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 – Volume 14
Miscellaneous Documents

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From: Sinclair, Beth [redacted]
Sent: 06 September 2024 14:42
Subject: Fw: New GNB 6a for question 88
Attachments: April 09.04.20.docx; GNB Timeline Jan - Mar - April2020 (2).docx; HIIORT 09.04.20.docx; updated-2020_04_09_SPC charts_GNBC_Paed haem-onc.docx

From: Devine, Sandra [redacted]
Sent: Thursday, 9 April 2020 17:13
To: Lesley.Shepherd[redacted]; [redacted]
Cc: 'WALLACE, Angela (NHS FORTH VALLEY)'
Subject: New GNB 6a

Hi Lesley
Sorry I tied to give you a bell but will try again in a while. We had a gram negative bacteraemia reported last night in 6a and this was the second in 2 weeks so triggers an IMT today. I have attached the HIIORT. Updated SPC, enhanced supervision report and time line. The minutes of the IMT will be available on Tuesday. Al was the chair. I'm happy to report to any questions re the situation or information I have sent to you. Both children's parents were informed. Holding press lines have been prepared. Both of the children are stable and not giving cause for concern. HIIORT sent to HPS and I have spoken to Susie.

Kind regards
Sandra

Sandra Devine
Acting Infection Control Manager
NHS Greater Glasgow & Clyde
[redacted]

If you require an urgent response can I please ask you to telephone me as I am often in meetings and away from the office and unable to check voicemail until the end of the day. Thank you

Enhanced Supervision

Carried out by: G Bowskill, E Somerville

Date and Time Visited: 09 / 04 /20 @ 11.00am

Ward: 6A	Standard Met			Comments	Discussed with	Action Taken/ Completion Date	Name/ Designation
	Yes	No	N/A				
Check the environment is clean, clutter free, access to CHWBs is clear and CHWBs are free from toiletries.		√		No Domestic issues Estates- minor wall damage Room 5.	Email sent to W Madden		
Choose 4 random pieces of near patient equipment and check equipment is clean and in a good state of repair for example IV stands, BP machine, linen trolley.		√		1 x IV pump not visibly clean in store room.	E Somerville		
Check staff are using PPE appropriately.	√						
Check Hand hygiene is performed appropriately (i.e. With soap and water when dealing with patients with loose stools) and at each of the WHO 'Your 5 moments for hand hygiene'.	√			Opportunities Taken score was 100%. Combined Compliance score was 100%.			

Ward: 6A	**Standard Met**			**Comments**	**Discussed with**	**Action Taken/ Completion Date**	**Name/ Designation**
	YES	**NO**	**N/A**				
Check patients with loose stools have a bowel chart in place with bowel activity being recorded in line with the Bristol stool chart and a loose stool care plan in place.			**√**				
Monitor the method by which, staff take IV meds to the patient. Is it by suitable means i.e. a trolley or dedicated tray (not a sharps tray or carried inside sterile wrapper).	**√**						
Are parents adhering to good hand hygiene when entering the shared areas i.e. kitchen, play room?			**√**	Parent areas and play room closed due to COVID			
Check correct colour coded cloths available to Domestics?	**√**						
Check CVC Care Plans are in place and fully up to date.		**√**		1 x CVC chart – Missing checks for 2 days (not child with GNB)	E Somerville		

Timeline – GNB Mar – Apr 2020

Patient	DOA/DOD	Positive Site	Organism	Date 1st Positive	HAI	Specimen Number	Typing
1	[redacted].03.20 - present	Blood Culture	*Klebsiella pneumoniae*	28.03.20	N (HCAI)	[redacted]	
2	[redacted].10.19 - Present	Blood Culture	*Enterobacter cloacae*	07.04.20	Y 6a	[redacted]	

Rooms	
Day Care	
Ward 6a	
CDU	
PICU	

+ve – Positive Isoalte

D - Discharged

March 2020

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Patient 1																25	25	25	25	25	24 D							+V E	12	12
Patinet 2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	7

April 2020

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Patient 1	12	12	12	26	26	26	26	26	26																						
Patinet 2	7	7	7	7	7	7	7 +ve	7	7																						

Mandatory - Healthcare Infection, Incident and Outbreak Reporting Template (HIIORT)

Initial assessment to be completed within 24 hours for all HIIAT Red and Amber; for HIIAT Green complete only if HPS Support requested.

Section 1 :Contact Details	
NHS Board/Care organisation	Greater Glasgow and Clyde
Date and time of reporting	09.04.20 @4pm
Person Reporting and designation	Lead IPCN Gillian Bowskill / Prof A Leanord
Telephone number and email	[redacted]
Section 2: Infection Incident/outbreak Details	
Care facility/hospital	Queen Elizabeth University Hospital
Clinical area/ward and speciality	Ward 6A – Currently occupied by decanted paediatric Haemato-oncology population (Inpatient and day care services)
Section 3: Initial assessment	
Type: Incident/outbreak/ data exceedance e.g. Gastrointestinal, decontamination failure	2 Gram negative bacteraemia within a 2 week period. 1 HAI and 1 HCAI
Infectious agent known or suspected	*Klebsiella pneumoniae*, *Enterobacter cloacae*
Case definition	Any patient with a bloodstream infection from a Gram negative organism.

Date of first case (if applicable)	28.03.20		
Total number of confirmed patient cases: 2	Total number of probable patient cases: 0	Total number of possible patient cases: 0	Total number of staff cases: 0

Number of patients giving clinical cause for concern as a consequence of this incident/outbreak	None. All well at time of IMT
Number of deaths as a consequence of this incident/outbreak	Nil
Was the infectious agent cited as a cause of death on a **death certificate*** **(**if yes, state which part of the certificate**)**	N/A
Are infection prevention and control measures as per National Infection Prevention and Control Manual (NIPCM) implemented? If not, state reason.	Yes
Has additional information regarding this Incident/outbreak i.e. leaflets been provided to patients/relatives. Provide details:	No

Additional Information:
The 2 Gram negative isolates are different species. Both were obtained within a 2 week period.

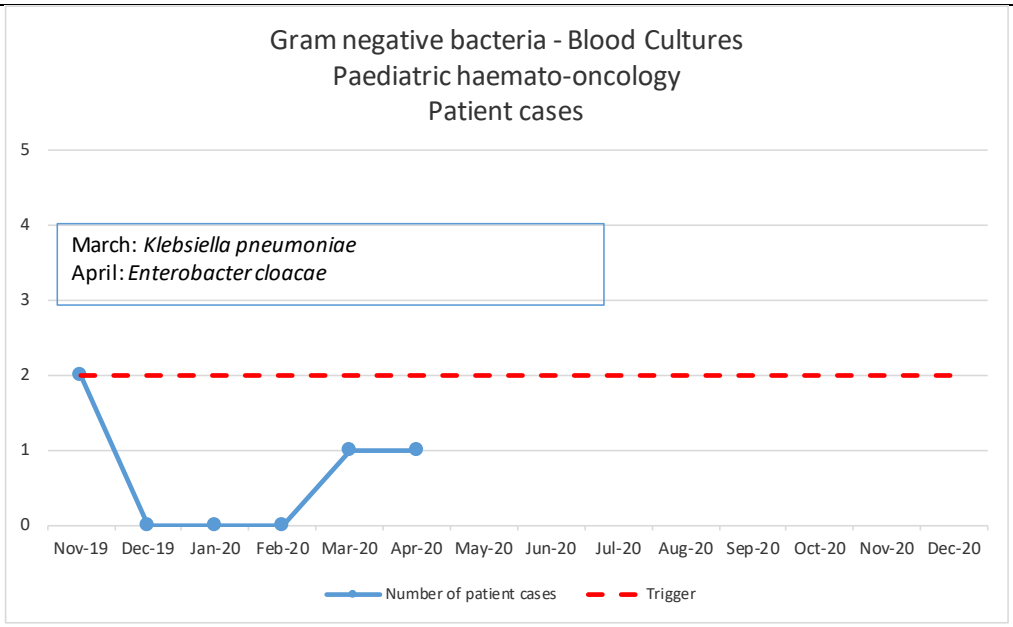
Section 4: Healthcare Infection Incident Assessment Tool (HIIAT) (link to tool)		
Severity of illness	Minor/Moderate/Major	Moderate
Impact on services	Minor/Moderate/Major	Minor
Risk of transmission	Minor/Moderate/Major	Minor
Public anxiety	Minor/Moderate/Major	Moderate
HIIAT Assessment	Red Amber Green	Amber
Section 5: Organisational Arrangements		
PAG/IMT meeting held	Yes - IMT	Date: 09.04.20 Chair: Prof A Leanord
Next planned IMT	Yes –	Date: 16.04.20 @ 2.30pm
Press statement (proactive press statements **must** be sent with HIIORT)	Proactive N	***Must*** *be sent prior to release*
	Release N	*Direct to SG comms within 48hrs*
	Holding Y	*Direct to SG comms within 48hrs*
HPS support requested	No	Date.....09.04.20.....
Other information: e.g. decisions from IMT		

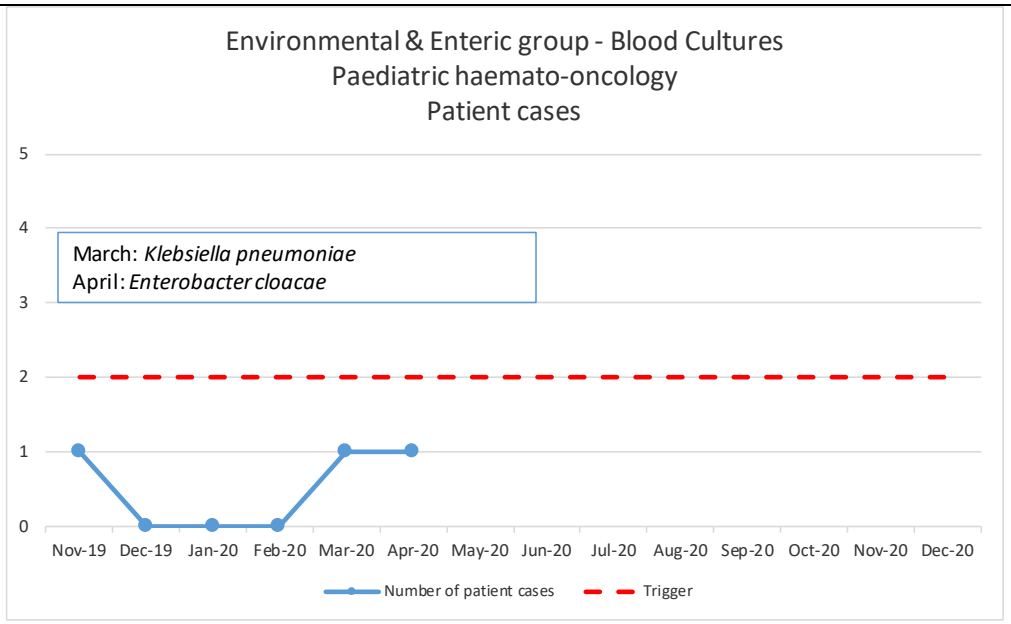
Complete this section if:
Red: complete daily or as agreed between IMT and HPS (a minimum of weekly)
Amber: complete twice weekly or as agreed between IMT and HPS (a minimum of weekly)
Green: complete if HPS support required (a minimum of weekly)

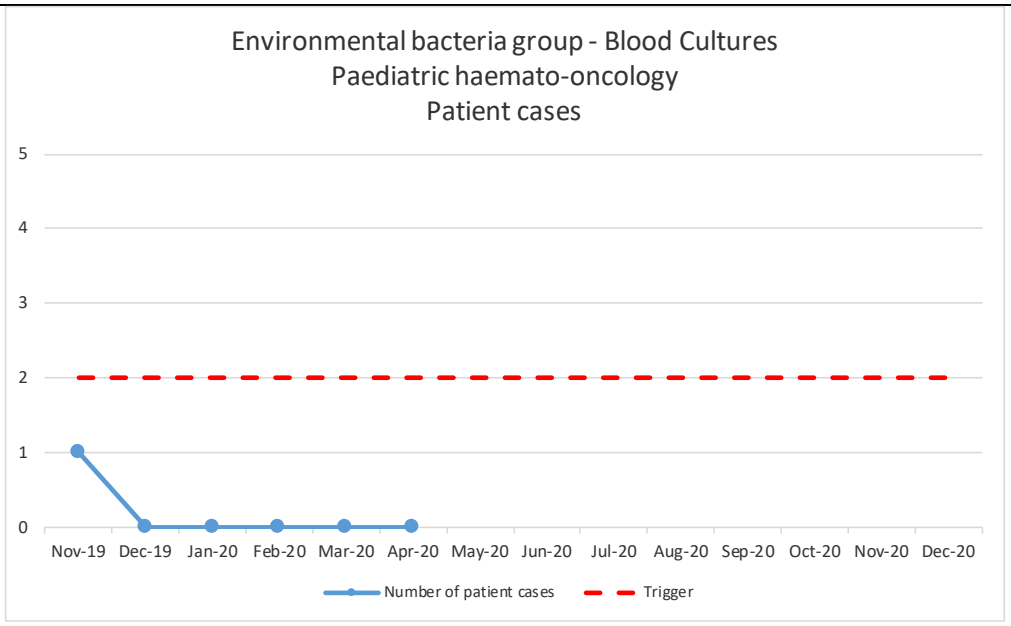
Section 6: Update						
On this date:	09.04.20					
Cumulative total of confirmed patient cases	2					
Cumulative total of probable patient cases	0					
Cumulative total of possible patient cases	0					
Cumulative total of staff cases	0					
Total number of symptomatic patients today	0					
Number of patients giving cause for concern	0					
Total number of deaths as a consequence of the incident since last HIIORT report	0					
Is the ward/services closed	No					
Is a service restricted	No					
HIIAT assessment	Amber					

Organisation update certification information)	*Comments (including changes to any control measures, case definition or death)*
Date: 09.04.20	IMT held today 09.04.20 HIIAT Green Severity of illness – Moderate Impact on Services – Minor Risk of Transmission – Minor Public Anxiety – Moderate Situation – 2 Gram negative bacteraemia isolated in 2 paediatric Haemato oncology patients within a 2 week period. Hypothesis – Line related infection. Case 1 – *Klebsiella pneumoniae* 28.03.20 (HCAI) Case 2 – *Enterobacter cloacae* 07.04.20 (HAI) Actions undertaken – • Enhanced supervision visit carried out today 09.04.20. • Hand Hygiene audit carried out today 09.04.20. • Route cause analysis has been carried out for both cases. • Parents of both cases have been advised of GNB by clinical staff. Actions planned – • Line audit will be carried out by RHC nurse educator tomorrow. • Professor Leanord will check antibiograms for any patterns. • Typing will not be carried out due to suspension of typing by PHE due to COVID. • Holding press statement will be prepared. Next IMT planned for Thursday 16th April

ONCE COMPLETED, EMAIL TO: [redacted]


Gram negative bacteria - Blood Cultures
Paediatric haemato-oncology
Patient cases
5
4
3
2
1
0
March: Klebsiella pneumoniae
April: Enterobacter cloacae
Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20
Number of patient cases
Trigger


Environmental & Enteric group - Blood Cultures
Paediatric haemato-oncology
Patient cases
5
4
3
2
1
0
March: Klebsiella pneumoniae
April: Enterobacter cloacae
Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20
Number of patient cases
Trigger

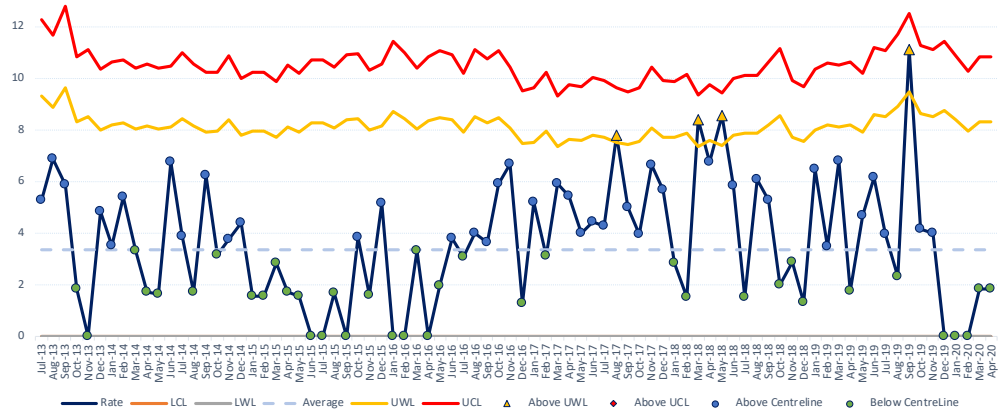

Environmental bacteria group - Blood Cultures
Paediatric haemato-oncology
Patient cases
5
4
3
2
1
0
Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20
Number of patient cases
Trigger

SPC Chart - Gram-Negative

RHC/QEUH
Paediatric haemato-oncology blood cultures
Rate per 1,000 local bed days

NHS Greater Glasgow and Clyde

Chart comment: March & April 2020 - estimate of bed days based on past three months (Dec-19 - Feb 20).

