and POU Fitted and changed at agreed frequencies	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.
RHC 2A/2B				**Flow straighteners removed 16/03/18** and POU Fitted and changed at agreed frequencies	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.

Flow straighteners and POU's

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Identified High risk areas				**Flow straighteners removed** and POU Fitted and changed at agreed frequencies by DMA.	**Flow straighteners removed in additional areas as more POU's added.** POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.	POU Fitted and changed at agreed frequencies by DMA.
Identified Low risk areas				**Flow straighteners replaced quarterly by DMA on Horne Optitherm taps** **Flow straighteners removed and bioguard with no mesh added to Contour taps.**	Flow straighteners replaced quarterly by DMA	Flow straighteners replaced quarterly by DMA	Flow straighteners replaced quarterly by DMA	Flow straighteners replaced quarterly by DMA	Flow straighteners replaced quarterly by DMA	Flow straighteners replaced quarterly by DMA

Site	Building	Area	Number of POU	Manufacturer	Days filter can be used for	Reason for installaiton	Patient Risk Factor
QEUH	Adults	A&E	3	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	Basement Kitchen	2	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	Ground MRI	8	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	Ground Adults	5	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	Ground Xray & imaging	18	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	1st Floor MR Suite	7	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	1st Flor CT Scan	7	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	1st Floor dishwashers	7	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	HDU 1	3	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	HDU 2	3	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	HDU 5	3	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	HDU 6	3	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	Nuclear Medicine	6	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	2nd Floor	5	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	2A	68	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	3rd Floor	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	Dishwashers	8	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	1C	87	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	4A	77	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	4B	86	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	4B2	32	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	4C	60	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	4D	100	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	5A	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	5B	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	5C	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	5D	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	6A	97	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	6B	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	6C	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	6D	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	7A	95	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	7B	95	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	7C	95	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	7D	96	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	Adults	8A	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	8B	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	8C	95	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	8D	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	9A	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	9B	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	9C	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	9D	95	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	10A	95	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	10B	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	10C	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	10D	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	11A	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	11B	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	11C	95	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	Adults	11D	1	PALL	62	Historical based on previous Patient Risk	Low Risk
QEUH	RHC	CDU Observation	77	PALL	62	Precaution based on Patient Risk	High Risk
QEUH	RHC	Ground Floor	2	PALL	62	Historical based on previous Patient Risk	Low Risk

PALL	31	High Risk	Precaution based on Patient Risk
T-SAFE	62	Low Risk	Due to out of spec
DELABIE	92		Historical based on previous Patient Risk

AHU Ref	Hospital	Floor	Ward	Door Tag	Bedroom
41AHU33 41-33EF01	RHC	2	2A	SCH-066	Bed 17
41AHU32 41-32EF01	RHC	2	2A	SCH-067	Bed 18
41AHU31 41-31EF01	RHC	2	2A	SCH-072	Bed 19
41AHU30 41-30EF01	RHC	2	2A	SCH-074	Bed 20
41AHU19 41-19EF01	RHC	2	2A	SCH-010	Bed 22
41AHU23 41-23EF01	RHC	2	2A	SCH-011	Bed 23
41AHU28 41-28EF01	RHC	2	2A	SCH-017	Bed 24
41AHU29 41-29EF01	RHC	2	2A	SCH-020	Bed 25
21AHU13 21-13EF01	Adults	1	HDU/ICU 3	CCW-111	Bed 24
21AHU14 21-14EF01	Adults	1	HDU/ICU 4	CCW-078	Bed 31
21AHU15 21-15EF01	Adults	1	HDU/ICU 4	CCW-092	Bed 40
41AHU41 41-41/EF01	RHC	3	3C	GW1-055	Bed 9
41AHU40 41-40/EF01	RHC	3	3C	GW1-056	Bed 10
21AHU17 21-17EF01	Adults	1	HDU/ICU 5	CCW-158	Bed 43
41AHU45 41-45/EF02	RHC	3	3A	GW3-054	Bed 15
21AHU11 21-11EF01	Adults	1	HDU/ICU 1	CCW-025	Bed 4
41AHU34 41-34EF01	RHC	1	1D (PICU)	CCW-105	Bed 18
21AHU12 21-12EF01	Adults	1	HDU/ICU 3	CCW-245	Bed 23
41AHU43 41-43/EF01	RHC	3	3B	GW2-022	Bed 19
21AHU10 21-10EF01	Adults	1	HDU/ICU 1	CCW-042	Bed 3
41AHU42 41-42/EF01	RHC	3	Between 3B/3C	GW2-055	Bed 5
21AHU08 21-08EF01	Adults	1	HDU/ICU 2	CCW-051	Bed 11
21AHU09 21-09EF01	Adults	1	HDU/ICU 6	CCW-165	Bed 50
21AHU16 21-16EF01	Adults	1	HDU/ICU 5	CCW-140	Bed 44
41AHU15 41-15/EF01	RHC	1	1D (PICU)	CCW 068	Bed 12
41AHU01 41-01/EF01	RHC	Ground	CDU	OBW-050	Bed 17
41AHU16 41-16/EF01	RHC	1	1D (PICU)	CCW-099	Bed 17
41AHU13 41-13/EF01	RHC	1	1D (PICU)	CCW-083	Bed 5
41AHU02 41-02EF01	RHC	Ground	CDU	OBW-051	Bed 18
41AHU37 41-37/EF01	RHC	1	1E	CAR-016	Bed 13
41AHU18 41-18/EF01	RHC	1	1E	CAR-011	Bed 14
41AHU39 41-39/EF01	RHC	2	2C	ARU-108	Bed 5
41AHU38 41-38/EF01	RHC	2	2C	ARU-109	Bed 6
41AHU44 41-44/EF02	RHC	3	3A	GW3-053	Bed 16

QEUH and RHC Legionella L8 Technicians Tool Store

The L8 Legionella Teams tools are kept in a store room Fig 1 & 2.