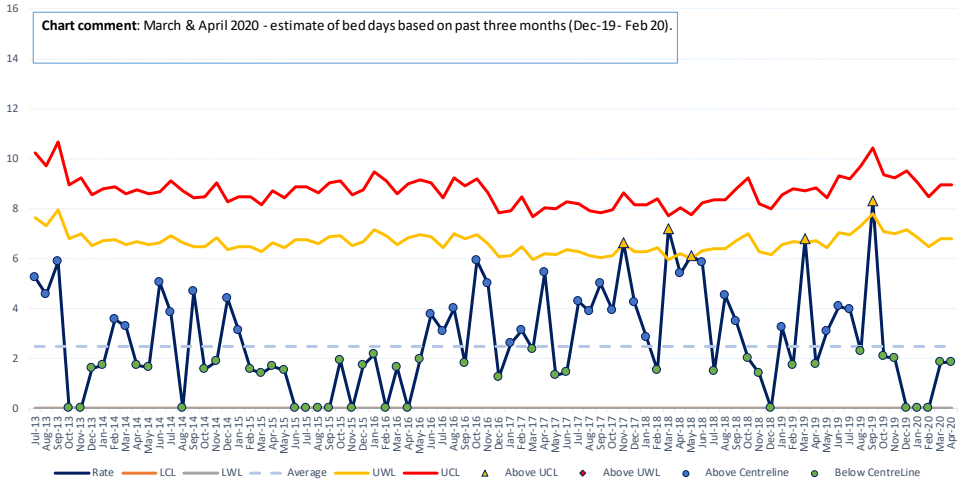


SPC chart - Environmental and Enteric group

RHC/QEUH
Paediatric haemato-oncology blood cultures
Rate per 1,000 local bed days

NHS Greater Glasgow and Clyde

Chart comment: March & April 2020 - estimate of bed days based on past three months (Dec-19 - Feb 20).



SPC Chart - Environmental Group

RHC/QEUH
Paediatric haemato-oncology blood cultures
Rate per 1,000 local bed days

NHS Greater Glasgow and Clyde

Chart comment March & April 2020 - estimate of bed days based on past three months (Dec-19 - Feb 20).
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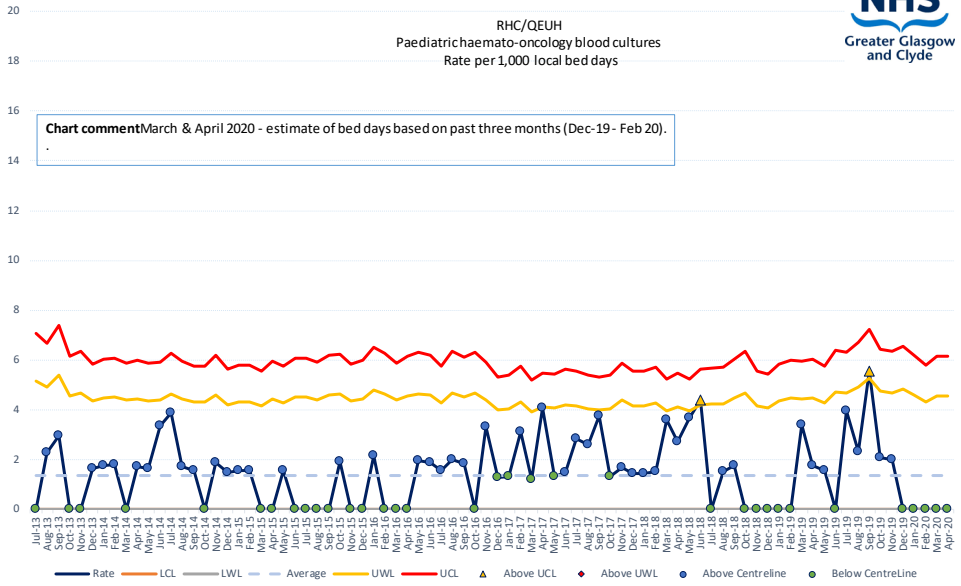

NHS Greater Glasgow and Clyde	**NHS Greater Glasgow & Clyde** **Infection Prevention and Control Team**
Purpose:	Problem Assessment Group (PAG)
From:	Infection Prevention and Control Team
To:	IPCT SMT/Clinical Team
Date:	22/01/21
Subject/ situation:	Gentamicin Resisitant MSSA
Background:	Typing result received from a baby who was a newly identified HAI Gentamicin resistant MSSA colonisation on [redacted]/12/20. The baby was born at RHC with a cardiac anomaly. Baby [redacted] DOA: [redacted]/11/20 [redacted]/12/20: [redacted] The isolate was sent for typing, however the reference lab was unable to determine a spa type. A repeat attempt at typing was successful and on 20/01/21 the IPCT were informed of the spa type: t1684, clonal complex CC8, which matches the spa types of 3 other cases in NICU that occurred during a previous increased incidence in August/ September 2020 for which an IMT was held on 5/10/20. Incident closed 10/11/20. The last positive HAI case in NICU prior to 06/12/20 occurred on [redacted]/09/20. The case from [redacted] December has a time and bed bay association of 5 days with a previously positive case from the increased incidence occurring in August/ September. The patient from the previous increased incidence has been nursed in SCBU since [redacted]/12/20. Transmission based precautions were discontinued for this patient on [redacted]/10/20 following 2 Gentamicin sensitive MSSA positive mouth swabs; and the patient has remained negative and remains as an in-patient in SCBU. IPCT / ICD agreed at the time of the new positive, in December, to review the situation if further cases were identified or typing of the new case, was returned the same as previous cases. Additional Information [redacted]/01/21: SCN informed IPCT of a staff member with a persistent Staphylococcus aureus ear infection since March 2020. The staff member ceased work from [redacted] January 2021, on the advice of Occupational Health, and will not return until the infection has been successfully treated.

Discussed with/ Communications:	Dr Colin Peters, Dr AM Heuchan, Dr Jennifer Mitchell, Dr Lynsey Still, P Friel, M Liddell, J Heggie (via E-mail) <u>Hypothesis :</u> Probable cross transmission, original source unknown. Possible cross transmission from staff or a positive baby from a previous increased incidence. <u>Duty of Candour :</u> The medical staffs have discussed previous positive results with parents. Medical staff unaware of result of the last positive case as the baby had already been [redacted] before the result was known. IPCT, RHC informed [redacted] IPCT.
Hospital Infection Incident Assessment Tool (HIIAT)	HIIAT – Not required
Recommendation/ options:	Triggers set for progression to IMT: Any new acquisition, colonisation or infection, with a Gentamicin resistant MSSA of spa type t1684, clonal complex CC8. • Isolate from December to be sent for whole genome sequencing • Enhanced cleaning ongoing in the unit • Ongoing surveillance monitoring by IPCT No further actions.
IPCT Members	Dr A Balfour – Infection Control Doctor Angela Johnson – Senior Infection Prevention and Control Nurse

Incident Management Team Meeting
Gent Resistant MSSA Cases, NICU, RHC
Monday 5th October 2020
10:30am
Microsoft Teams

Present:

Dr Kalliopi Valyraki (Chair)	Infection Control Doctor
Angela Johnson	Senior Infection Control Nurse
Morag Liddell	Senior Charge Nurse
Patricia Friel	Lead Nurse
Jamie Redfern	General Manager
Jen Rodgers	Chief Nurse, Paediatrics and Neonates
Kate Hamilton	Acting Nurse Consultant IPC
Ann Marie Heuchan	Doctor
David MacDonald	Facilities Manager
Euan Smith	Estates Manager
Darryl Conner	Site Manager Operational Estates
Heather Wallace	Nurse Consultant, HPS
Neil Mcseveny	Senior Communications Officer
Sharon Johnstone	Deputy Site Facilities Manager
Rona Wall	Occupational Health Service Manager

In Attendance:

Ann Lang (minutes)	PA/Data Manager, IPC

Apologies Received:

Gillian Bowskill	Lead Nurse, IPC
Judith Simpson	Consultant Neonatologist

		ACTION
1.	**Introduction**	
	Dr Valyraki welcomed everyone to the meeting, introductions were made and apologies were received from the above mentioned.	
2.	**Reminder of Confidentiality**	
	The group were reminded of the need for patient confidentiality.	
3.	**Situation Statement**	
	At the last PAG it was reported that there were 4 HAI Gentamicin Resistant MSSA isolates with matching antibiograms in a four week period in NICU, RHC. Two of these isolates have matching Spa Types. It was agreed at the PAG that if there was a further colonisation or bacteraemia with a Gentamicin resistant MSSA within a 2 week period, an IMT would be held.	

		ACTION
	Update of Actions from last meeting	
	Repeat Hand Hygiene Audit The hand hygiene audit was repeated on 30th September with 100% result for opportunities and 100% result for the overall swab. Line Audit to be carried out Patricia Friel reported that a line audit was carried out last Friday and provided the following update:- - 5 Staff Nurses were observed accessing vascular access devices and administering intravenous IV medication. This was a combination of peripheral access devices and central venous access devices. - 18 episodes of hand hygiene was observed. 9 of these were deemed effective and 9 missed hand hygiene opportunities. There were 7 episodes where hands were gelled between 5 and 10 seconds and hands not allowed time to dry and 2 episodes where hands were washed for 10 and 15 seconds. - All 5 nurses used detergent wipes to clean trolley but did not allow time to dry before setting up sterile field. - 4 members of staff donned aprons prior to hand washing, this should be done after washing hands. - 1 member of staff placed pre made IV medication half on sterile field and half on trolley surface and did not clean prior to placing on field after medication having touched several surfaces that were not sterile. It was agreed that the nurse educators will carry out targeted education and a further audit will be carried out in a week's time. Routine weekly screening of babies will continued The weekly screening of babies is being carried out. Any further cases will be sent to the Reference Lab for typing. Dr Valyraki agreed to follow up the outstanding results. Reference Lab will be contacted to determine if this strain is prevalent in the community Dr Valyraki confirmed that Dr Balfour has spoken with the Reference Lab and advised this is low prevalence in the community. Neonatal service to review the literature around skin cleansing Dr Heuchan stated that she could not really find any literature. The only thing she did see was one academic abstract which had introduced skin cleansing but had also introduced hand hygiene in unit at the same time so results were ambiguous. She said she has contacted Chris Lilley, Neonatal Consultant at PRM for information and is awaiting a response. Staffing Levels Occupancy data extracted from Badger for the period 2/08/20 to 30/09/20 was 54.1% to 82.8%. The combined ICU/HDU cot occupancy ranged between 58.2% peaking to 94.6% on 28/09/20. ICU cot occupancy alone ranged between 37.5% and 107.8% on 28/08/20 which was a very busy period.	P Friel Dr Valyraki

		ACTION
	With regards to nursing staff the average nurses required on shift during this period according to BAPM was 21.03, the number of nurses on duty was 23.25. Patricia Friel said that the caveat is that there are very complex patients in ICU that require more than 1 to 1 care. Huddles are carried out every day to look at safety levels. The question was asked if there was a high proportion of staff transferred from PRM to assist and Patricia Friel replied that 5 staff transferred from PRM which included 3 registered nurses and 2 non registered nurses. Dr Heuchan pointed out that several laparotomy procedures were carried out which is a massive resource to do this and she feels this does not reflect on the numbers listed above. <u>Neonatal service will assess staff for any new skin condition</u> The unit also undertake annual skin surveillance and a further 6 staff were new referrals and referred to Occupational Health. Patricia Friel informed that there are approximately 160 full time equivalent staff which is a small proportion of staff being referred. <u>Neonatal service will review parent/visitor hand hygiene</u> Hand hygiene for parents is included in the Safety Brief and the Weekly Parent Brief. Morag Liddell said that all staff are aware that if they cannot wash their hands they are not to come to work. One staff member had a dog bite and was told to stay off work and if any staff have a skin condition to let their manager know. It was noted that all staff have masks on and are wearing enhanced PPE due to the Covid pandemic.	
	Patient Report	
	Dr Valyraki reported that there are 3 inpatients at present, with a new case identified from a mouth swab on [redacted] September 2020. Two patients are inpatients in NICU and one patient is in SCBU One of the patient's family is keen for the patient to be transferred to [redacted] and Dr Heuchan asked if the patient and family should be decolonised if they were to be transferred. Jen Rodgers confirmed that two patients are well enough to do this and commented that if we decolonise patients there would be less risk of reservoir and suggested decolonising all 3 patients. Dr Valyraki asked if the parents are aware of the (possibility of decolonisation) situation and Dr Heuchan confirmed that the parents of the patients on level 1 are aware but not sure regarding the patient on level 2. Morag Liddell informed that all parents are aware that the patients are being treated with a specific organism but not sure if Gent Resistant MSSA has been discussed with them. Heather Wallace stated that we have a duty of candour to inform the parents and discussions should take place as this was an action from the Vale of Leven Inquiry to be open and transparent.	

		ACTION
	Dr Heuchan was concerned that Vale of Leven Inquiry had been mentioned and said this incident should not be compared to this as the Consultants are very communicative with parents/patients. It was agreed to wait for the typing results before decolonising the patients. Dr Heuchan and Morag Liddell can arrange for this to be carried out. Jen Rodgers advised that she is certain medical staff and the LIPCN spoke with the parents but need to ensure this is documented in the notes for the patients and Morag Liddell agreed to check the notes. Jen Rodgers also commented that Gillian Bowskill did speak to the family and Kate Hamilton will confirm this with Gillian. A parent leaflet was discussed and Kate Hamilton stated that she will look at the leaflet that was prepared for PRM to use as a template.	Dr Heuchan M Liddell M Liddell K Hamilton K Hamilton
	Microbiology Report	
	Dr Valyraki reported that typing results are still awaited for two patients.	
4.	**Hypothesis**	
	As no source could be identified it was agreed that the hypothesis remain the same as last time i.e.probable cross transmission, original source unknown. Babies with matching spa types had crossover in time and place.	
5.	**Further Investigations**	
	Jen Rodgers asked if she could be informed of the patient placement for these patients and if they are isolated. She also asked for confirmation that a deep clean of room 7 was carried out and Sharon Johnstone agreed to clarify this and to ensure there are twice daily cleans. With regard to other investigations being considered Heather Wallace asked if there is the potential to screen staff. Dr Valyraki replied that this could be considered if there are any further cases but would need to involve Occupational Health.	S Johnstone
6.	**Healthcare Infection Incident Assessment Tool (HIIAT)**	
	The situation was assessed using the Hospital Infection Incident Assessment Tool (HIIAT) and was classified as GREEN. Severity of illness – Minor Services – Minor Risk of Transmission – Moderate Public Anxiety –Minor	

		ACTION
7.	**Communications**	
	Neil McSeveny advised that an official line is not required at this time until the typing results are available but can have a draft statement in place if required. Heather Wallace asked if this could be shared with HPS if a statement will be issued. The IPC team will prepare the HIIORT for Health Protection Scotland.	Press Office IPC Team
10.	**AOCB**	
	Nil.	
11.	**Date & Time of next meeting**	
	No further IMT date was agreed at the meeting.	

Agreed Action Plan

Date agreed Action	Action	Responsible Person	Status/Update
05/10/20	The nurse educators will carry out targeted education and a further line audit will be carried out in a week's time.	P Friel	Joint visit with practice development and IPCT to review practice arranged for 20.10.20.
05/10/20	The weekly screening of babies is being carried out and typing sent to the Reference Lab. Dr Valyraki agreed to follow this up and check the results.	Dr Valyraki	
05/10/20	Wait on the results before decolonising the patients. If Consultant agrees to this Dr Heuchan and Morag Liddell can carry this out.	Dr Heuchan M Liddell	
05/10/20	To ensure Doctors have spoken with the parents and this is documented in the notes. Morag Liddell agreed to check the patient notes.	M Liddell	
05/10/20	Kate Hamilton to confirm if Gillian Bowskill spoke with the families.	K Hamilton	G Bowskill & Dr L Leven spoke with parents of child AH on 25.09.20
05/10/20	Sharon Johnstone to clarify that a deep clean of room 7 was carried out and to ensure there are twice daily cleans in the room.	S Johnstone	Twice daily cleans are carried out in the unit. The deep clean requested by G Bowskill to Nurse in Charge on 25.09.20 was not passed to facilities.
05/10/20	A parent leaflet is being devised and Kate Hamilton informed that she will look at the leaflet that was prepared for PRM.	K Hamilton	completed
01/10/20	Prepare a draft media statement in case of any media interest.	Press Office	completed
01/10/20	Prepare the HIIORT for Health Protection Scotland.	IPC Team	completed

NHS Greater Glasgow and Clyde	**NHS Greater Glasgow & Clyde** **Infection Prevention and Control Team**
Purpose:	Problem Assessment Group (PAG)
From:	Infection Prevention and Control Team
To:	IPCT SMT/Clinical Team
Date:	25.09.20
Subject/ situation:	Gentamicin Resisitant MSSA
Background:	RHC NICU - 4 HAI Gentamicin resistant MSSA isolates with matching antibiograms in a 4 week period. 2 of these isolates have matching Spa Types - t1684. Patient 1: [redacted] DOA: [redacted].08.20 – [redacted].08.20 RHC NICU, [redacted].08.20 – [redacted].09.20 [redacted], [redacted].09.20 - [redacted].09.20 Died – [redacted].09.20 – Death Certificate - 1a necrotising enterocolitis, b septicaemia, c prematurity. Isolate – [redacted].08.20 Mouth, Rectal, Throat & blood culture**(t1684).** Patient 2: [redacted] DOA: [redacted].08.20 – [redacted].08.20 RHC NICU, [redacted].08.20 – [redacted].09.20 [redacted], 06.09.20- present RHC. Isolate – [redacted].08.20 Throat. (no typing) Currently stable in SCBU. Patient 3: [redacted] DOA: [redacted].03.20– [redacted].08.20 RHC NICU. Discharged [redacted].08.20. Isolate – [redacted].07.20 NPA. (no typing) Discharged [redacted].08.20 Patient 4: [redacted] DOA: [redacted].07.20 – present RHC NICU. Isolate – [redacted].08.20 Mouth **(t1684).** Currently stable in NICU isolated with TBPs in place.
Discussed with/Communications:	Dr AM Heuchan, Dr L Leven, P Friel, J Rodgers Hypothesis : Probable cross transmission, original source unknown. Babies with matching spa types had crossover in time and place. Duty of Candour : The medical staffs have discussed isolate with parents.

Hospital Infection Incident Assessment Tool (HIIAT)	HIIAT – Green • Severity of illness - Minor • Impact on Service - Minor • Risk of Transmission- Moderate • Public Anxiety- Minor
Recommendation /options:	IMT - No – Triggers set for progression to IMT: Any further colonisation or bacteraemia with a Gentamicin resistant MSSA within a 2 week period. Decolonisation of baby in unit was discussed; however baby is too fragile at the moment. This will be addressed again if necessary. <u>Previous Actions</u>: • IPCAT carried out 04.08.20 – overall score 88%, SICPs 92%. • Hand hygiene audit carried out 03.08.20 – 100%. • HPV of unit completed 15.09.20. <u>New Actions:</u> • Repeat hand hygiene audit. • Line audit will be carried out by service. • Routine weekly screening of babies will continue. • Spa typing will be carried out on any future isolates of Gentamicin resistant isolates for NICU. • Lab will release the Gentamicin sensitivity for any MSSA isolate for NICU. • Reference lab will be contacted to determine if this strain is prevalent in the community. • Neonatal service will review the literature around skin cleansing prior to Kangaroo care. • RHC SMT will review the staffing levels in the unit dependant on acuity. • Neonatal service will assess staff for any new skin conditions. • Neonatal service will review parent/visitor hand hygiene.
IPCT Members	Dr A Balfour Kate Hamilton Gillian Bowskill

DATE	WHAT (Action)	WHO (Owner)	DATE COMPLETED	RESULT: (Conclusion)
25.09.20	Hand Hygiene Audit	Stefan Morton	**30.09.2020**	**100% overall compliance**
25.09.20	Line audit	P Friel/J Rodgers	**02.10.20**	**Issues with hand hygiene. Will be repeated in 1 week.**
25.09.20	Spa typing will be carried out on any future Gentamicin resistant MSSA isolates	Dr A Balfour	**Ongoing; 2008205940 sent 01.10.20**	**Ongoing**
25.09.20	Lab will release the Gentamicin sensitivity for any MSSA isolate for NICU	Dr A Balfour	**Comms to lab staff and IT 25.09.20**	**Ongoing**
25.09.20	Reference lab will be contacted to determine if this strain is prevalent in the community	Dr A Balfour	**Comms received: low prevalence in community. WGS to be performed on any t1684 to examine relatedness**	**Ongoing**
25.09.20	Neonatal service will review the literature around skin cleansing prior to Kangaroo care.	Dr AM Heuchan	**05/10/20 (at IMT)**	**Dr Heuchan reviewed the literature and there is little evidence to support skin cleansing prior to Kangaroo care. Dr Heucan has contacted Chris Lilley, Neonatal Consultant at PRM, for information and is awaiting a response.**
25.09.20	RHC SMT will review the staffing levels in the unit dependant on acuity	J Rodgers/P Friel	**05/10/20 (presented at IMT)**	**Presented figures from BAPM for the period 02/08/20 – 30/09/20. The average number of nurses required on shift during this period, according to BAPM, was 21.03, the number of nurses on duty was 23.25. The caveat is that there are very complex patients in ICU that require more than 1 to 1 care. Huddles are carried out every day to look at safety levels.**

DATE	WHAT (Action)	WHO (Owner)	DATE COMPLETED	RESULT: (Conclusion)
25.09.20	Neonatal service will assess staff for any new skin conditions	Dr AM Heuchan	**05/10/20 (presented at IMT)**	**The unit also undertake annual skin surveillance and a further 6 staff were new referrals and referred to Occupational Health. Patricia Friel informed that there are approximately 160 full time equivalent staff which is a small proportion of staff being referred.**
25.09.20	Neonatal service will review parent/visitor hand hygiene	Dr AM Heuchan/P Friel	**05/10/20 (presented at IMT)**	**Hand hygiene for parents is included in the Safety Brief and the Weekly Parent Brief.**

Office of the Chief Executive

NHS Greater Glasgow and Clyde

AARG – Action Plan Covering Note

Please find in this document NHS Greater Glasgow and Clyde Oversight Board and Case Note Review Action Plans.

Column Definitions:

Column 1 – No. in the Report | This identifies the recommendation in the associated reports
Column 2 – Status | This indicates the completion status of the work associated with each action
Column 3 – Recommendation/Action | This contains the full recommendation text from each report
Column 4 - Executive Lead | This identifies the NHSGGC executive leading our response to the recommendation
Column 4 – Action lead | This identifies the NHSGGC lead for each action outlined.
Column 5 – Proposed Outcome/Measure | This records the outcome and measure agreed with AARG in June 2021.
Column 6 – Delivery Date | This records the date NHSGGC expected to complete each action, this was also agreed with AARG.
Column 7 – Progress/Evidence and Assurance of Completion | This is where NHSGGC have recorded the work undertaken in closing each recommendation and described our supporting evidence.

Since the June meeting of the AARG and the first action plan being submitted, no changes have been made to the outcome/measures column. This decision was reached to ensure NHSGGC could clearly audit the work agreed to be undertaken, with the final position at the point of closing the recommendation.

Therefore NHSGGC has used the evidence of completion/ assurance column to provide summary evidence of the recommendation being closed and has described the supporting evidence available.

NHSGGC Recommendations			Executive Lead	Action Lead	Proposed Outcome / Measure	Delivery Date	Progress and Evidence of Completion
No. in Report	Status	Recommendation / Action					
Final-3	**Underway**	**Strengthened arrangements for IPC, commensurate with the complexity and size of the Health Board, should be put in place in line with relevant national guidelines.**	**Chief Executive**	**JG / AW**	**Following review and agreement of potential changes - implement revised arrangements for IPC.**	**Sep-21**	Following agreement between the Scottish Government Chief Nursing Officer and the NHSGGC Chief Executive, the structure and recruitment of a substantive Director of Infection Prevention and Control is now underway with the post currently being advertised. This post will report directly to the Board Nurse Director.
Final-4	**Underway**	**The structure of IPC should reflect the continuing need to address the complex and continuing issues within the QEUH. IPC resourcing and skills should be reviewed, and active consideration given to whether there should be the appointment of specific IPC roles with QEUH responsibility.**	**Chief Executive**	**JG / AW**	**Same as recommendation Final-3**	**Sep-21**	As above
Final-5	**Complete**	**NHS GGC should ensure that there is a full, effective and standardised approach to the relevant microbiological, water testing and other information regarding the QEUH outbreaks. Relevant data should be integrated in a way that allows effective collecting, recording and analysis of information relating to the incidents, which will be reported through the IPC governance system.**	**Director of E&F**	**TS**	**Revised system in place. Ongoing monitoring reports routinely produced.**	**Sep-21**	See recommendation CNR 3.1, 3.3, 10.1 and 10.2 for details.
Final-6	**Complete**	**IMTs in NHS GGC should be more rigorous in developing and making accessible key documentation to support records and analyses of a series of outbreaks over a prolonged period. This should be implemented by NHS GGC, with support from ARHAI Scotland who can identify best practice and make changes to national guidance if this is required.**	**Int Director of IPC**	**AW**	**Review of surveillance processes will be undertaken, results published and monitoring will be completed.**	**Sep-21**	NHSGGC action complete. Review of IMT processes progressed with a full review of process and reporting including central repositories for all documents related to IMT. A refreshed IPCT Incident Management Process Framework has been implemented. Example IMT minutes available as supporting evidence. Work is ongoing with ARHAI on a national early warning system.
Final-7	**Complete**	**Where there are a number of successive infection incidents in the same or a related location, NHS GGC should work with ARHAI Scotland to pilot a process that goes beyond the current IMT focus on individual incidents on behalf of NHS Scotland.**	**Int Director of IPC**	**AW**	**SPC charts based on ARHAI methodology are in place and updated in real time by the IPCT. These charts are returned to clinical teams in 6a and PICU. GGC continue to engage with ARHAI to develop an early warning system for high risk units. IPCT have appointed an epidemiologist to**	**Sep-21**	SPC charts based on the ARHAI methodology are in place and returned to clinical teams for review.
		SPCs based on ARHAI methodology are in use in areas with common or prolonged outbreaks of infection.					Process in place
Final-8	**Complete**	**Building on work already in place, there should be further visible and systematic planning for strengthening coordination between IPC and Facilities and Estates, particularly with respect to forward planning in addressing continuing infection risks with the QEUH and specifically in relation to water testing.**	**Int. Dir. of IPC / Dir of E&F**	**AW/TS**	**NHSGGC is jointly working with Health Facilities Scotland. Our SCRIBE work is evidence of this partnership approach.**	**Jun-21**	NEH - HAI-SCRIBE has been reviewed and signed off at each stage with both IP&C, Estates and Facilities present at all meetings. HSF review process - SCRBE evidence joint working programme. Meeting took place with HFS/EFM/IPCT in June to determine both training and generic scribe work. An outcome of this was that HFS has offered bespoke training for GGC and is supportive of the review of the generic scribe process. Meetings with EFM and IPC were undertaken in June and July to complete SCRIBEs based on the most common task undertaken and a first step in this process.
		Significant work has been done to improve the use of SCRIBE RA processes across as sites.			Regular audit of process will be undertaken and reported through Infection Control and Built Environment Group	-	As above

Final-10	**Complete**	**The Health Board should finalise and implement its IPC Assurance and Accountability Framework.**	**Int. Director of IPC**	**AW**	**IPC Assurance and Accountability framework is in place. The Board Infection Control Committee have approved and the documentation is available on the NHSGGC website.**	**Complete**	IPC Assurance and Accountability Framework has been approved by the Corporate Management Team and is now in place.
Final-11	**Complete**	**A review should be undertaken of how the environmental risk of significant water contamination within the QEUH is being assessed and managed in the Health Board's approach to risk management, and changes made to relevant risk registers and risk management planning as a result.**	**Dir. Of E&F / Head of Gov**	**TS / EV**	**Review completed of water processes. Paper to be prepared to seek agreement to approach. Initial work completed on E&F risk.**	**Complete**	The Water Plan for both hospitals has been updated by the site Authorised Person (AP) as well as external review by an independent Authorising Engineer. This Plan has detailed site management actions as well as escalation and governance arrangements. The Water Plan review has been completed and reported through the annual water safety risk assessment, which is part of NHSGGC business as usual. Enhance approach to corporate and business risk is part of our overall review of risk governance (see below).
		The E&F RR contains reference to water hygiene and its management.			The E&F RR contains reference to water hygiene and its management. The Corporate risk register encompasses water hygiene and its management through estates compliance.		The Corporate Risk Register has been reviewed and is currently going through routine governance processes, which is part of NHSGGC business as usual.
Final-12	**Complete**	**The Health Board should set out a clearer, more targeted focus on the corporate risk process.**	**Head of Governance**	**EV**	**Revised approach to risk management will be published.**	**Aug-21**	The Risk Management Strategy and guidance documents have been revised and are going through routine governance processes. Board Seminar session on risk appetite has taken place. Suite of key documents relating to Risk Management going the through Audit and Risk Committee in September 2021 illustrating an overall enhanced approach to Risk Management..
		A review of the approach to risk management is underway supported by Internal Audit n consultancy capacity.				**Jun-21**	as above
		The Corporate Risk Register is being reviewed linking to corporate objectives.				**Jul-21**	As above
		Business Risk Registers will be reviewed and updated ensuring effective escalation and linkage.				**Aug-21**	Business /Operational Risk Registers review as part of the overall process. E.g. IPCT RR.
Final-13	**Complete**	**The Health Board should review how concerns raised about environmental risks are communicated to senior Committees and the Board, and the procedures to ensure that such concerns are addressed. Moreover, it should also ensure the responses are communicated appropriately to those raising concerns.**	**Head of Governance**	**EV**		**Aug-21**	Part of NHSGGC approach to Active Governance, with routine updates to the Board with robust Action Plan around the Assurance Framework.
							A review of environmental risks has been undertaken at the varying levels within the organisation, liking to the revised approach to risk management, ensuring appropriate escalation.
							The approach to communication to the Board and Committees is a core part of the implementation of the Governance Assurance Framework of which risk is key.
							Through more proactive management of risk, the requirement for departmental feedback to those highlighting risks is being made more explicit.
Final-14	**Complete**	**Given that organisational duty of candour was considered, but not formally activated, NHS GGC should review its approach to ensure that it is not simply focused on patient safety incidents and circumstances where causality is clear. There should be greater consideration of the duty where events could result in death or harm. There should also be improved guidance on how the Health Board will balance with other duties perceived as barriers to meeting the organisational duty of candour obligations.**	**Medical Director**	**JA**	**NHSGGC is refreshing its duty of candour policy - an early draft of this document will be shared with the Oversight Board.**	**Jul-21**	Action Complete - Revised Duty of Candour policy has been agreed and will be taken through appropriate governance by the end of September 2021. This follows an audit of NHSGGC duty of candour conducted by Azets in March of 2021.