They have a “Dirty” tool rack Fig 3 and a “Clean “tool rack Fig 4, which are separated as can be seen from the photographs.

Each Competent Person (CP) for Legionella sits a City and Guilds fully accredited training course, which is designed for working within a healthcare environment. One of the points that the training focuses on is the importance of clean and dirty tools when working on differing types of water systems. This also includes the cleaning and preparing of these tools especially when working on live systems.

After the Training course an exam is taken to ascertain if the perspective CP is competent to work on healthcare water systems.

Once City and Guilds certification is obtained the prospective CP has to sit down with the Authorised Person (AP) for Legionella and pass a interview along with a 20 question set on Legionella within a health care environment.

If the Prospective CP passes this test and interview he is then signed off with a written letter from the AP that he has passed

the criteria for a CP Legionella, he or she is now allowed to work on the water systems within the health care environment. These CP appointments are valid for three years, thereafter a refresher course is to be completed.

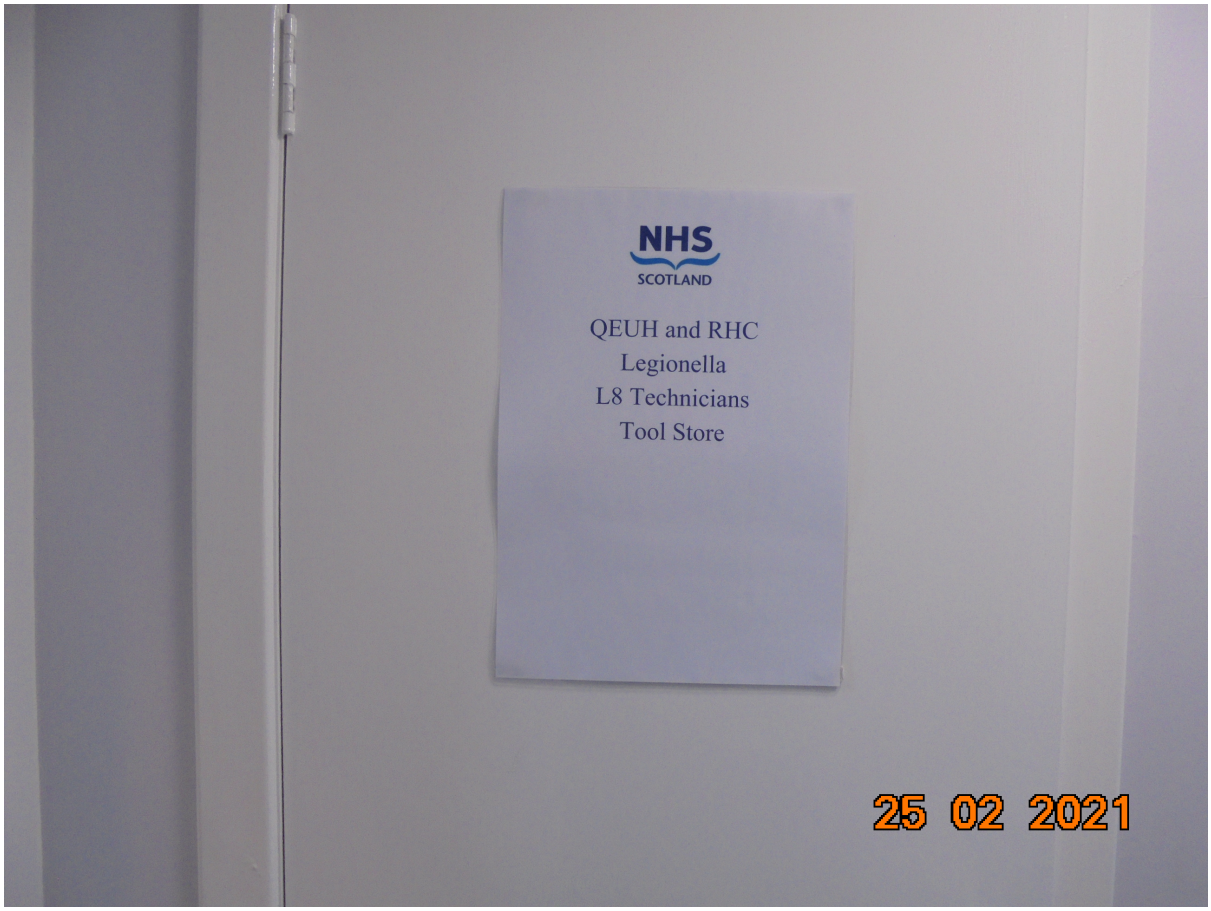


Fig 1 L8 Teams Tool Store Room (Source NHS GGC)

Fig 2 L8 Teams Tool Store Room (Source NHS GGC)

Fig 3 L8 Teams “Dirty” Tools (Source NHS GGC)

Fig 4 L8 Teams “Clean” Tools (Source NHS GGC)