					Following approval and adoption of the reviewed duty of candour policy - relevant guidance will be produced and cascaded through the organisation.	**Jul-21**	Action Complete -Implementation plan has been developed including guidance and revised training materials to support new policy and available as evidence.
Final 16	**underway**	**The Health Board should expedite the refurbishment of Wards 2A and 2B in the RHC as safely and quickly as possible, and keep affected children, young people and families fully informed of the developments.**	**Director of E&F**	**TS**	**Wards 2A / B to be fully operational.**	**Aug-21**	Following the recent discussions with, and review by, Scottish Government colleagues, including the Chief Nursing Officer, and NHS Assure, both parties have confirmed their support for a move back into Wards 2A/B. There are a number of further recommendations that NHS Assure have identified which will be incorporated into the overall review process. NHS Assure have also confirmed that none of these actions would prevent an imminent move back to the wards. Following dialogue with the clinical team is now planned to re-open the wards on 9th March 2022, subject to agreement by the AARG.
		Ensure high quality, regular dialogue with patients, families and staff until final occupation.					Board and families communication approach is well established. Robust dialogue continues in person, at ward and department level and through dedicated social media channels. The 6A Facebook Page is well established and allows for two way engagement between patient's families and the service. The 6A Facebook Page gives the opportunity for families to engage on a rang of topics and provide a community space for patient families and staff, this includes updates on 2A/B. Bespoke comms around opening planned.
Final-17	**Complete**	**A programme of testing and review should be put in place to assess any potential impacts of the chemical dosing water solution on infrastructure.**	**Director of E&F**	**TS**	**Paper to outline processes will be produced. SOP in place.**	**Complete**	In place - Board Water Management SOP implemented. This is established practice in NHSGGC and is part of routine testing and impact monitoring , findings from which are noted at Water Group. The domestic water system on the QEUH/RHC is subject to extensive ongoing sampling, the results of which are monitored by the Water Management Group which has a broad representation of GGC staff as well as external advisors.
Final-18	**Complete**	**The various action plans and reviews attached to these recommendations should be compiled into a single response to the Oversight Board, and implementation overseen by NHS GGC and the Scottish Government.**	**Chief Executive**	**CA**	**Full, agreed action plan in place and progress being monitored.**		Action Plan complete and submitted to AARG GGC governance arrangements have been agreed through key Standings Committees to the Board..
Interim-1	**Complete**	**With the support of ARHAI Scotland and Healthcare Improvement Scotland, NHS GGC should undertake a wide-ranging programme to benchmark key IPC processes. Particular attention should be given to the approach to IPC audits, surveillance and the use of Healthcare Infection Incident Assessment Tools (HIIATs).**	**Int Director of IPC**	**AW**	**Benchmarking report to be drafted. Recommendations implemented.**	**Jul-21**	NHSGGC Actions Complete - Benchmarking has been completed, with resulting recommendations formulated. Oversight was provided by ARHAI and HIS. Final paper re-submitted to HIS and ARHAI, awaiting final ARHAI response. Approval has been given from partnership Boards (Ayrshire and Arron and Lanarkshire). Meeting 13th August 2021 with ARHAI.
Interim-2	**Complete**	**With the support of ARHAI Scotland, NHS GGC should review its local translation of national guidance (especially the National Infection Prevention and Control Manual) and its set of Standard Operating Procedures to avoid any confusion about the clarity and primacy of national standards.**	**Int Director of IPC**	**AW**	**Report to be produced, recommendations implemented.**	**Jun-21**	NHSGGC have worked with colleagues in ARHAI to propose a way forward for NHSGGC with regards the NIPCM. The recommendations in the SBAR which was approved by ARHAI and submitted to the NHSGGC committees in June 2021. The group agreed to remove most SOP but asked NCIPC to make recommendations regarding issues not covered in NIPCM, e.g. CJD and make recommendations of which if any SOP should be retained and renamed as guidance documents. IPCT governance groups meet again in August so these recommendations will be available and this action should be complete at this point.

Interim-4	**Complete**	**With the support of Health Facilities Scotland, NHS GGC should undertake an internal review of current Healthcare Associated Infection Systems for Controlling Risk in the Build Environment (HAI-SCRIBE) practice to ensure conformity with relevant national guidance.**	**Director of E&F**	**TS**	**NHSGGC has developed a generic register and have put in place a systems health check framework. Assurance of work is documents through SCRIBEs.**	**Aug-21**	Significant work undertaken to improve the use of SCRIBE RA processes across as sites - continual monitoring in place. In addition, generic register being established to illustrate health check of our system . Furthermore SCRIBES are being created for each sites - Completed in August.
Interim-8	**Complete**	**A NHS GGC-wide improvement collaborative for IPC should be taken forward that prioritises addressing environmental infection risks an ensuring that IPC is less siloed across the Health Board.**	**Int Director of IPC**	**AW / AO'N**	**Fully operational Collaborative in place with agreed plan and outcome measures.**	**Jun-21**	Driver diagrams in place - improvement collaborative membership agreed - Gold and Silver Command updates will provide evidence of progression with central work streams. Operational group meets monthly. Work stream leads have been identified and flash reports on progress have been submitted to the steering group. Vision statement further developed in June with a final version approved end of June 21. In addition, a communication strategy for the IPC collaborative is in place.
		Establish appropriate infrastructure (corporate and operational) meetings					In place.
		Agree TOR and key deliverables for collaborative.					In place.
		Produce progress report for review.					In place - reports submitted to gold command.
Interim.9	**Complete**	**NHS GGC should pursue more active and open transparency by reviewing how it has engaged with the children, young people and families affected by the incidents, in line with the person-centred principles of its communication strategies. That review should include close involvement of the patients and families themselves.**	**Director of Nursing**	**MM/SB**	**Overall approach to be documented.**	**Aug-21**	1. The Consultation Institute has been commissioned to conduct review of communications and engagement with families to identify what has worked well and where it could be enhanced and improved. With the paper submitted. 2. One-to-one interviews targeted at those most likely to have been affected by the infection incidents, treated with sensitivity and a trauma informed approach 3. Patients and families recording their experiences and emotions as they occur to them during care and treatment using video camera and onsite video booth 4.Draft social media strategy to be taken to Informal Directors' early November for CMT in December 5. Draft consultation institute report – received end of October action plan to be developed in November to be taken forward December. 6. HEI Communication strategy, previously approved by CMT, has now been taken through governance processes and approved by BICC on 20 October 2022
Interim.10	**Complete**	**NHS GGC should ensure that the recommendations and learning set out in this report should inform an updating of the Healthcare Associated Infection Communications Strategy and an accompanying work programme for the Health Board.**	**Director of Comms &PE**	**SB / AW / SD**	**Refresh Healthcare Associated Infection Communications Strategy incorporating recommendations and learning from QEUH/RHC Oversight Board Reports**	**Jul-21**	Action Complete - HAI communication strategy has been approved by the Corporate Management Team in August 2021
Interim-11	**Complete**	**NHS GGC should make sure that there is a systematic, collaborative and consultative approach in place for taking forward communication and engagement with patients and families. Co-production should be pursued in learning from the experience of these infection incidents.**	**Director of Comms / Director of Nursing**	**SB / MM**	**Overall approach to be documented. (See evidence)**	**Aug-21**	New Stakeholder Communication and Engagement Strategy has been implemented to complement existing approaches to listening and involving patients and their families. From ward level to Board level. Ward 6A: HOPE family integrated care group established RHC: What Matters to Me, Care Assurance audits, complaints, How are we doing?, You said we did Corporate level: Care Opinion, NHSGGC website feedback system, person-centred care themed conversations, patient stories at Board meetings.

Interim-12	**Complete**	**NHS GGC should embed the value of early, visible and decisive senior leadership in its communication and engagement efforts and, in so doing, more clearly demonstrate a leadership narrative that reflects this strategic intent.**	**Director of Comms &PE**	**SB**	**Framework agreed. (See evidence)**	**Jun-21**	Communication, Leadership and incident management processes have been enhanced and strengthened. Chief Executive communications have also been enhanced. NHSGGC Workforce Strategy approved by the Board April 2021 includes focus on senior managers' visibility. QEUH Silver Command has undertaken work on communications, engagement and culture including launch of Directorate team brief and two-way engagement processes. Application of wider learning throughout the organisation.
Interim-15	**Complete**	**NHS GGC should learn from other Health Boards' good practice in addressing the demand for speedier communication in a quickly developing and social media context. The issue should be considered further across NHS Scotland as a point of national learning.**	**Director of Comms & PE**	**SB**	**Establish good practice within other HBs. Develop and implement social media strategy to maximise reach and engagement with the Board's corporate social media sites (Facebook, Twitter, Instagram, LinkedIn)**	**Jun-21**	1. The Consultation Institute has been commissioned to conduct review of communications and engagement with families to identify what has worked well and where it could be enhanced and improved. With the paper submitted. 2. One-to-one interviews targeted at those most likely to have been affected by the infection incidents, treated with sensitivity and a trauma informed approach 3. Patients and families recording their experiences and emotions as they occur to them during care and treatment using video camera and onsite video booth 4.Draft social media strategy to be taken to Informal Directors' early November for CMT in December 5. Draft consultation institute report – received end of October action plan to be developed in November to be taken forward December. 6. HEI Communication strategy, previously approved by CMT, has now been taken through governance processes and approved by BICC on 20 October 2022 . 7. Social listening software has been evaluated and approved to proceed to implementation stage.
Interim-16	**Complete**	**NHS GGC should review and take action to ensure that staff can be open about what is happening and discuss patient safety events promptly, fully and compassionately.**	**Director of HR**	**AMcP / JB / SB**		**Sep-21**	Board wide internal stakeholder engagement is underway for NHSGGC staff, to develop the internal communication and engagement strategy. In addition, the Board Workforce Strategy has been approved, which includes comms and engagement.
							Silver command approach within the South Sector is focusing on appropriate communication and open engagement at operational level. South Sector undertaking the next phase of the Board's Investor in People programme.
							Ongoing organisational development support within specific teams relevant to this report (IC and diagnostics)
							Board wide whistleblowing review undertaken Nov 2020 to March 2021 - Report presented to the Staff Governance Committee and the Board. Whistleblowing standards launched with monitoring in place.

NHSGGC Recommendations			Executive Lead	Action Lead	Proposed Outcome / Measure	Delivery Date	Progress and Evidence of Completion
	Status	Recommendation / Action					
1.1	Complete	**Every GNE bacteraemia occurring in a Paediatric Haematology Oncology patient at NHS GGC should be comprehensively investigated using RCA methodology, whether or not it is considered at the outset to be related to the hospital environment or thought to be part of a potential outbreak. This will ensure that future consideration of the underlying issues can be informed by consistent, comprehensive and prospectively collected data.**	Int Director of IC	AW	**NHSGGC has an established process in place - with regular reporting to RHC senior management from IC Team**	Complete	RCA methodology is established practice across NHSGGC infection control analysis and monitoring. Work conducted in RHC Ward 6a evidences this process in action.
1.2	Complete	**A multi-professional group, with a defined and consistent membership representing all appropriate skills and backgrounds, should be established with responsibility for continuing oversight of these data: for assessment of its quality, and completeness, and for its analysis and reporting. The intent is that this group, which should have external representation, will grow in collective expertise and knowledge; have a shared understanding of the history and challenges encountered since the opening of the new QEUH/RHC site; and will be able to define and guide the organisation's response to future concerns about environmentally acquired infection in this group of patients. The group should report directly to the IPC Manager and Lead Infection Control Doctor and its findings form a standard part of upward reporting of IPC issues within NHS GGC.**	COO	JB	**Report will be produced for review.**	Jul-21	Recommendation 1.1 has been in place since 2019 however new SBAR will link both 1.1 and 1.2 recommendations to ensure a quality management system approach to the review of cases of blood stream infections in this vulnerable group of patients. This group will report to the Clinical Governance Group for Women and Children's and the Acute Infection Control Committee.
2.1	Complete	**Given the unexplained but significant excess of female patients in the Case Note Review, the Paediatric Haematology Oncology service should audit all bacteraemia for a sufficient period either to reassure that there is no real gender effect, or to investigate further if this proves to be the case.**	COO	SD	**Report will be produced for review.**	Jul-21	
3.1	Complete	**The data systems used to document facilities maintenance activity in clinical areas need to consistently capture the exact location of the work done; the date(s) on which the work was actually done; and be accessible to inform the IPC process, including the investigation of clusters and outbreaks.**	Director of E&F / Director of e-Health	WE / TS	**Review to be completed and audit process to be agreed.**	Jul-21	In place. In order to ensure that all relevant data is provided regarding facilities maintenance activity with regards to maintenance activity in clinical areas, the request forms have been updated to ensure that the detailed data regarding location, site (e.g.. ward 2 room 5, cold tap) is sent to the Laboratory to be recorded in Telepath and made available to the wider team. The NHSGGC Estates Management system has undergone enhancements, ensuring the mandatory capture of the precise location of maintenance activities within QEUH & RHC.
3.2	Complete	**The frequency with which facilities maintenance activities occur in specific ward areas should be reported on a regular basis in a way that informs wider awareness of the vulnerability of the environment and tracks changes in the pattern of such activity.**	Director of E&F	TS	**NHSGGC is working in collaboration with national agencies to enhance reporting across Scotland. A new National reporting system is expected in July 2021. The new national reporting system will enable NHSGGC to track patterns of activity and feed into a new NHSGGC IC Monitoring Dashboard.**	Jul-21	FM First , which is the Estates Management System has been updated for the QEUH site with precise locations as per the recommendation action CNR 3.1. The precise locations are now available within FM First on a drop down menu.
		The reporting fields and feedback function of the computer aided facilities management system (CAFM) are being developed further by the software provider. This is ongoing as the system is a national rollout, however we anticipate that the system will be updated by July 21 / Complete					An Estates Management representative will be present at all IMT meetings. This will allow for the ability to check FM First for status updates and subsequent raised work request detail as and when is required.
3.3	Complete	**The precise location of any swab or water sample taken for microbiological surveillance, and the date on which it was obtained, must be recorded and the results made accessible to inform the IPC process, including the investigation of clusters and outbreaks.**	Director of eHealth /COO	WE / AL	**A process map of current process is being drafted outlining any required enhancements. The actions of this review will outline improvements to the current process and will be progressed. (It is anticipated that more detail will be sought on the DMA request form to ensure the required level of data can be captured and presented alongside other data items. At this stage it is anticipated that eHealth will create a reporting environment to assist teams to analyse the data)**	Jul-21	The water sampling request process has been reviewed. Enhanced data returns from the Board water management contractor, has been enhanced and strengthened, with evidence now supporting retrospective review, via a new water sampling database.

							The process for environmental swabs has been updated. All requests for environmental testing must come through the Infection Control Microbiologist Consultant. Requests include sample type and investigation required for specific locations. Results are available to the IC Team. In addition, NHSGGC has the functionality for specific results relevant to a patient are scanned and uploaded to the clinical record in Clinical Portal.
							Furthermore, improvements have been identified in addition to the new request form system. These include how results from Specialist Service Providers are reported, a summary of the result as part of the incident report and the need for the result to be searchable in the Telepath Laboratory system. Following analysis and improvements of data recorded in Facilities, Infection Control and Laboratory systems the precise location of the sample and also the result is recorded within the relevant forms and also within the Telepath Laboratory system. This information is now extracted to the new database system and available to the IC Team. the water sampling requests are now also recorded in the FM First system where previously this had been reliant on email communication. This suite of work has significantly enhanced and strengthened the Board integrated reporting mechanisms.
3.4	**Complete**	**When a suspected infection outbreak is being investigated, the plans agreed for environmental sampling of the relevant area must demonstrate a systematic approach appropriate to the circumstances of the investigation.**	**Director of E&F**	**TS / WE / SD**	**Environmental sampling is requested by the IPC team and generally undertaken by them too in terms of air samples and surface swabs. When water sampling is required the areas are identified by IPC, Estates commission and a specialist water hygiene contractor undertakes this activity. Reports are simultaneously reported to Estates as well as the Micro team. There is a clear Sop for out of spec reports and remediation plans as well as escalation plan**	**Complete**	A Board wide Water Management SOP in place and a core component is environmental sampling. A new database has been established which provides details on water and surface samples, which will identify any potential emerging trends.
3.5	**Complete**	**When the Chair of an IMT (or similar future structure) identifies that environmental samples are required to inform an investigation, these should be taken, reported back promptly and evidenced in the IMT minutes.**	**Director of E&F**	**TS / AW / SD**	**Report to be drafted to confirm completion.**	**Jul-21**	This is in place and standard practice across NHSGGC. Evidence of ad hoc environmental sampling pro forma by the IC team provides evidence of this process.
		Environmental samples are commissioned and data stored by the Micro team, this includes water samples, therefore the IMT Chair will have ready access at all times					NHSGGC have developed a standardised reporting template . Additionally, the reporting process is being mapped as per recommendation 3.4.
4.1	**Complete**	**A systematic, fit for purpose, routine, microbiological water sampling and testing system is required to provide assurance going forwards. How the results from such sampling/testing are recorded, accessible and used to highlight concerns should be reviewed, including to ensure that investigations of possible links between clinical isolates and water/environment sources can be informed in a timely way. In addition, investigations of possible links between clinical isolates and water/environment sources should consider whether (short or medium/long term) changes to the routine microbiological water sampling and testing system are required.**	**Director of E&F**	**TS**	**NHSGGC has worked with national agencies extensively to address this issue.**	**Jun-21**	There is a clear Water Plan in place for all hospital sites, this will include site management arrangements, routine sampling, reporting and SOP for out of spec results. This plan is reviewed by the Board Water Safety Group with clear escalation to other governance committees as required. A new database has been established which provides details on water samples, which will help to identify trends.
4.2	**Complete**	**NHS GGC should ensure that the SOP for Minimising the Risk of Pseudomonas aeruginosa infection from water explicitly states whether this also applies to high risk areas other than adult and paediatric intensive care units and neonatal units.**	**Int Director of IC**	**SD**	**SOP will be finalised and implemented by June 21. Please note this is an update to an existing SOP.**	**Jun-21**	An updated SOP has been implemented for the risk management of Pseudomonas. In addition NHSGGC has undertaken a risk assessment which demonstrates the method by which other areas are included in the areas to sample and what those areas are.
5.1	**Complete**	**NHS GGC should review the current approach to IPC audit: a) to ensure that the component elements are addressed individually and that the RAG rating is not determined only by an overall score; and b) to show that the governance and assurance process relating to improvement action plans can demonstrate if interventions have been effective. Quality improvement methodology should be used to drive and sustain improvement.**	**Int Director of IC**	**AW**	**Following a successful meeting with ARHAI - NHSGGC has developed a SBAR which is being reviewed and approved through the clinical governance process**	**Jul-21**	Benchmarking has been completed, with resulting recommendations formulated. Oversight has been provided by ARHAI and HIS. Final paper re-submitted to HIS and ARHAI, awaiting final ARHAI response. Approval has been given from partnership Boards (Ayrshire and Arron and Lanarkshire). (See also OB - Interim 1).
5.2	**Complete**	**The current status of IPC audit should form a routine and documented component of IMT assessment.**	**Int Director of IC**	**AW / SD**	**NHSGGC will update its IMT Process framework and once complete this will be taken through ICC committees for approval. It will include links to RR, DoC, Audit**	**Sep-21**	A refreshed Infection Prevention and Control Team Incident Management Process Framework has been implemented.