Health Protection Scotland

NHS National Services Scotland

External peer review of NHSGG&C processes (infection surveillance) related to Appendix 13 of the National Infection and Control Manual	
Situation	HPS received a request from NHS GG&C IP&CT to undertake an external peer review of NHS GG&C processes (infection surveillance) related to Appendix 13 of the National Infection Prevention and Control Manual (NIPCM). A peer review meeting was held on Wednesday 29th Nov 2017. Present: Pamela Joannidis, NCIC, and Kate Hamilton, Lead ICN, NHS GG&C; Lisa Ritchie, NCIC, HPS and Michael Lockhart, Consultant Microbiologist, HPS.
Background	Effective local infection surveillance in healthcare settings is an important IP&CT activity to optimise patient safety. Local infection surveillance (which includes surveillance of alert organisms and conditions) is carried out to prevent and detect outbreaks and to minimise infections resulting from healthcare. Appendix 13 of the NIPCM provides a nationally agreed minimum list of alert organisms and conditions: http://www.nipcm.hps.scot.nhs.uk/appendices/appendix-13-nhsscotland-alert-organismcondition-list/ which when suspected/identified may require IP&C/PH investigation and where appropriate, implementation of control measures and other relevant actions. The Appendix 13 list is not exhaustive and specialist units e.g. those managing patients with Cystic Fibrosis will also be guided by local policy regarding other alert organisms not included within these lists. In addition, Appendix 13 lists resistant bacteria, the identification of which should act as an alert to Microbiology Teams, IP&CTs and Antimicrobial Management Teams (AMT). The commission for this peer review came from NHS GG&C ICM following their Microbiology Laboratory reporting an increase in the number of *Exophiala* colonisations in cystic fibrosis patients over an 18 month period to

	September 2017. *Exophiala* isolates were also reported by the Microbiology team to be found in a dishwasher and kitchen sink where cystic fibrosis patients are accommodated. Whilst remedial environmental actions were taken to eradicate the environmental sources of *Exophiala,* some uncertainty remained regarding the interaction / interface between the Microbiology Laboratory reporting of such isolates and the required IP&CT response.
Assessment	A local infection surveillance programme will enable the IP&CT to: • Detect and respond at the earliest possible opportunity to alert signals suggesting that there may be outbreaks or problems with infection prevention and control • Quantify the frequency of patients with alert organisms and alert conditions and any risks associated with the resources available to care for them • Identify locations for quality improvement programmes with the greatest impact on patient safety. • Act as a support to clinical areas by providing data on performance and guiding them to necessary actions and/or system improvements • Feed forward to management, assessments of performance and risks within the NHS Board • Report data to national surveillance programmes to facilitate benchmarking and the sharing of critical information for wider alerts to be issued nationally NIPCM, Chapter 3: http://www.nipcm.hps.scot.nhs.uk/chapter-3-healthcare-infection-incidents-outbreaks-and-data-exceedance/ NHS GG&C use ICNet as the main infection surveillance and data analysis system. ICNet receives data from the local Microbiology Laboratory and acts as a case management tool which is almost exclusively used by the ICNs in NHS GG&C. The ICNs monitor ICNet for infection exceedance in particular wards and when that occurs will engage with the wider ICT including ICDs. It was noted that despite the central importance of the ICNet system to infection surveillance in NHS GG&C there is no routine audit of the quality and reliability of the data feed from the local LIMS to ICNet.

	The ICN's also receive individual updates from medical microbiologists of unusual isolates (often but not exclusively exceptional resistance isolates) but there is no formally agreed protocol for identifying which unusual isolates should be passed onto the ICNs and there is no updated process in place to ensure medical microbiologists are fully aware of which alert organisms the ICNs monitor in ICNet. This appears to be a potential gap and cause for confusion, which could be exacerbated as there is no routine catch up between the ICNs and the wider medical microbiology community in NHS GG&C. Also there is no process in place to monitor the consistent notification of these isolates from medical microbiology to the ICN's. The NHS GG&C ICN colleagues reported that when any of the following alert organisms/conditions are identified to the ICN team: unexplained increase in any organism, alert antibiotic resistant organism or clinical infection presentation suggesting a possible outbreak; unusual organisms presenting a significant risk to public health; or infections relating to a decontamination failure – then there is an IP&C/PH investigation, discussion with clinical teams, control measures and other relevant actions implemented where appropriate. Surveillance data are also fed forward: two weekly reports (Wednesday and Friday) and a monthly geographical sector report are tabled at respective Clinical Governance Committees. All chief officers are present/represented at these meetings and any action plans are agreed if appropriate at these meetings. All reports/outcomes are subsequently discussed at the Acute ICC and the Board ICC. Discussions also highlighted that when unusual infection occurrences are detected this would lead to a judgement being required on appropriate next steps. If the incident was judged as requiring an IMT meeting then a consensual package of interventions would be agreed between all participants. However, where an IMT was not warranted then often the final decision arbiter would be the relevant ICD. It was noted that often these were in unusual situations where there is little published evidence available, and so decisions would come down to an individual's risk assessment, and NHS GG&C ICN colleagues perceived variation in the advice given by ICDs. It should be noted that the local ICD colleagues were not included in the discussions for the preparation of this SBAR and so it is difficult to assess

	the significance of this issue, based on the current external review. However, the external review team would suggest that to evaluate this further the NHS GG&C IP&CT may wish to reflect on this topic locally and internally agree whether routine IP&CT incident review/clinical effectiveness sessions may be beneficial. Finally, it was noted that the processes around response to MRSA, SAB and *C difficile* were highly developed and extremely thorough. However, the processes for response to some of the other infectious threats highlighted in Appendix 13 are less well developed and further consideration needs to be given as to how to ensure consistent and equitable response to all of these infectious threats by the local team.
Recommendations	Based on the meeting discussions, our HPS peer review recommendations are as follows: • Audit of LIMS feed to ICNet to ensure the ongoing quality of the data feed to the NHS GG&C electronic infection surveillance system. • Establish a shared knowledge of ICNet capability across the IP&CT membership and also medical microbiologists who don't have an identified infection control role. • Establish an agreed alert organism list of what is captured on ICNet and review this at least annually through discussion between all IP&CT members and if possible medical microbiologists .As a minimum ensure it includes the alerts recommended in Appendix 13, NIPCM . • Agree any extra lists of alert organisms considered important to have surveillance on i.e. alert organism/condition surveillance for patients in high-infection risk units'. This may need to be more sensitive in looking for micro-organisms which would not be considered pathogenic in specimens from patients in other clinical areas. Patients who are at greater risk of developing an HAI include those who have extensive breaches in their skin integrity; are severely immune compromised; have multiple invasive devices in situ; require organ support. IP&CTs should identify their local high-infection risk units and which additional microorganisms (if any) merit IP&CT referral on identification.

	• Given that the Table 6, Appendix 13, 'Resistant bacteria (exceptional phenotypes) – (amended version based on EUCAST Expert rules and intrinsic resistance, 2016'), relies on communication directly from the medical microbiology team, then an audit of consistency of medical microbiology reporting of these and other unusual organisms may be beneficial. • Consider the usefulness of routine IP&CT incident review/clinical effectiveness meetings.

NHS Greater Glasgow & Clyde

The Role of the Infection Control Team in New Builds and Refurbishments

Background

The design of the healthcare environment plays a fundamental role in infection prevention and control. ICTs should therefore be involved at all stages of a project, from the initial planning through to completion and handover. ICDs should be involved in the drafting of the employers requirements and the deliverable outputs of ventilation for all specialist ventilated areas as defined by SHTM 03-01. For ventilation to general ward areas relevant SHTMs and HBNs should be adhered to and any proposed derogation should be discussed and signed-off at 1:50 plan stage with ICDs.

Planning

Capital planning or estates should contact lead ICN for Sector. ICT should attend all relevant planning meetings. Capital planning/estates will initiate and lead on the HAI SCRIBE process.

Depending on the nature of the project ICT should consider at this early stage, in consultation with Capital Planning and Facilities Compliance Team whether further expertise or input will be required from HFS, HPS, Decontamination group, Water group or any other relevant agency.

1 in 500 or 1 in 200 plans

Check flow through facility, dirty and clean areas, and waste management

If specialised ventilated area ICD to confirm ventilation specification as per relevant SHTM, SHBN e.g. theatres, BMT, isolation rooms and risk assess any proposed derogations.

Check all necessary facilities are included e.g. dirty utility, clean utility, sluice, linen, toilets, staff areas, prep rooms, treatment rooms, storage space and disposal hold. More details and spec for each of the above can be found in the built environment folder on IPC pan Glasgow shared drive.

1 in 50 plans

Check bed spacing and numbers

Check adequate HWB and appropriate placement throughout. Check other sinks e.g. scrub, stainless steel

Advise on placement of alcohol gels

Advise on materials – low infection risk, easy to clean and maintain, compliant HWB and taps, discourage difficult to access surfaces

Sign off stage

Should be a joint process and involve project team, estates, users, ICD and ICN as appropriate

HAI scribe should be completed for all works. Consider diversion of high risk patient groups, need for prophylaxis or additional monitoring of high risk areas with air sampling during works.

Dust levels during construction should be visually monitored by ICT and users and additional cleaning or control measures applied if necessary

Near completion

Site visits to point out IPC related snagging issues to project team before handover.

Specialised ventilated areas require validation reports - ICD will check these with estates colleagues. Organise air sampling or water testing if appropriate.

Handover stage

Visit before users move in - check equipment layout as planned 1 in 50s, particular attention to HWB, alcohol gel placement.

Visit again after users move in to identify any unforeseen issues and input to Post Project Evaluation at 6 and/or 12 months post occupamncy.

General Notes:

1. The ICT team will ensure that they have adequate resources in place to align critical decisions to be taken in sufficient times for project programmes to be achieved.
2. The Property, Procurement and Facilities Management Directorate's Project Manager will ensure that adequate notification is provide to the ICT on the timing of projects. The ICT team will be provided with a copy of the approved annual Capital Plan.
3. The ICT team will ensure that their professional advice is complete, consistent and not subject to challenge or change after the advice is provided to the Project Manager.
4. This document will be reviewed in January 2018.