5.3	**Complete**	**Greater effort should be made to ensure that deficits identified by IPC audits are remedied, re-audited, linked to measures of ongoing quality improvement/compliance, and clearly documented.**	**COO**	**AO'N**	**Audit report will be produced.**	**Jul-21**	(1). IPCAT established a short life working group and agreed ToR with colleagues from HIA, HIS and an Infection Control Manager from another Board as a critical friend. This is to refocus our approach to our audit processes, benchmarking areas of good practice (national), and to agree a process going forward in relation to future audit governance. (2). The IPCAT schedule and process strategy is available as evidence. This strategy aims at ensuring audit and monitoring improvement following an IPACT, which will be influenced and modified as we move into CAR system and the work re SICPs as part of the Network. (3) NHS Greater Glasgow and Clyde (NHSGGC) has undertaken a project to benchmark its Infection prevention and Control (IPC) activities against those of other health boards in Scotland. All health boards in Scotland were asked to participate in this process and we acknowledge their help at an exceptional time (pandemic). This SBAR reports on 4 key IPC processes; alert organism surveillance, IPC advice documentation, SSI surveillance and IPC audit. From this the draft NHSGGC IPC Benchmark Report has been developed, reviewed and agreed by HIS and other Boards are content with this and the recommendations.
5.4	**Complete**	**Greater attention should be paid to the evidence for benefit from Enhanced Supervision by demonstrating sustained improvement in standards where this approach is introduced to a clinical area.**	**Nurse Director**	**AO'N**	**Review report to be published.**	**Complete**	A review of our enhanced supervision processes has been undertaken in QEUH Ward 6A, covering the period April 2020 to March 2021. This has evaluated our existing enhanced supervisions processes, outcomes and quality improvement agenda. Enhanced supervision reports have not only enhanced communication and co-operation between the ward team and other disciplines such as facilities and estates but has also positively influenced how the teams interact at all times to best meet the needs of our patients and families. It has provided a forum for senior members of the ward nursing, estates and facilities teams to meet, share ideas, knowledge and expertise and discuss current and upcoming ward issues that are likely to affect all the teams. Following this review NHSGGC has developed an enhanced supervision algorithm – to be followed by all teams when enhanced supervision has been triggered by an IMT. This algorithm is intended to formalise and support colleagues manage the enhance supervision processes. The Ward 6A QEUH Enhanced Supervision Report April 2020-March 2021 completed, which gathered retrospective actions over the last year and explains the process and outcomes linked to quality improvement.
5.5	**Complete**	**The validity of Hand Hygiene audits should be strengthened by ensuring the staff sample audited is sufficiently representative in terms of numbers and types of staff; and that effectiveness of the interventions are monitored to demonstrate sustained improvement.**	**Int Director of IC**	**SD**	**NHSGGC has processes in place which documented in an SBAR. Furthermore, it will be reiterated in the IMT review.**	**Complete**	Hand Hygiene compliance and assurance SBAR has been completed. Board is assured of the Hand Hygiene compliance and monitoring processes.
5.6	**Complete**	**The frequency of Hand Hygiene audits should be increased when there are concerns about infection rates potentially related to the environment**	**Int Director of IC**	**SD**	**This will be included as a requirement in the IMT Process Framework. In addition the framework will include that, if required by IMT, the area will be audited until sustained improvement is demonstrated.**	**Sep-21**	Complete - Process outlined and assurance given that NHSGGC complies with the nationally agreed process.
6.1	**Complete**	**NHS GGC should ensure better communication between the Microbiology and IPC teams. We recommend a forum by which sharing of information and actions occurs in real time to support and improve quality of care to patients, maintain progress and discuss action for any potential change in a patient's condition or linked infections.**	**COO**	**JB / AW**	**Director of Regional Service will provide SBAR on the process in place.**	**Jun-21**	As per recommendation CNR 1.2. A multi-disciplinary meeting (known as the buzz) has been established by the Interim Director of Infection Control. In addition an ongoing organisational development process is underway.
7.1	**Complete**	**NHS GGC should review the ICNet alert organism list to ensure that, at a minimum, it reflects the advice in the Scottish NIPCM and to ensure that it is further updated to reflect experience with GNE bacteraemias.**	**Int Director of IC**	**SD**	**NHSGGC has completed an annual review as part of its usual operating procedures. For assurance, NHSGGC will document for AARG our practice and compliance with national guidance.**	**Jun-21**	NHSGGC has completed its annual review of the ICNet Alert Organism list to ensure at a minimum it reflects the Scottish NIPCM and to give assurance that NHSGGC ICNet Alert Organism list is further updated to reflect the experience with GNE bacteraemias. An SBAR outlining this process has been completed.
8.1	**Complete** A50611329	**NHS GGC should review its Standing Operating Procedure regarding the use of the term HAI to make it clear whether this includes all Healthcare Associated Infections. This is a specific issue in the context of patients who, like those in Paediatric Haematology Oncology, frequently and repeatedly attend the hospital as outpatients, day patients and inpatients and for whom the distinction between Hospital Acquired Infection (HAI) and Healthcare Associated Infection (HCAI) is unlikely to be useful.**	**Int Director of IC**	**SD**	**NHSGGC has ensured that is compliant with national guidance on patient categorisation. NHSGGC will outline a timeline of its terminology for assurance.**	**Jun-21**	A refreshed IPCT Incident Management Process Framework has been established. Additionally, examples of the regular HAIRT reports are presented to the NHSGGC Board. Furthermore, outbreak timelines are produced by the Infection Control Team .

							HAI is a national term. The terms Hospital Acquired Infection and Healthcare Associated infection are in place and national definitions are used for both in the contact of IMTs. Complete
8.2	**Complete**	**NHS GGC should revisit how they will monitor and, if necessary, trigger concerns about future outbreaks of Gram-negative environmental infections. Reliance on SPC charts to determine if episodes of infection caused by unusual/uncommon microorganisms are significant should be re-evaluated. The process in place for much of the Review period appears to have been insensitive to identifying clusters that should have raised earlier concerns about potential for a common/environmental source of infection.**	**Int Director of IC**	**AW**	**Joint work has been undertaken with ARHAI. This work was discussed at the May IMT. The Minutes of which will be shared with OB as assurance of work undertaken.**	**Jun-21**	The NHSGGC Outbreak and Incident Management plan has been approved. As part of this plan an early warning process has been established. Evidence from previous IMT minutes and work undertaken at NICU RHC highlight NHSGGC has operationalised the Outbreak and Incident Management Plan.
8.3	**Complete**	**RCA methodology should become the standard approach to the investigation of serious infections in Paediatric Haematology Oncology patients.**	**Int Director of IC**	**AW**	**NHSGGC has adopted a RCA methodology to all PHO patients. Our review template will be shared with OB.**	**Jun-21**	The Infection Control team has developed a SBAR outlining NHSGGCs approach to undertaking RCA methodology. NHSGGC is assured that RCA are undertaken when a RCA approach is the appropriate measure.
8.4	**Complete**	**NHS GGC should consider the further and consistent use of the RCA process across the organisation a) to identify evidence of common themes as a cause of infection over time; and b) what can be extracted from the RCA process for organisational learning and improvement.**	**Int Director of IC**	**AW/SD/GJ**	**Clinical Governance and IC Team - to collaborate on outlining and scoping this work**	**Sep-21**	Complete as above Recommendation 8.3
9.1	**Complete**	**The IPC Team should ensure IMT minutes are filed with all supporting papers so that a complete record of the discussions held, evidence presented, actions agreed and the overall report concluding the process, is available and accessible in a single place.**	**Int Director of IC**	**SD**	**NHSGGC is fully compliant with this recommendation - example documentation will be shared with AARG for assurance**	**Jun-21**	Complete in place. NHSGGC is assured that appropriate reporting and governance arrangements are business as usual for our IPC Team IMTs. IMTs documentation as a minimum include: minutes, action plans, debriefs and data pack. Systematic collection of IC data for IMT is established practice.
9.2	**Complete**	**The IMT action log should be a continuous and evolving document throughout all meetings in an IMT series. The log should be reviewed and updated at each meeting so that there is a clear record of actions agreed, responsibility held and tasks completed. The IMT should not be closed if there are actions which have not been completed.**	**Int Director of IC**	**SD**	**NHSGGC is now fully compliant with this recommendation - example documentation will be shared with AARG for assurance**	**Jun-21**	Full review of documentation has been completed, assurance has been given of IMT NHSGGC compliance. Action logs are available as supporting evidence.
9.3	**Complete**	**The absence of IMT reporting at the closure of an IMT sequence is a breach of NHS GGC's own policy. This should be remedied so that practice complies with policy.**	**Int Director of IC**	**AW**	**NHSGGC have established a IMT debrief process - examples of the debrief process will be shared with AARG for review and assurance - Please refer to example in 9.1**	**Complete**	A hot debrief incident process has been established in NHSGGC. Case studies of which are available as supporting evidence.
9.4	**Complete**	**In addition to confirming that due process has been followed in line with organisational policy, IMT and other IPC reports intended for upward reporting within the organisation should more fully describe the scale and significance of the incident that has been investigated from the patient perspective.**	**Int Director of IC / Head of Governance**	**AW / SD / EV**	**NHSGGC will outline its IMT escalation and information sharing process. Including mapping routes of communication and escalation between the relevant governance groups**	**Jul-21**	The process of IMT escalation is outline in the in the IPCT Incident Management Process Framework.
9.5	**Complete**	**NHS GGC should assure that the governance of the IMT process, its reporting and escalation to Board level, is clearly defined and followed; and that an audit trail of all evidence related to any suspected or actual outbreak is clearly documented and fully reported.**	**Interim Dir of IPC**	**AW**	**Publish IMT reporting and guidance documents. NHSGGC will update its IMT Process framework once complete this will be taken through ICC committees for approval. It will include links to RR, DoC, Audit.**	**Jun-21**	Action embedded in the refreshed IPCT Incident Management Process Framework.
10.1	**Complete**	**NHS GGC must (continue to) develop a comprehensive and searchable database that allows details of microbiology reference laboratory reports to be compared between samples of the same bacteria obtained from different patients or environmental sites.**	**Director of eHealth /COO**	**WE /AL**	**Develop and Implement solution . This is linked to 3.3 and will be developed in line with the review of existing data collection and proposed changes to refine the process**	**Jul-21**	Action Complete. NHSGGC has developed a system to provide the capability to report on various data items in relation to samples, patient locations and sampling data taking into account the need for a more streamlined process for the management of reference laboratory results has been completed. The database system takes data from the Telepath, Specialist Service Providers and the StrainID for water, environmental and clinical samples and results. This data is now searchable and available through a series of reports to the IC Teams. Report with screenshots of new database system available as evidence. Joint session with stakeholders from IC, Microbiology Team and Estates - Database in place - evidence of clinical review provided as evidence of its completion.
10.2	**Complete** A50611329	**The system for integrating microbiology reference laboratory reports into the patient microbiology record needs to be reviewed and strengthened. Similarly, the system for ensuring that microbiology reference laboratory information is available to and used by the IMT process, including the investigation of clusters and outbreaks, needs to be reviewed and strengthened.**	**Director of eHealth /COO**	**WE /AL**	**Develop and Implement solution . Linked to 3.3 & 10.1**	**Jul-21**	As per recommendation CNR 3.1, 3.2, 10.1.

11.1	**Complete**	**NHS GGC should undertake a review of the current effectiveness of the system for collating, storing and integrating both scanned hand written records and digitally recorded records and how this achieves an accurate, accessible and chronologically accurate health record for each patient.**	**Director of eHealth**	**WE**	**Draft report with recommendations, implement and monitor.**	**Aug-21**	A workshop has been held with Health Records Services and eHealth Clinical Leads to assess the effectiveness of scanned and digitally recorded clinical records. An assessment of areas for improvement has been completed. A report has been compiled with the detail of the review and recommendations.
11.2	**Complete**	**NHS GGC should clarify their strategy for further evolution towards fully digital records**	**Director of eHealth**	**WE / DB**	**Paper describing approach, in line with Board's digital strategy, to be completed by Aug 21**	**Aug-21**	GGC eHealth Delivery Plan includes implementation of Active Clinical Notes (ACN) to replace scanned records. This functionality will be available in the TrakCare system following the system upgrade to version T2021 in October 2021. Priority areas for the implementation of ACN are Emergency Department and Nursing Admission Record (My Admission Record - MAR) . Thereafter a programme of implementation will be underway to replace acute scanned notes to complete end 2022. A strategy paper detailing the plan for this has been prepared.
11.3	**Complete**	**Consideration should be given to the integration of the microbiology recommendations regarding the diagnosis and management of infections, as currently documented in the Telepath patient notepad, into the patient clinical record.**	**Director of eHealth**	**DB**	**A paper will be worked up between eHealth and the Microbiology Clinical Director and any actions implemented.**	**Aug-21**	Telepath notepad records any guidance given by Labs staff to the requester or local ward staff regarding a sample result or sample submitted. This is only visible to the internal Lab staff. Following discussions with the Chief of Medicine, Diagnostics -There is already very close clinical liaison with the Haematology Oncology teams and the Paediatric MDTs. The majority of communication is verbal and on a 1-1 basis discussing results and recommendations and advice in terms of treatment. This will often involve follow up dialogue and review. There is also attendance at the Paediatric MDT meetings when required and this can be extended to a regular attendance to ensure further integration. An SBAR report detailing the current use of the Telepath Notepad and recommendation for ensuring relevant information is discussed at the Paediatric MDT and stored in Clinical Portal has been prepared.
12.1	**Complete**	**It should not be possible to code patient activity to a clinical area in which the patient was not present: this should be addressed.**	**Director of eHealth**	**JT**	**Re-release SOP and send out reminders to all staff.**	**May-21**	New SOP in place and staff reminders issued - ongoing monitoring underway.
13.1	**Complete**	**The Paediatric Haematology Oncology service should engage with regular reporting and analysis of adverse events. Admission to PICU is an obvious way of identifying, for audit purposes, the patients most likely to have the most serious (Category I) AE.**	**COO**	**SD / GJ**	**Clinical Governance and Acute - to collaborate on outlining and scoping this work.**	**Aug-21**	Paediatric Haematology Oncology balanced scored is reviewed weekly by the team and is a useful tool which identifies and triggers safety checks for adverse events/GNB. Morbidity & Mortality/ and/or Adverse Event meetings are arranged with key leads where an action plan may be developed and put in place to aid learning and support a continuous improvement culture and core to ongoing clinical audit . The output and learning from these meetings is then escalated and discussed at the Women & Children's Directorate Clinical Governance Forum.
13.2	**Complete**	**The PTT offers a useful tool to identify and monitor trends in the occurrence of adverse events that occur during care.**	**COO**	**SD / AM**	**Publish GGC evaluation report and agree future approach.**	**Jun-21**	Local evaluation of PTT undertaken.
13.3	**Complete**	**NHS GGC should assure and report consistent utilisation of the Datix system, and audit the validity of the classification and risk categorisation given to incidents by its staff.**	**Medical Director**	**JA**			Details Outlined Below:
		Develop a Datix audit schedule with reports on compliance and appropriateness of categorisation establish a Datix			Publish the Datix audit timetable, agree performance measures, monitor implementation.	**Jun-21**	1. Datix Plan has been developed .2. Weekly meetings established between Dir. Clinical &Care Gvnc and Senior team to monitor plan.
		Run initial set of KPIs on Datix system - with findings evaluated and action if required outlined following an evaluation.			Following this we will introduce a implementation plan across NHSGGC.	**Jun-21**	1. KPI's report developed with key data metrics 2. An SBAR has been developed for the Datix Governance Group to support consistent utilisation of the Datix system 3. Both the KPI report and SBAR will be discussed at the Datix Governance Group on 16/07/2021 4.. Minutes of meeting and action log from above group
14.1	**Complete**	**The Paediatric Haematology Oncology service should review the practice of 'challenging' central venous lines in line with evidence for its risks and benefits.**	**COO**	**SD / AM**	**Review report to be published.**	**Jul-21**	Guidance document and SOP have been published. In addition these guidance documents have been made available to all clinical staff through clinician webpage.