Approved by: Director of Property, Procurement & Facilities Management

Medical Director

December 2016

References

1. SHFN 30 Part A. Information for design teams, construction teams, estates and facilities and infection prevention and control teams.
www.hfs.scot.nhs.uk/publications/1418138222-V4 0 Manual final.pdf

From: Annette Rankin
To: Paul Chapple
Subject: 5311 FW: Chairing IMT,
Date: 12 September 2024 19:11:14

Hi Paul

This is the one of the emails that KC McIntosh requested regarding the DoN GGC asking about chairing an IMT

Annette

From: REILLY, Jacqui (NHS NATIONAL SERVICES SCOTLAND) [redacted]
Sent: Saturday, August 24, 2019 5:58 AM
To: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND) [redacted]
Cc: IMRIE, Laura (NHS NATIONAL SERVICES SCOTLAND) [redacted]
Subject: Fwd: Chairing IMT,

A
As discussed- this is the only communication I've had from GG&C.
J

Professor Jacqui Reilly
Sent from my I phone

Begin forwarded message:

> **From:** "REILLY, Jacqui (NHS NATIONAL SERVICES SCOTLAND)" [redacted]
> **Date:** 20 August 2019 at 17:28:15 BST
> **To:** "margaret.mcguire[redacted]" [redacted]
> **Subject: Re: Chairing IMT,**
>
> Hi Mags
> Usually it is a CPHM in line with the managing public health guidance.
>
> If you need a chat I am on [redacted]
> Jacqui
>
> Professor Jacqui Reilly
> Sent from my I phone
>
> On 20 Aug 2019, at 16:27, Mcguire, Margaret

<Margaret.Mcguire[redacted]> wrote:

Jacque just at a meeting to discuss our IMTs if it's not an ICD who should/ could it be?

Sent from my iPhone

From: Annette Rankin [redacted]
Sent: 12 September 2024 19:14
To: Paul Chapple
Cc: Laura Imrie
Subject: 5332 FW: [ExternaltoGGC]Re: HIIAT RED QEUHa

The 2nd of the emails

Annette

From: INKSTER, Teresa (NHS GREATER GLASGOW & CLYDE) [redacted]
Sent: Friday, August 23, 2019 5:25 PM
To: Devine, Sandra [redacted]; RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND) [redacted]; RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND) [redacted]; Birch, Jason (SGPU) [redacted]; Elizabeth Burgess - Scottish Government (External) [redacted]; WILSON, Julie (NHS NATIONAL SERVICES SCOTLAND) [redacted]; Mediarelations (NHS NATIONAL SERVICES SCOTLAND) [redacted]; MULLINGS, Abigail (NHS NATIONAL SERVICES SCOTLAND) [redacted]; IMRIE, Laura (NHS NATIONAL SERVICES SCOTLAND) [redacted]; THOULASS, Janine (NHS NATIONAL SERVICES SCOTLAND) [redacted]; WALLACE, Heather (NHS NATIONAL SERVICES SCOTLAND) [redacted]; HPSINFECTIONCONTROL (NHS NATIONAL SERVICES SCOTLAND) [redacted]; BOSWELL, Catherine (NHS NATIONAL SERVICES SCOTLAND) [redacted]; CAIRNS, Shona (NHS NATIONAL SERVICES SCOTLAND) [redacted]; LOCKHART, Michael (NHS NATIONAL SERVICES SCOTLAND) [redacted]; allison.wood [redacted]; Josephine Ives [redacted]; Shepherd, Lesley [redacted]; Rachael.Dunk [redacted]; LONGSTAFF, Jenny (NHS NATIONAL SERVICES SCOTLAND) [redacted]; HOOKER, Emma (NHS NATIONAL SERVICES SCOTLAND) [redacted]; UNZURRUNZAGA, Garazi (NHS NATIONAL SERVICES SCOTLAND) [redacted]; Billy Wright [redacted]; RITCHIE, Lisa (NHS NATIONAL SERVICES SCOTLAND) [redacted]; MCINTYRE, Jackie (NHS NATIONAL SERVICES SCOTLAND) [redacted]
Cc: FRENCH, Sofie (NHS NATIONAL SERVICES SCOTLAND) [redacted]; DODD, Susie (NHS NATIONAL SERVICES SCOTLAND) [redacted]; Bowskill Gillian (NHS GREATER GLASGOW & CLYDE) [redacted]; STORRAR, Ian (NHS NATIONAL SERVICES SCOTLAND) [redacted]; Gibson, Brenda [redacted]; Murphy, Dermot [redacted]
Subject: Re: [ExternaltoGGC]Re: HIIAT RED QEUHa

The chair did not agree to be replaced to review the incident, results , actions. The chair was asked to demit due to feedback from everyone at the last IMT that the meeting was difficult . This however was not corroborated at the IMT today by senior clinicians ,HPS or the microbiologists who were present .

Kind regards

Teresa

Dr Teresa Inkster
Lead Infection Control Doctor NHSGGC
National Training Programme Director Medical Microbiology
Dept of Microbiology
Queen Elizabeth University Hospital
Glasgow
Direct dial : [redacted]

From: Devine, Sandra [redacted]
Sent: 23 August 2019 17:11
To: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND); RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND); Birch, Jason (SGPU); Elizabeth Burgess; WILSON, Julie (NHS NATIONAL SERVICES SCOTLAND); Mediarelations (NHS NATIONAL SERVICES SCOTLAND); MULLINGS, Abigail (NHS NATIONAL SERVICES SCOTLAND); IMRIE, Laura (NHS NATIONAL SERVICES SCOTLAND); THOULASS, Janine (NHS NATIONAL SERVICES SCOTLAND); WALLACE, Heather (NHS NATIONAL SERVICES SCOTLAND); HPSINFECTIONCONTROL (NHS NATIONAL SERVICES SCOTLAND); BOSWELL, Catherine (NHS NATIONAL SERVICES SCOTLAND); CAIRNS, Shona (NHS NATIONAL SERVICES SCOTLAND); LOCKHART, Michael (NHS NATIONAL SERVICES SCOTLAND); allison.[redacted]; Josephine Ives; Shepherd, Lesley; Rachael.Dunk[redacted]; LONGSTAFF, Jenny (NHS NATIONAL SERVICES SCOTLAND); HOOKER, Emma (NHS NATIONAL SERVICES SCOTLAND); UNZURRUNZAGA, Garazi (NHS NATIONAL SERVICES SCOTLAND); Billy Wright; RITCHIE, Lisa (NHS NATIONAL SERVICES SCOTLAND); MCINTYRE, Jackie (NHS NATIONAL SERVICES SCOTLAND)
Cc: FRENCH, Sofie (NHS NATIONAL SERVICES SCOTLAND); DODD, Susie (NHS NATIONAL SERVICES SCOTLAND); INKSTER, Teresa (NHS GREATER GLASGOW & CLYDE); Bowskill Gillian (NHS GREATER GLASGOW & CLYDE); STORRAR, Ian (NHS NATIONAL SERVICES SCOTLAND)
Subject: Re: [ExternaltoGGC]Re: HIIAT RED QEUH

I do have some comments - thanks

Chair agreed to be replaced in order for her to have time to review incident, results and actions. Other ICDs on the site were asked to chair and declined. National guidance confirms that it is appropriate for a CPHM to chair an IMT.

Just to be clear, the cases referred to in the first paragraph was in another ward and had been in that ward for 42 days prior to BC positive.

Last case was 2 August.

I have cc Emilia who was the chair in case she has additional comments.

Thanks
Sandra

Sent from my BlackBerry 10 smartphone on the EE network.

From: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND)
Sent: Friday, 23 August 2019 16:46
To: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND); Birch, Jason (SGPU); Elizabeth Burgess; WILSON, Julie (NHS NATIONAL SERVICES SCOTLAND); Mediarelations (NHS NATIONAL SERVICES SCOTLAND); MULLINGS, Abigail (NHS NATIONAL SERVICES SCOTLAND); IMRIE, Laura (NHS NATIONAL SERVICES SCOTLAND); THOULASS, Janine (NHS NATIONAL SERVICES SCOTLAND); WALLACE, Heather (NHS NATIONAL SERVICES SCOTLAND); HPSINFECTIONCONTROL (NHS NATIONAL SERVICES SCOTLAND); BOSWELL, Catherine (NHS NATIONAL SERVICES SCOTLAND); CAIRNS, Shona (NHS NATIONAL SERVICES SCOTLAND); LOCKHART, Michael (NHS NATIONAL SERVICES SCOTLAND); allison.wood[redacted]; Josephine Ives; Shepherd, Lesley;

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Subject: [ExternaltoGGC]Re: HIIAT RED QEUH

Dear all,

HPS have received an updated HIIORT from
NHSGGC following an IMT held earlier today.

In summary
Patient Cases:
· No new patient cases reported. 1 possible case reported in the last update has now been removed from the case numbers. This patient had a gram positive bacteraemia identified following a sewage leak within the patients room.
Total reported cases: 11 + 1

Case definition revised:
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Control measures/Investigations:
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An independent environmental review/walkround will be carried out by HPS Friday 30th August.

NHSGGC have replaced the IMT chair from the Lead ICD to NHSGGC deputy director of public health

HIIAT reassessed as RED. This is as a result of impact to service now described as MAJOR.

Next planned IMT will be held on 02.09.19 however an updated HIIORT will be provided later next week.

Teresa/Gillian/Sandra please advise of any errors or omissions

Annette

Sent from my iPhone

On 15 Aug 2019, at 14:31, RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND) [redacted] wrote:

Dear all

HPS have received an updated HIIORT from NHS GGC following an IM T held yesterday.

In summary:

Patient Cases:

- 1 new possible patient case (GNB) reported since last update. This is a retrospective case with an unusual organism : Total reported cases = 11 +2

Case definition revised:

Any patient (ward 6A: [redacted]) with a bloodstream infection from an organism who's source is water or soil i.e. environmental organisms.

Control measures/Investigations:

- Point of use filters remain in place throughout ward 6a and across this patient cohorts pathway
- Weekly drain cleaning continues
- The ward remains closed to NEW admissions with admissions currently being diverted to Edinburgh and Grampian
- Existing patients will be admitted on a case by case review basis.
- Repeat samples taken from chilled beams within the ward were reported as :
    1. Hot water negative
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- Enhanced supervision will continue weekly
- Fungi has been reported from some swabs taken from the chilled beams. Further swabs to be obtained
- Further peer audit of line flushing in Ward 6a, Day Care and OPD.
- Review of taps in DSR (which are currently unfiltered with control measures in place) with a view to replacing the taps
- Options appraisal on potential relocation options to be undertaken

HIIAT reassessed as AMBER

Next planned update following IMT which will be held next week on 14.08.19

Teresa/Gillian/Sandra please advise of any errors or omissions

Annette

From: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND)
Sent: 09 August 2019 15:00
To: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND); allison.wood[redacted]; Billy Wright ; Birch, Jason (SGPU); BROWN, Claire (NHS NATIONAL SERVICES SCOTLAND); CAIRNS,

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Subject: RE: HIIAT RED QEUH

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HPS have received an updated HIIORT from NHSGGC following an IMT held yesterday afternoon

In summary

Patient Cases:

- 2 new patient cases (GNB) reported since last update. 1 confirmed case and 1 possible case. Total reported cases = 11 +1

- No new Mycobacterium chelonae cases reported: Total reported cases = 2 (There will be no further reporting on these cases unless the situation changes)

- Both new reported cases remain inpatients. 1 [redacted] is reported as being unwell and was giving cause for concern, requiring transfer to [redacted] however is now back in the ward and reported to be improving.