		SBAR to be produced by local clinical leads, summarising the key issues currently understood - Secondly an SOP is also to be produced to guide clinical teams on the right time to challenge a central venous line				**Jul-21**	
14.2	**Complete**	**When it is agreed that a central line should be removed for optimal management of a patient's infection, operating theatre and anaesthetic resources must be made available to ensure its prompt removal (within 24 hours).**	**COO**	**SD / NS / AM**	**SOP to be established and compliance to be monitored.**	**Jul-21**	Guidance document and SOP have been published. In addition these guidance documents have been made available to all clinical staff through clinician webpage.
		Emergency theatre provision for prioritising Central line removal - SOP to be established and implemented					
14.3	**Complete**	**The Paediatric Haematology Oncology service should ensure that a decision not to remove a central venous line contrary to the advice of the microbiologists is always documented in the medical record.**	**COO**	**SD / AM**	**Audit report to be drafted.**	**Jul-21**	Process has been established and is in place. The Paediatric Haematology Oncology Service has a routine case by case discussion with microbiology colleagues weekly. In such cases if further discussion is required on the removal central venous line between respective teams - it is flagged and is recorded in the weekly service Balance Score Card. The weekly scorecard is reviewed at General Manager / Clinical Service Manager level on receipt of BSC (weekly). The Service audits the clinical record of any case recorded on Balance score card where further discussion is required and the reason for this. Monthly this is recorded at the department clinical governance meeting. Extract of clinical governance minute covering this point is shared with microbiology.
15.1	**Complete**	**The Paediatric Haematology Oncology service should ensure that Morbidity and Mortality reports are not restricted to a review of patients who die. Future GNE infections should be used as a trigger for an M&M review; to assess management and outcome; and with the inclusion of an action plan to identify approaches to reduce risk and improve care.**	**COO**	**SD / AM**	**Review to be completed and report drafted on its results.**	**Aug-21**	A process has been established and implemented. Paediatric Haematology Oncology balanced scored is reviewed weekly by the team and is a useful tool which identifies and triggers safety checks for adverse events/GNB. The BSC triggers two question: 1. Has a M&M been triggered (or to be triggered)? 2. Is there (or will be) an associated action plan As appropriate, this will be referenced against IMT / PAG related to said infection It will also be listed in the commissioned MM log held by the department and reported through local CG meeting.
15.2	**Complete**	**International consensus guidelines have recently been published for use of antibiotic prophylaxis in Paediatric Haematology Oncology. These should be reviewed by both the service and by the Managed Service Network, and local and network policy and practice should be amended accordingly.**	**COO**	**SD / AM**	**Paper to be produced.**	**Jul-21**	Review has been undertaken. A SOP for managing patient with antibiotic prophylaxis has been implemented. Latest international guidance was used in the develop the SOP.
15.3	**Complete**	**The Paediatric Haematology Oncology service should audit the use of antibiotic prophylaxis against the new policy once implemented.**	**COO**	**SD / AM**	**Paper to be drafted outlining results of review.**	**Aug-21**	SOP as above, an audit of the use of SOP will be undertaken.
15.4	**Complete**	**The Managed Service Network and NHS GGC should review any changes to the use of shared care that have evolved as a result of the service disruption experienced in recent years, and ensure the structures and processes in place adequately address patient safety and staff support across the shared care network.**	**COO / Chair of Network**	**SD / AM / Chair**	**Paper to be provided, following review.**	**Aug-21**	NHSGGC has engaged with the Manged Service Network regarding their involvement at an operational level.
		Re-examine the Board's shared care protocol - audit to be undertaken to examine the shared care pathways and report on findings		**A Murray**			Further engagement with MSN on boards shared care arrangement

From: de Caestecker, Linda
Sent: 10 July 2018 14:33
To: Haynes, Jennifer
Subject: FW: Whistleblowing

Jen
Can you add to the ventilation report, the following summary
I discussed with the lead infection control doctor the 3 versus 6 air changes. The Scottish hospital building note recommends 6 air changes per hour. However the infection control team consider that the additional risk to patients in standard accommodation is negligible as 3 air changes brings contamination down to 5% and it is single accommodation. There has been no transmission of the higher risk pathogens and there are now alternative pathways in place for the very high risk ones such as MERS or MDR-TB. The risk in aerosol generating procedures is reduced by advising to keep FFP£ masks on whilst in the room and for period of time after end of procedure. 1 hour normally, but extended to 2 hours in QEUH/RHC on basis of recent SBAR.

Dr Linda de Caestecker
Director of Public Health
NHS Greater Glasgow and Clyde

From: Kennedy, Iain
Sent: 10 July 2018 13:30
To: de Caestecker, Linda; Inkster, Teresa
Subject: RE: Whistleblowing

Dear Linda,
Teresa and I discussed on Friday, and we have agreed this morning the following bullets as a summary

- Each air change reduces contamination the room by approx 63%
- 3 air changes dilutes airborne contamination to 5% of level at start of time period
- 5 air changes dilutes airborne contamination to 0.67% of level at start of time period.
- Rule of thumb (CDC guidance, personal communication with PHE) is to aim for <1%
- Scottish hospital building note recommends 6 air changes per hour.
- QEUH general single room accommodation achieves 3 air changes per hour
- This was deemed adequate as rooms meant to be at slight negative pressure to corridor
- Investigations in 2016 revealed the negative pressure was not as spec
- Additional risk to patients in standard accommodation negligible for most pathogens (3 ACH still brings contamination down to 5%, single accommodation, closed doors etc)
- Higher risk pathogens (MERS/MDR-TB) – alternative pathways now in place – no transmission of these pathogens noted in QEUH/RHC
- Other risk would be Aerosol Generating Procedures – advice to keep FFP3 mask on whilst in room, and for period of time after end of procedure. 1 hour normally, but extended to 2 hours in QEUH/RHC on basis of recent SBAR.

Best wishes
Iain

From: de Caestecker, Linda
Sent: 10 July 2018 12:06
To: Inkster, Teresa
Cc: Kennedy, Iain
Subject: Whistleblowing

Dear Theresa
Both Tom Walsh and Iain may have mentioned to you this query. As you know I investigated Drs Redding and Peters' whistleblowing concerns recently. They seemed satisfied with my response but all reports are also reviewed by the Board's Whistleblowing Champion and the Staff Governance Committee. The response from the whistleblowing champion was that my report did not adequately address the issue of 3 air changes as opposed to 6 air changes. My view was that this had been dealt with by the actions on the isolation rooms but it would be very helpful if you are able to provide me with a couple of paragraphs explaining actions to cope with the level of air changes.

I know you are extremely busy just now but I wondered if you even had any existing material I could use in my report to address this issue. Thank you for your help.

Kind regards

Linda

Dr Linda de Caestecker
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[redacted]

Whistleblowing Report
Incident Management Team – Ward 6A, Paediatric Haemato-Oncology

1. Introduction

On 21 August 2019, NHS Greater Glasgow and Clyde's (GGC) Medical Director received contact from the Medical Director of NHS National Services Scotland regarding a number of concerns which had been raised confidentially by a member of staff in NHSGGC. These were about the Incident Management Team (IMT) in NHSGGC for Ward 6A, which relates to an infection control situation. NHSGGC were asked and agreed to take these concerns forward under the local Whistleblowing Policy.

2. Background

The IMT is formed of multidisciplinary colleagues to consider the infection position for paediatric haemato-oncology patients. This cohort of patients were decanted out of Wards 2A/B of the Royal Hospital for Children (RHC) in September 2018 due to ventilation issues and infection concerns, and, whilst these wards undergoes a refit, the patients are temporarily placed in Ward 6A of the Queen Elizabeth University Hospital.

In August 2019, following further infection concerns, new admissions to Ward 6A were restricted. Existing patients continue to be treated there, and newly diagnosed patients are either admitted to another ward, or to another centre. The IMT continues to manage this situation, and their main responsibilities are to:

- Develop theories and suggestions for testing as to which cross-transmission pathways and clinical procedures may be involved in causing the infections, to try and find the cause.

- Determine whether there are any additional cases that need to be considered, and what control measures (i.e. actions to help control the likelihood of risk) may be necessary.

- Confirm that all incident control measures are being applied effectively and are sufficient.

In addition to this, there is currently an internal review, external reviews, and a public inquiry which are all considering a number of areas across the aforementioned hospital sites, and the public inquiry is also considering the Children's Hospital in Edinburgh. There has also been significant media interest in infection related issues in NHSGGC.

The IMT was chaired by Dr Teresa Inkster, Consultant Microbiologist. This role was taken over by Dr Emelia Crighton, Deputy Director of Public Health in August 2019.

The nature of this IMT is important and high profile. On receipt of the whistleblowing allegations, it was therefore agreed that the investigation would be carried out jointly between Dr Linda de Caestecker, Director of Public Health for NHSGGC (who is a named senior manager in the Whistleblowing Policy for investigating concerns), along Ms Barbara Anne Nelson, Director of Workforce in NHS Fife, to help give assurance of objectivity and impartiality and to advise if formal HR processes are required.

3. Concerns

The specific concerns raised were:

a. The Chair (of the IMT) is unable to do her job in protecting patients from infections due to the culture and organisational failings, citing lack of support from management.

b. Critical information has been denied to the Chair, or false accounts given by high level managers.

c. Microbiology/Clinical judgement regarding the fact that there is a real issue with unusual environmental pathogens in Haematology paediatric patients is being continuously questioned.

d. Lack of transparency regarding communication.

Whilst these were the specific concerns, other issues were highlighted during the investigation which were relevant. Where appropriate, these will be addressed within this report, and where it would be more reasonable for these to be considered out with the whistleblowing process, this will be highlighted.

4. Methodology

It was agreed that given the nature of the concerns raised, the most appropriate investigatory method would be to interview key staff involved with the IMT. The following colleagues were therefore interviewed:

- Dr Iain Kennedy, Consultant in Public Health Medicine
- Mr Tom Steele, Director of Estates and Facilities
- Dr Chris Deighan, Deputy Medical Director
- Ms Sandra Devine, Associate Nurse Director for Infection Control
- Dr Dermot Murphy, Consultant Paediatric Oncologist
- Dr Scott Davidson, Deputy Medical Director for Acute Services
- Dr Teresa Inkster, Consultant Microbiologist
- Dr Christine Peters, Consultant Microbiologist
- Dr Brian Hones, Head of Microbiology
- Mr Jamie Redfern, General Manager of Hospital Paediatrics and Neonates
- Ms Jen Rodgers, Chief Nurse of Hospital Paediatrics and Neonates

In order to ensure absolute confidentiality, none of the contents of this report will be attributed to individuals.

5. Findings

Before addressing the specific concern raised by the whistle-blower, there were some overarching themes and messages which arose from the interviews, which were helpful in giving some context.

a. The Role of the IMT and the Chair

The subject matter of this IMT is hugely emotive given the cohort of patients, and it was clear from most of those interviewed that this has been at the forefront of people's minds, and that colleagues want to ensure they do the right thing.

For this reason, there was recognition and appreciation that chairing an IMT of this nature, where the stakes are so high, can be a pressurised position, and therefore good support is vitally important.

An IMT is usually a short life group, however, this situation has been different, as there have been consecutive IMTs looking at related but different incidents. This is not the usual pattern of IMTs, and a sense of the impact this has had on those involved was expressed, in terms of stress and fatigue. It was noted that this may

also be as a result of the significant efforts that have gone into resolving the issues, without a clear outcome as yet.

b. Divergence of Views

It was clear that there were divisions within the IMT. Although some described this as being between clinicians and management, that was not the findings of the investigation, and instead it was more complicated than that. Most of those interviewed, which included clinical colleagues, described their feeling that one or two individuals were trying to make evidence fit hypothesis, rather than considering the evidence then forming a hypothesis. Phrases like “chasing ghosts” or “going down rabbit holes” were used.

The interviews therefore gave an impression of two opposing views: those who feel that there continue to be infection issues, and those who recognise that infections will occur in this immunocompromised group of patients but that the evidence would now suggest (in terms of reduced infection rates and other indicators), that it is safe to re-open Ward 6A. This was described in the context of balance of risk.

Related to the above point, there was a recurrent view that the paediatric oncologists were in a difficult position due to the divergence of views from their expert and skilled colleagues in infection control and public health.

c. Practical Arrangements

Most interviewees discussed concerns about the practical arrangements of the IMT, and how they were not conducive to an effective meeting. These included:

- Inconsistency with the meeting rooms, which were varied, and not always best served to accommodate the volume of attendees.
- The room set up not always being helpful in facilitating a helpful discussion – for example, some colleagues sitting round a table, some on chairs on the periphery of the room.
- Meetings were scheduled late in the day, which then ran on well beyond normal working hours.
- Papers and minutes have been sent to attendees on the day of the meeting, or presented at the meeting, which did not allow adequate time to review them in advance.
- A disproportionate amount of time being spent reviewing minutes of the last meeting.
- Colleagues coming and going out of meetings early and late, which interrupted the flow of the meeting.
- Colleagues attending the meeting without it being clear why they were present, as they were not on the distribution list for attendees.
- Mistrust of the pre-meetings which have taken place.
- Colleagues attending the meeting reporting to others during / immediately after the meeting (e.g. via email) what had been discussed, without going

through recognised channels, and information therefore potentially being confusing.

d. Behaviour

All of those interviewed had either attended or were aware of the IMT meeting which took place on 14 August 2019 due to poor behaviours which had been reported.

There was some variation in opinions of behaviours although everyone interviewed identified that behaviours at times were not constructive to trust and good working relationships. In particular the behaviour of Dr Peters at the meeting on 14 August 2019 was described as aggressive and confrontational. It is acknowledged that people can act differently when under pressure or when there are strong opposing views, and allowances to a degree can be made for that, but feeling stressed does not excuse the behaviour described.

Some interviewees were asked about challenging bad behaviour, either within meetings or via HR processes, and although there was some descriptions of their escalating their concerns, the general impression was that there was an underlying reluctance to do so.

During the interviews whilst most individuals described a perception of challenging behaviours being displayed to Dr Peters (including this view being held by Dr Peters herself) it has to be noted that there was a significantly smaller number expressing a differing view of the interactions at the meeting as stated above.

In addition, some people interviewed described a culture of intimidation in the microbiology team due to the ways of working of in particular Dr Peters.

There was also some reference to clinical staff being dismissive of the views of non-clinical staff, and in one interview in particular there was some language used about non-clinical staff that would substantiate this perception.

Coming back to the specific issues raised within the whistleblowing allegations, and using the information above as a context, the findings were as follows:

e. The Chair (of the IMT) is unable to do her job in protecting patients from infections due to the culture and organisational failings, citing lack of support from management

It was not possible to ask the whistle-blower for clarification on this point due to the anonymous nature, but it was assumed due to the timing of the allegations that this referred to when Dr Inkster was the Chair.

As previously noted, the importance of the Chair in a situation like this was absolutely recognised, as clearly this is a high stakes situation, and therefore it is vital the Chair is supported in his / her role. Whilst this report does not wish to attribute comments to individuals, it would be impossible to address this point without reference to Dr Inkster's interview.