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- Point of use filters remain in place throughout ward 6a and across this patient cohorts pathway
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- 4 water samples taken from chilled beams within the ward were reported as :
    1. Hot water negative
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- Further air sampling in 3 rooms has been reported as positive gram negative organisms
- Swabs taken from chilled beams isolated environmental gram negative organisms
- Enhanced supervision, hand hygiene, SICPS and peer line access audits all completed with no significant issues reported.
- Repeat air sampling and chilled beam sampling to be undertaken
- Enhanced supervision of ward to continue weekly

HIIAT reassessed and remains RED
Severity of illness –Major
Impact on services – Moderate
Risk of Transmission – Moderate
Public Anxiety – Moderate

Next planned update following IMT on 14.08.19

Teresa/Gillian/Sandra please advise of any errors or omissions

Annette

From: RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND)
Sent: 02 August 2019 14:40
To: allison.wood[redacted]; Billy Wright ; Birch, Jason (SGPU); BROWN, Claire (NHS NATIONAL SERVICES SCOTLAND); CAIRNS, Shona (NHS NATIONAL SERVICES SCOTLAND); BOSWELL, Catherine (NHS NATIONAL SERVICES SCOTLAND); Rachael.Dunk[redacted]; Elizabeth Burgess ; HOOKER, Emma (NHS NATIONAL SERVICES SCOTLAND); HPSInfectionControl (NHS National Services Scotland); IMRIE, Laura (NHS NATIONAL SERVICES SCOTLAND); Josephine Ives; LOCKHART, Michael (NHS NATIONAL SERVICES SCOTLAND); LONGSTAFF, Jenny (NHS NATIONAL SERVICES SCOTLAND); MCINTYRE, Jackie (NHS NATIONAL SERVICES SCOTLAND); Mediarelations (NHS NATIONAL SERVICES SCOTLAND); MULLINGS, Abigail (NHS NATIONAL SERVICES SCOTLAND); RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND); RITCHIE, Lisa (NHS NATIONAL SERVICES SCOTLAND); Shepherd, Lesley ; THOULASS, Janine (NHS NATIONAL SERVICES SCOTLAND); UNZURRUNZAGA, Garazi (NHS NATIONAL SERVICES SCOTLAND); WALLACE, Heather (NHS NATIONAL SERVICES SCOTLAND); WILSON, Julie (NHS NATIONAL SERVICES SCOTLAND)
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Patient Cases:

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- No new Mycobacterium chelonae cases reported: Total reported cases = 2
  GNB:
- Micro-organisms associated with new cases: Chryseomonas, Pseudomonas putida, Elizabeth kingea, enterobacter. It was recognised and agreed that whilst the number of GNB bacteraemia over the time period may not be greater than expected, the nature of the micro-organisms (environmental gram negatives) are not what would be expected.
- Both new reported cases remain inpatients. 1[redacted] is reported as being unwell and giving cause for concern.

Control measures:

- Point of use filters remain in place throughout ward 6a and across this patient cohorts pathway
- Weekly drain cleaning continues
- The ward will be closed to NEW admissions (2 patients have been diverted to Edinburgh)
- Existing patients will be admitted on a case by case review basis.
- A clinical meeting, supported by IPCT and Management will be held on Friday (2/8/19)

Hypothesis:

Following discussion it was agreed that the likely hypothesis is exposure to an environmental organisms (likely water organism) exact source unknown.

Further investigations/Discussion

Point of use filters

It was previously reported that there was a potential filter failure. On further investigation this is reported as a labelling error and not a filter failure. In addition PALL have confirmed the filter integrity. It was agreed that as a control measure this has not failed.
Drain cleaning: weekly drain cleaning continues and it is reported that drains are visibly clean. It was agreed that as a control measure this has not failed.
As the hypothesis is currently that there has been exposure to environmental organisms via an unknown/unconfirmed source, some additional investigations were agreed, including

Chilled beams

it was reported that on occasion some “drips” were noted from the chilled beams. Testing was undertaken for atypical mycobacteria with negative results. Sampling will be undertaken for gram negative bacteria. Results are anticipated by Wednesday afternoon. Cleaning of chilled beams in the ward will be undertaken. Further work to be undertaken on the possibility of chilled beams being removed.

Toilet seats:

Currently there are no lids on the toilet seats and was an agreed control measure being applied to Wards 2a/b (RHC) as part of the ongoing works. It was agreed that toilet lids would be fitted in the ensuite toilets in ward 6A.

Prohylaxis:

Additional prophylaxis was discussed (in addition to current anti-fungal prophylaxis). It was agreed that prophylactic ciprofloxacin would be considered, recognising the risks associated.

Chlorine dioxide dosing:

Consideration would be given to increasing the level of continual chlorine dioxide dosing underway.

Air sampling:

Air sampling has been undertaken. Portable hepa filters are in place in bedrooms but not in ensuite. Low numbers of pathogenic fungi (aspergillus, mucoraceous mould)have been isolated from a number (4) of ensuite bathrooms. Repeat air sampling will be undertaken.

Odour:

Investigations are underway to identify the source of a “smell” reported mainly associated with the prep room.

Central line care:

Significant work has been undertaken since the opening of RHC. Regular review of central line care is undertaken and no concerns noted. It was agreed that a further additional review would be undertaken including peer audit by practice educators.

IPC practice:

SICPS audit and hand hygiene audits will continue

Communications

A decision on press release (holding/reactive) will be taken following the clinical meeting on 2/8/19. Once this decision has been taken, parent communications will be reviewed.

HIIAT reassessed as RED
Severity of illness –Major
Impact on services – Moderate
Risk of Transmission – Moderate
Public Anxiety – Moderate

HPS/HFS support has been requested.

Next planned update: following IMT on 8/8/19 (deferred until then to ensure sampling results are available) unless the situation changes.

Teresa/Gillian/Sandra
Please advise of any errors or omissions

[redacted]

Annette Rankin
Nurse Consultant Infection Control

NHS National Services Scotland
Health Protection Scotland
4th Floor
Meridian Court
5 Cadogan Street
Glasgow
G2 6QE
T: [redacted]
Reception: [redacted]
www.hps.scot.nhs.uk/

From: Annette Rankin
To: Paul Chapple
Cc: Laura Imrie
Subject: 5333 FW: [ExternaltoGGC]Re: HIIAT RED QEUHh
Date: 12 September 2024 19:13:27
Attachments: image001.gif

Hi Paul
The first of 2 emails for the inquiry team regarding the change of chair that they have asked for Annette

Begin forwarded message:

From: "RANKIN, Annette (NHS NATIONAL SERVICES SCOTLAND)" [redacted]
Date: 23 August 2019 at 17:22:36 BST
To: "Devine, Sandra" [redacted]
Cc: "Birch, Jason (SGPU)" [redacted], Elizabeth Burgess [redacted], "WILSON, Julie (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "Mediarelations (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "MULLINGS, Abigail (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "IMRIE, Laura (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "THOULASS, Janine (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "WALLACE, Heather (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "HPSINFECTIONCONTROL (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "BOSWELL, Catherine (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "CAIRNS, Shona (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "LOCKHART, Michael (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "allison.wood[redacted]" [redacted], Josephine Ives [redacted], "Shepherd, Lesley" [redacted], "Rachael.Dunk[redacted]" [redacted], "LONGSTAFF, Jenny (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "HOOKER, Emma (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "UNZURRUNZAGA, Garazi (NHS NATIONAL SERVICES SCOTLAND)" [redacted], Billy Wright [redacted], "RITCHIE, Lisa (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "MCINTYRE, Jackie (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "FRENCH, Sofie (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "DODD, Susie (NHS NATIONAL SERVICES SCOTLAND)" [redacted], "INKSTER, Teresa (NHS GREATER GLASGOW & CLYDE)" [redacted], "Bowskill Gillian (NHS

GREATER GLASGOW & CLYDE)" [redacted],
"STORRAR, Ian (NHS NATIONAL SERVICES SCOTLAND)"
[redacted]
Subject: Re: [ExternaltoGGC]Re: HIIAT RED QEUH

Thanks for the clarification Sandra
The reference to the chair was a factual statement made for information. The rationale and discussion relating to the decision for replacing the chair is a matter for the minutes to reflect today's discussion.

The reference to the case was made to explain why this possible case was no longer being considered within this cohort however as agreed today was considered a case as part of another incident. Again this will be reflected in the minutes and I did state today that I would explain in my update why they were no longer considered a case. Apologies I didn't make it clear this case was being attributed to ward 4B.
I hope this clarifies things, let me know if you, Gillian or Teresa have any additional comments
Many thanks
Annette
Sent from my iPhone

On 23 Aug 2019, at 17:11, Devine, Sandra
[redacted] wrote:

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Consideration would be given to increasing the level of continual chlorine dioxide dosing underway.

Air sampling:

Air sampling has been undertaken. Portable hepa filters are in place in bedrooms but not in ensuite. Low numbers of pathogenic fungi (aspergillus, mucoraceous mould)have been isolated from a number (4) of ensuite bathrooms. Repeat air sampling will be undertaken.

Odour:

Investigations are underway to identify the source of a “smell” reported mainly associated with the prep room.

Central line care:

Significant work has been undertaken since the opening of RHC. Regular review of central line care is undertaken and no concerns noted. It was agreed that a further additional review would be undertaken including peer audit by practice educators.

IPC practice:

SICPS audit and hand hygiene audits will continue

Communications

A decision on press release (holding/reactive) will be taken following the clinical meeting on 2/8/19.

Once this decision has been taken, parent communications will be reviewed.

HIIAT reassessed as RED
Severity of illness –Major
Impact on services – Moderate
Risk of Transmission – Moderate
Public Anxiety – Moderate
HPS/HFS support has been requested.
Next planned update: following IMT on 8/8/19 (deferred until then to ensure sampling results are available) unless the situation changes.
Teresa/Gillian/Sandra
Please advise of any errors or omissions
<image001.gif>

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SCOTTISH HOSPITALS INQUIRY

Bundle of documents for Oral hearings commencing from 19 August 2024 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Bundle 27 - Miscellaneous Documents - Volume 11

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