During the discussion with Dr Inkster, the impression was that she indeed did not feel supported during her time as Chair. Whilst the allegations specifically reference culture and organisational failings, as well as lack of support from management, from the interviews that took place, it was felt there were also other reasons for this. The main point that was expressed was that Dr Inkster being both the Chair and a key contributor of expertise to the meeting was incompatible, and that it was impossible

for her to both effectively Chair the meeting, and also present findings or data. This was not personal to Dr Inkster, but rather that no one would be able to do this dual role.

f. Critical information has been denied to the Chair, or false accounts given by high level managers

Information being denied to the Chair was not an issue that emerged from the interviews, although differing and incomplete data sets, and information being sent out on the day of an IMT, thus not giving attendees enough opportunity to fully review, was a concern.

There was a perception from one participant that the current Chair – Dr Crighton – has an agenda to close down the IMT and that the incident is now resolved.. However, this was a lone view, and others who were asked noted they felt Dr Crighton was an effective Chair, who promoted respectful discussion.

Again, due to the anonymous nature of the allegations, it was not possible to ask for clarity in relation to this point, and this may have impacted on the investigation.

g. Microbiology/Clinical judgement regarding the fact that there is a real issue with unusual environmental pathogens in Haematology paediatric patients is being continuously questioned

It was apparent, as described earlier, that there are opposing views as to whether or not the ward is safe to open, which relates to this point. Respectful challenge is healthy and effective in an IMT in order to get to root causes, but it was clear throughout the interviews that differing views at some points had not always been welcomed, which created a defensive atmosphere.

Whilst it is fully recognised that there are experts in certain subjects, there did appear at times to be a dismissive attitude to anyone who was an expert in a different field, as though their view point was not important. Collaborative and multi-disciplinary working is key in this situation, where views are given in a way that is both respectful, and also respected.

h. Lack of transparency regarding communication

It is unclear what specifically was meant with this allegation. It could have been referencing a range of points covered previously in this report, but without clarification, it has not been possible to address this point in full. In the interviews there were no specific examples of lack of transparency other than the perception about the pre-meetings

As a result of the interviews, there were other findings that whilst did not strictly relate to the concerns raised by the whistleblower it was important to capture so that these can be taken forward out with this process. These were:

- The need for the IMT to come to a conclusion. There was a clear and common view that external expertise is needed to help drive this forward.

- Issues were reported in terms of involvement and influence with Significant Clinical Incident investigations for individual patients affected.

- A situation with a parent, whom two members of staff met with, was raised. One member of staff expressed concern that they had been advised not to disclose any information, whereas the other described a scenario where they had been asked to

be thoughtful of the timing of disclosing information, because further information was awaited. From what was described, this seemed to be a genuine misunderstanding. However, the way Dr Inkster communicated this to the parent appeared to be unhelpful.

- The current vacancy for a lead Infection Control Doctor, and the impact that is having both strategically and operationally. It was reported that it is difficult to get decisions made in the hospital

- A reported lack of cohesive working within the Microbiology / Infection Control teams, and the impact of this on clinical services.

- Striking the right balance of infection control measures for children, in terms of a holistic and realistic approach.

6. Conclusion

It was clear from the interviews undertaken that this is a complex, emotive and extremely important situation. This has inevitably caused some tension and pressure, and whilst there was some evidence of good collaborative working, there was also some reports of concerning behaviour, and the impact that has had on being able to reach a conclusion.

Restoring confidence in the clinical team who treat this patient group is essential, in order to be able to resume the service in a robust and safe way. There was, however, concern about how this is achieved if conflicting views and poor behaviours continue. Whilst it was recognised and accepted that tensions can run high in IMT meetings, the impact of poor behaviour from some individuals was a theme expressed amongst many of those interviewed.

In circumstances when difficult judgements and decisions are required that can impact on patients' health, people can get heated in their discussions. The Board welcomes feedback on areas requiring improvement and ways of working that must be addressed. At the same time however, the Board expects all of its staff to behave with respect, reasonableness and care for their colleagues whether peers, juniors or seniors; managers or clinicians.

7. Recommendations

The table below breaks down the recommendations proposed.

	Area / Recommendation	Lead	Timescale
a.	**Practical Arrangements for IMTs** It is understood that the Standard Operating Procedures for future IMTs are being reviewed. From the learning from this whistleblowing investigation, this would be a welcome and essential undertaking, and the following areas should be covered within it:		
	i. An IMT should have a defined attendees list, and only those on it should attend meetings. The only exception to that should be if a nominated colleague attends on behalf of an IMT member during a period of absence.	**IPCT and public health**	
	ii. There should be ground rules for the IMT – for example, attendance, minutes, circulation of papers and so on.	**IPCT and public health**	
	iii. An appropriate meeting room should be taken out of	**IPCT and**	

	circulation during the lifespan of an IMT to be at their full disposal.	**appropriate director**	
	iv. If there are to be pre-meets before an IMT, it must be made very clear to the wider group what the purpose of it is, and this should be to help facilitate a well organised IMT; not for decision making purposes.	**IPCT**	
	v. An experienced minute taker should support the IMT.	**IPCT and COO**	
b.	**Support to IMTs and the Chair** This report has discussed the high pressure, emotive nature of the subject matter, and it is clear this has taken its toll on staff. Support to both the Chair and IMT members is therefore essential.		
	i. IMT situations should be categorised on severity / risk. For those ranked at the higher end of the scale, it should be considered whether some key colleagues should come out of their substantive posts temporarily, in order to give full attention to the IMT.	**IPCT and public health**	
	ii. The Chair should not carry out this role and also be expected to be a full expert participant. If an expert of the same role / specialty as the Chair is needed, this should be in addition to the Chair.	**IPCT**	
	iii. Chairs should receive specialist training on how to fulfil this role.	**IPCT**	
	iv. High profile IMTs should have a vice chair for added support, and this should include constructive feedback, reflection and a chance to de-brief	**IPCT**	
	v. The organisation should ensure that all participants of a high profile IMT have access to support via the vice Chair	**IPCT and CMT**	
c.	**Behaviours** Concerns regarding behaviour was something discussed in all of the interviews that took place. Recommendations around are therefore:		
	i. As well as the ground rules noted in section 7 a ii, there should be rules of engagement for the IMT, which aim to create an atmosphere that supports respectful and respected debate, done in a kind and helpful way.	**IPCT**	
	ii. It should be explored whether a piece of bespoke Organisational Development would assist the microbiology team at QEUH and also the current IMT if it is likely to continue longer term	**OD and diagnostics director**	
	iii. Staff who raise concerns about individuals should be signposted to the relevant HR policies, and advised to utilise these when appropriate.	**Director of HR**	
	iv. Discussions should take place with the Chief of Medicine for the Diagnostic Directorate and HR to consider how best to support Dr Peters to enable a more productive way of working with colleagues at times of stress and when opposing views are held.	**DPH and Chief of Medicine**	

Linda de Caestecker
Director of Public Health, NHSGGC

Barbara Anne Nelson
Director of Workforce, NHS Fife

December 2019

Minutes of the
NHS GREATER GLASGOW AND CLYDE
BOARD INFECTION CONTROL COMMITTEE
held on
Monday 28th January 2019 at 2.00pm in
Meeting Room B, J B Russell House, Gartnavel Royal Hospital

Present:

Dr Jennifer Armstrong (chair)	Medical Director
Dr Iain Kennedy	Consultant, Public Health
Tom Walsh	Infection Control Manager
Sandra Devine	Associate Nurse Director, Infection Control
Liz McGovern	Specialist Pharmaceutical Public Health
Pamela Joannidis	Nurse Consultant, Infection Control
Dr Teresa Inkster	Lead Infection Control Doctor
Suzanne Clark	Lay Representative
Dr Rosie Hague	Consultant in Paediatrics ID
Mary Anne Kane	Associate Director of Facilities Management
Dr Chris Jones	Chief of Medicine
Dr Andrew Seaton	Consultant in Infectious Diseases and General Medicine

In Attendance
Ann Lang (minutes)

Apologies received:
Kenneth Fleming

Item		Action
01.	**Welcome and Apologies** Dr Armstrong welcomed everyone to the meeting and apologies were received from the above mentioned.	
02.	**Minutes of the meeting held on 28th November 2018** The minutes of the previous meeting held on 28th November 2018 were agreed as an accurate record with the following amendments:- Page 2, first para – should read ”In England limited data is published for English trusts with a 12 month rolling rate for *Klebsiella* and *Pseudamonas* bacteraemia”. Page 3, first para – delete 1st sentence. Should then read “ Kenneth Fleming replied that if ....” Page 3, 2nd para, delete last sentence. Page 5, Item 6.2, 3rd para – delete “Calpol” and replace with “other therapeutic drugs”. Page 5, Item 6.2, 4th para – should read “ For Quarter 3 there has been a significant reduction in overall use of antibiotics”. Page 5, Item 6.2, 6th para – should read “...prescribing in GGC is in primary care. Dr Armstrong commented ...”.	

Item	Action

Page 6, Item 6.5, 2nd para – should read "Dr Kennedy reported that in the first phase of screening there were 54 community contacts. 8 of these patients have been readmitted since first phase screening and all cases appear to be negative. The second phase of screening, relating to additional contacts of the new index case is ongoing. 24 of the patients had contact prior to the first known cross transmission, so they will receive warn and inform letters asking them to be screened on next admission, rather than be screened in the community. All contacts have had a tag added to their electronic notes. The aim is to contact all the second phase contacts in 1st or 2nd week in December, however if there is a delay there would needs to be a discussion to determine ..."

Page 6, Item 6.7, 2nd para – should read "... in terms of BMT beds ...".

Page 9, Item 8, 1st bullet point – should read "The current uptake is ahead ...."

Page 9, Item 8, 2nd bullet point – should read "... the Outbreak Control Plan with aim to have review completed by March. It will come to IPC committees for information. The Scottish Government Managing Public Health Incidents guidance has been updated".

Page 9, Item 8, 3rd bullet point – should read – "There have been problems with a couple of disease and organism notifications and a couple of near misses. He said they are preparing a document for Labs and whilst it is not the responsibility of Infection Control to notify Public Health of any of these, communication between the two teams is helpful".

03. Rolling Actions List

A copy of the Rolling Action List was distributed with the agenda and updated at the meeting.

Actions Update

- Tom Walsh to prepare a paper on the current position within GGC regarding FFP3 masks and to also note the clinicians opinion and to write formally to HPS. *Update* – Letter sent to HPS on 14th January 2019 outlining our position and awaiting a response. Tom Walsh to forward this to BICC and AICC members. **TW**

- Jennifer Rodgers is to check with other UK health authorities that have Paediatric BMT units to compare GGC CLABSI median rate of 6.33. Data has been requested from other centres and it was agreed to ask Jen Rodgers for an update. Dr Kennedy reported that in Scotland there is no standard rate of what is acceptable in a Paediatric unit. In England limited data is published for English trusts with a 12 month rolling rate for *Klebsiella* and *Pseudamonas* bacteraemia. From this he said that rates within GGC are in the middle of the four applicable English trusts. Dr Armstrong asked for this information to be shared with the Woman and Children's governance team. Scottish Government have advised that Imperial College, London can act as a benchmark for GGC. *Update* – Dr Inkster and Professor Gibson are to set up a teleconference with Imperial College. **TI**

- Dr Inkster to provide an update regarding the meeting with Renal Consultants to discuss the number of SABs in this area. *Update* – A meeting with Renal Consultants has been arranged for 30th January 2019.

- It was agreed that Tom Walsh will check the HAI Executive Lead role in the National Monitoring Framework. *Update* – Tom advised that he spoke with Lesley Shepherd and they have agreed to revise this section.

- Dr Jones asked for an update on using whiteboards to record patients with a PVC or CVC. *Update* – The Chief Nurses and Chiefs of Medicine have agreed to ensure the PVC Care Plan is up-to-date and this will also include inpatients in Mental Health. Jen Rodgers is creating a separate Care Plan for Women & Children directorate.

Item	Action
• Dr Seaton is looking into the Antimicrobial Nurse role and Funding is now being sought via Pharmacy. *Update* – Dr Seaton to provide an update at the next BICC regarding the Pharmacists supporting the IV to oral switch.	**AS**
• Dr Inkster to look into required air changes after an AGP is performed and is waiting on information from Estates. *Update* – Information is outstanding for Clyde sector and the Director of Facilities has been emailed for this information. The information for QEUH and GRI are fine. Mary Anne to follow this up.	**MAK**
• It was agreed that any agreements made locally by the IPCT not to adhere to the national manual must go through the AICC then the BICC and written out and sent to HPS as to why. *Update* – Dr Inkster updated that a group has been set up to meet in February and an SBAR for GGC has been agreed.	
04. Matters arising HSE Inspection - Infectious Diseases Unit As Kenneth Fleming sent his apologies for the BICC meeting this item will be carried forward to next meeting. Dr Seaton confirmed that fit testing has been completed.	**KF**
05. Standing Agenda Items **(a) Draft HAI Reporting Template (HAIRT) for NHS Board Meeting** A copy of the draft HAIRT for February was issued with the agenda. Tom Walsh provided an update on some of the information contained in the report:- • For Quarter 3 there were 90 validated *Staphylococcus aureus* Bacteraemia (SAB) cases which is a Healthcare Associated rate of 16.2 cases per 100,000 bed days. SABs remain a priority and the SAB group continues to meet on a regular basis. • 111 validated *Clostridioides* (formerly *Clostridium*) *difficile* (CDI) cases in ages 15 and over were reported for July to September 2018 with a Healthcare Associated rate of 18.6 cases per 100,000 bed days. This is above the national rate. There was an increase noted in August and all appropriate actions were taken. • With regards to MRSA Clinical Risk Assessment (CRA) compliance for GGC in Q3 (October - December 2018) has dropped to 69%**.** The admission document is in the process of being updated which should result in improvement. • For Carbapenemase-Producing Enterobacteriaceae (CPE) compliance in Quarter 3 GGC had a rate of 76% which is an improvement from last quarter. • There were 6 wards closed in 2 hospitals due to Norovirus activity in November and December 2018. **(b) Monthly Activity Report for Acute Clinical Governance Committee** A copy of the Monthly Activity report for the Acute Clinical Governance Committee was distributed with the agenda and noted. Chris Jones advised that the only exception to report is that four of the device related SABs is in relation to Renal. **(c) IPC Work Plan** A copy of the IPC Work Plan for 2018/19 was issued and Sandra Devine updated on the following:- • Work is progressing on the prescribing data. • Guidance for urinary catheters is not fully completed. • With regards to the IPCAT audits Sandra advised that systems are being set up where the area is scoring red and the ward/department are to return their update within the month and complete a rapid improvement plan.	

Item	Action

(d) SOPs

The following SOPs were issued to the committee for approval and Pamela Joannidis provided an update on the following:-

- CPE SOP
  - HPS have updated their contact section and this has been updated in the SOP on page 6.
  - The CPE Toolkit has been updated by HPS and the section on Screening on Admission/Readmission in the SOP has been updated.

  The committee approved the SOP.

- Hand Hygiene SOP
  Following the SSI review regarding surgical scrub procedures this has been updated in the SOP to ensure alignment with the National Infection Prevention and Control Manual.
  The Hand Hygiene SOP was approved.

- RSV SOP
  In the Persons at Risk section the word "elderly" has been removed.
  The RSV SOP was approved.

- Chickenpox SOP
  - At the last BICC Pamela reported that we were asked to review our SOPs to Appendix 11 and the only SOP that is not in alignment is the Chickenpox SOP in relation to the FFP3 masks. It was agreed to postpone this pending reply from HPS.

- Mask Fit Testing SOP
  This is a new SOP and the committee approved this SOP.

- Decontamination SOP
  - The SOP was updated with the contact time for actichlor. The manufacturer recommends 2 minutes but the manual states 3 minutes. HPS are in the process of changing the 3 minutes to a minimum of 2 minutes.

  The committee approved the Decontamination SOP.

06. Exception Reports and Updates

(a) vCJD Group

The CJD Group are in the process of trying to fully implement the 2006 NICE guidelines. Dr Kennedy advised this relates to any children born after 1997 whereby disposable instruments should be used.

At the CJD meeting in December 2018 Dr Kennedy reported that in August Paediatrics had ran out of decontamination stream 1 drill theatre instruments and patients were being moved onto stream 2 theatre instruments due to this. This was entered onto Datix and new instruments are being purchased. Dr Kennedy advised that he is meeting with the clinical team to discuss this. He said that in terms of clinical risk this is negligible, but there is the governance issue as to why was it not noted that instruments were not available and neither Infection Control or Public Health were notified.

(b) Antimicrobial Management Team

Dr Seaton reported that GGC is an outlier with regards to antibiotic use. He said they will be looking across the board and focusing on IV antibiotic use as GGC uses more antibiotics compared to other boards. In December, he advised that information was sent out detailing how much antibiotic is used and there was a link to the IV Oral Guidelines. Temocillin use was highlighted as this is GGC's biggest spend, although IV antibiotic use has come down.

Item	Action

Dr Seaton confirmed that he is no longer the chair of AMT but is the chair of the AUC meeting. Beth White is now the chair of AMT. Dr Armstrong requested that this information is shared with AICC.

(c) Acute Infection Control Committee (AICC)

A copy of the agenda for the last meeting in January and the minutes of the meeting held in October were distributed with the agenda and noted.

At the meeting Chris Jones reported that they discussed the CPE outbreak in the north and communications regarding this and how screening was carried out.

Dyson fans were also discussed and information is awaited from HPS regarding this.

(d) Partnership Infection Control Support Group (PICSG)

A copy of the agenda for the meeting held in January and the minutes of the previous meeting were noted.

The group discussed fit testing and who would carry this out and if possibly the district nurses could do this.

Flushing of taps was also discussed regarding whose responsibility it is. Mary Anne Kane stated this is different in Partnership areas and it is the joint responsibility of nursing, clinical and facility staff and needs to be carried out by the people that are based there and not facility staff. Pamela Joannidis informed the group to discuss this with their representative for the Water Safety Group.

Two wards in Stobhill which opened in spring of this year have both had IPCAT falling into the GREEN category which is disappointing and will be discussed with the Lead Nurse.

(e) Recent Outbreaks/Incidents

An update on the recent incidents were provided as follows:-

- **Cryptococcus, QEUH**

  Dr Inkster provided an update on the investigations continuing into the two isolated cases of Cryptococcus within the Queen Elizabeth University Hospital.

  Infection Prevention & Control were alerted on 17th December 2018 to two cases of Cryptococcus in an adult and a child. The organism is harmless to the vast majority of people and rarely causes disease in humans and is caused by inhaling the fungus *Cryptococcus*. These fungi are primarily found in soil and pigeon droppings.

  A PAG was held on 18th December and a number of control measures were immediately put in place, and there have been no further cases. The potential source was found in a non-public area away from wards and the droppings were removed by Pest Control and the area cleaned. Air sampling was carried out in the area and will be retested with the results due next week. As an additional precaution, portable HEPA filters have been installed in the units in specific areas. These HEPA machines filter the air continuously to reduce any bacteria or fungi in the air. A sub group will be set up with microbiology representatives, HPS, HFS and will also include Peter Hoffman from Public Health England. Dr Seaton also inquired whether the 2 cases could be sporadic cases with previous cryptococcal infection which was reactivated due to severe immunosuppression. It was agreed that there would be a subgroup set up and would look at all the hypothesis..

  Dr Armstrong requested this section is expanded in the HAIRT for Board members and to also include narrative regarding Comms.

Item	Action

- **Murcomycosis ICU, QEUH**
  The Microbiology department reported two cases of Mucoraceous Mould in patients in the Intensive Care Unit in QEUH in January 2019. One patient was infected and one patient was colonised. Mucoraceae is a fungi that can cause infection most commonly in the lining of the respiratory tract. Dr Inkster reported that one patient is still unwell and the other patient has been transferred from ICU [redacted].

  Investigation is ongoing into the potential source of this fungi. No cases have been reported since the 15 January 2019 and results from air sampling are expected week beginning 28 January 2019. A review of potential source i.e. dialysis point has found no visible mould but pulp was identified and remedial work will be carried out. An IMT was held this morning and investigations are continuing into the potential source.

  Issues have been identified with flooring as mould was found underneath and this is being fixed. Linen was looked into to see if the linen was damp and the storage area will be examined as one of the patients had a chest drain.

  This incident was reported as Red on the HIIAT but Dr Inkster said to note that this is not linked to the Cryptococcus incident but due to the potential for increased public anxiety.

- **Other Incidents**
  NICU, Princess Royal Maternity, GRI
  Pamela Joannidis updated that an IMT was held on 25th January regarding three cases of an unusual strain of *Staphylococcus aureus* bacteraemia in NICU at Princess Royal Maternity with two of the cases having the same spa type.

  An action plan has been developed and the unit has had a full terminal clean with twice daily enhanced cleaning put in place. An Infection Control audit has been completed and resulted in a green score.

  A further IMT will be held later today and will consider staff screening HPS will also take part in the IMT meeting by teleconference. A press holding statement has been prepared. Discussion took place at the IMT regarding the score of red for the HIIAT even though there were no new cases. This was scored red due to public anxiety. Pamela Joannidis stated that GGC have asked HPS to look at future HIIATs scored as red as ours are due in part, to media reporting.

(f) HEI Steering Group

There was a recent HEI inspection to RAH which resulted in 8 requirements and 2 recommendations. The feedback received on the day was positive and the draft action plan is due to be returned by 19th February.

(g) Water Ventilation Issues at QEUH and RHC

There has been bacteria in the water system in RHC but there have been no water related cases since September 2018.

GGC have taken advice from HPS, HFS and national/international water experts as to appropriate remedial actions. Installation of a continuous (low level) chlorine dioxide water treatment system has been completed in RHC and should be completed in the adult hospital by the end of March 2019. Mary Anne Kane advised that the Water Technical Group cannot be stood down until TVCs are at an acceptable level.

Item	Action
She said the results appear to be better than anticipated and the Water Technical Group continue to meet fortnightly. Dr Hague commented that there is a debate regarding the number of sinks that need to be changed and is concerned regarding the implication for her patients. Dr Inkster replied that there was agreement to reduce the number of sinks and remove the trough sinks but there will still be sinks available. Mary Anne Kane commented that they looked at outlets and there is to be a revision to the national guidance. She agreed to speak with Tom Steele and Jamie Redfern to ask them to meet with Senior Clinicians to discuss the plans regarding the ventilation and sinks.	MAK
(h) SAB Steering Group The SAB Steering group are due to meet next week. Chris Jones reported that the Chiefs of Medicine have provided nominations for Chief Residents to participate in the work of the group. Twice daily checks are carried out with regards to SABs in the wards. Additional information has been added to the surveillance field and this includes how many days a line has been in for and if the patient is a medical boarder. In relation to the PVC care pack Procurement could not source a preferred supplier. The supplier that provides the packs to NHS Ayrshire & Arran said that they can provide GGC with 6 packs as a trial in our wards and Sandra Devine will arrange the distribution of these. Dr Armstrong requested that a representative from Woman & Children directorate is part of the SAB group. Sandra Devine informed that Jen Rodgers is looking at a PVC Care Plan for Paediatrics as well as adults and will discuss this with Dr Hague as there may well be a Care Plan for Neonatal and Paediatrics.	
(i) Cowlairs CDU Tom Walsh reported that Michael Murphy, Consultant Microbiologist is now working with Alan Stewart. He said this has been funded until the end of the fiscal year and will be reviewed in March 2019. Environmental testing will now be provided at GRI Lab instead of an external provider being used. Mary Anne Kane advised that there are still some mould amounts coming back and Alan Stewart has forwarded these to Dr Inkster. She said the total count is 68 and only one is fungus. The acceptable rate is 50. Weekly checks are also ongoing regarding any SSI cases relating to mould and there have been no cases reported.	
07. New Business / Documents Received **(a) Excess IV Antibiotic Use, IVOST and Temocillin Guidance** As discussed earlier.	

Item		Action

08. Update from Public Health Protection Unit

Dr Kennedy provided an update on some of the ongoing work in PHPU:-

- There was a Hepatitis A case in a primary school child and the children in the school this relates to will now be vaccinated. A meeting with Parents has been arranged for tomorrow and a Press Statement will also be released tomorrow.

09. Review of Actions

- Tom Walsh to forward the letter sent to HPS regarding GGC's position in relation to FFP3 masks.
- Dr Inkster and Professor Gibson are to set up a teleconference with Imperial College to discuss *Klebsiella* and *Pseudamonas* bacteraemia.
- Dr Seaton to provide an update at the next BICC regarding the Pharmacists supporting the IV to oral switch.
- Mary Anne Kane to follow up information outstanding for Clyde sector regarding the air changes after an AGP is performed.
- Kenneth Fleming to provide an update on the HSE inspection.
- Mary Anne Kane to speak with Tom Steele and Jamie Redfern to ask them to meet with Senior Clinicians to discuss the plans regarding the ventilation and sinks.

10. AOCB

- Dr Inkster reported that portable HEPA units are being used in Ward 6A. She said that high particle counts were found in the ward and an issue was identified with the sealant in some of the shower rooms. In order for remedial works to be completed some very vulnerable children were moved toward 4B and the remaining haemato-oncology patients moved to the Clinical Decision Unit in the children's hospital. She said this will be a short term decant for approximately four weeks.

11. Date and Time of Next Meeting

The next meeting has been arranged for Monday 25th March 2019 at 2.00pm and will be held in Meeting Room B, Ground Floor, J B Russell House, GRH.

2019 Meeting Dates

Date (2019)	Time	Venue
25th March 2019	2.00pm – 4.00pm	Meeting Room B, Ground Floor, J B Russell House, GRH
3rd June 2019	2.00pm – 4.00pm	Meeting Room B, Ground Floor, J B Russell House, GRH
29th July 2019	2.00pm – 4.00pm	Board Room, Admin Building, GRH
7th October 2019	2.00pm – 4.00pm	Meeting Room B, Ground Floor, J B Russell House, GRH
25th November 2019	2.00pm – 4.00pm	Board Room, Admin Building, GRH

From: Devine, Sandra [redacted]
Sent: 30 July 2021 18:27
To: Angela Wallace [redacted]; Steele, Tom
Subject: Fwd: PICU

Hi
Think that's us?
Sandra

Get Outlook for Android

From: Sandra.Devine[redacted]
Sent: Friday, July 30, 2021 6:25:32 PM
To: Laura Imrie [redacted]
Subject: Re: PICU

Thanks Laura have a good holiday
Sandra

Get Outlook for Android

From: Laura Imrie [redacted]
Sent: Friday, July 30, 2021 5:27:49 PM
To: Devine, Sandra [redacted]
Subject: RE: PICU

Thanks Sandra

I will update CNOD that you have shared the improvement plan and that we are content this will address the recommendations.

Have a nice weekend.

Laura

From: Devine, Sandra [redacted]
Sent: 30 July 2021 17:15
To: Laura Imrie [redacted]
Subject: RE: PICU

Hi Laura
Apologies I missed that requirement. Please find update attached.
Kind regards
Sandra

Sandra Devine
Acting Infection Control Manager

NHS Greater Glasgow & Clyde
[redacted]

If you require an urgent response can I please ask you to telephone me as I am often in meetings and away from the office and unable to check voicemail until the end of the day. Thank you

---

From: Laura Imrie [redacted]
Sent: 30 July 2021 16:29
To: Devine, Sandra [redacted]
Subject: RE: PICU

Hi Sandra

Thanks for sharing your improvement plans.

The only comment we have is the oversight of annual validation which appears currently not to involve the IPCT. We would suggest considering how the IPCT have oversight and engagement in this process.

Many thanks

Laura

From: Devine, Sandra [redacted]
Sent: 29 July 2021 12:30
To: Laura Imrie [redacted]
Subject: PICU

Hi Laura
I was just wondering if there was any update on the PICU improvement plan/SBAR. I would like get both docs through the governance groups and update Angela if possible.
thanks
Kind regards
Sandra

Sandra Devine
Acting Infection Control Manager
NHS Greater Glasgow & Clyde
[redacted]

If you require an urgent response can I please ask you to telephone me as I am often in meetings and away from the office and unable to check voicemail until the end of the day. Thank you

Mandatory - Healthcare Infection, Incident and Outbreak Reporting Template (HIIORT)

Initial assessment to be completed within 24 hours for all HIIAT Red and Amber; for HIIAT Green complete only if HPS Support requested.

Section 1 :Contact Details	
NHS Board/Care organisation	Greater Glasgow and Clyde
Date and time of reporting	02.07.20
Person Reporting and designation	Lead IPCN Gillian Bowskill / Prof A Leanord
Telephone number and email	[redacted]
Section 2: Infection Incident/outbreak Details	
Care facility/hospital	Queen Elizabeth University Hospital
Clinical area/ward and speciality	Ward 6A – Currently occupied by decanted paediatric Haemato-oncology population (Inpatient and day care services)
Section 3: Initial assessment	
Type: Incident/outbreak/ data exceedance e.g. Gastrointestinal, decontamination failure	Weak positive *Cryptococcus* test result for 1 patient.
Infectious agent known or suspected	*Cryptococcus*
Case definition	Positive reaction on Cryptococcal antigen test
Date of first case (if applicable)	[redacted].06.20

Total number of confirmed patient cases	Total number of probable patient cases	Total number of possible patient cases:	Total number of staff cases:
0	0	1	0

Number of patients giving clinical cause for concern as a consequence of this incident/outbreak	None.
Number of deaths as a consequence of this incident/outbreak	Nil
Was the infectious agent cited as a cause of death on a **death certificate* (**if yes, state which part of the certificate**)**	N/A
Are infection prevention and control measures as per National Infection Prevention and Control Manual (NIPCM) implemented? If not, state reason.	Yes
Has additional information regarding this Incident/outbreak i.e. leaflets been provided to patients/relatives. Provide details:	No

Additional Information:
Weak positive Cryptococcus isolated from plasma.
CSF *Cryptococcus* antigen negative.
Samples have been sent to Bristol Mycology reference Lab.

Section 4: Healthcare Infection Incident Assessment Tool (HIIAT) (link to tool)		
Severity of illness	Minor/Moderate/Major	Moderate
Impact on services	Minor/Moderate/Major	Minor
Risk of transmission	Minor/Moderate/Major	Minor
Public anxiety	Minor/Moderate/Major	Minor
HIIAT Assessment	Red Amber Green	Green
Section 5: Organisational Arrangements		
PAG/IMT meeting held	Yes - IMT	Date: [redacted].07.2020 Chair: Prof A Leanord
Next planned IMT	To be scheduled when further results are available	Date: TBC
Press statement (proactive press statements **must** be sent with HIIORT)	Proactive N	***Must** be sent prior to release*
	Release N	*Direct to SG comms within 48hrs*
	Holding N	*Direct to SG comms within 48hrs*
HPS support requested	Y	Date.....[redacted].07.2020.....
Other information: e.g. decisions from IMT		

Complete this section if:
Red: complete daily or as agreed between IMT and HPS (a minimum of weekly)
Amber: complete twice weekly or as agreed between IMT and HPS (a minimum of weekly)
Green: complete if HPS support required (a minimum of weekly)

Section 6: Update						
On this date:	[redacted].07.20					
Cumulative total of confirmed patient cases	0					
Cumulative total of probable patient cases	0					
Cumulative total of possible patient cases	1					
Cumulative total of staff cases	0					
Total number of symptomatic patients today	0					
Number of patients giving cause for concern	0					
Total number of deaths as a consequence of the incident since last HIIORT report	0					
Is the ward/services closed	No					
Is a service restricted	No					
HIIAT assessment	Green					

Organisation update certification information)	*Comments (including changes to any control measures, case definition or death)*
Date: [redacted].07.20	IMT held today 02.07.20 HIIAT Green Severity of illness – Moderate Impact on Services – Minor Risk of Transmission – Minor Public Anxiety – Minor <u>Situation</u> – [redacted] child. Excision of [redacted] January 2020. Has been receiving intensive chemotherapy. Recently competed [redacted] cycle. Admitted with [redacted]. Weak positive *Cryptococcus* result on 3 serum samples from lateral flow test using neat serum. Taken as part of semi routine screening following admission with pyrexia. CSF *Cryptococcus* antigen negative. <u>Hypothesis</u> – Environmental, either community or hospital. Latency infection. False Positive. <u>Actions undertaken</u> – Samples sent to Bristol Mycology reference Laboratory for further testing. Family informed of result by clinical staff. <u>Actions planned</u> – Plant rooms will be inspected by microbiologist. Wait on results from Mycology Reference Lab. Clinical team will provide an update for ward staff. No change to current antifungal prophylaxis regime. IMT will reconvene when results from Bristol are available. Next IMT - TBC

ONCE COMPLETED, EMAIL TO: [redacted]

SECTOR: CLYDE **REPORT PREPARED BY: Donna McAllister/Donna McConnell** **DATE: July / August 2020**

Any SPCs above the upper control limit at ward or site: NIL

Site	Ward	Sector	Specialty	Organism	Date Reported	Action / Update

Any SABs / severe cases of CDI meeting the criteria for Clinical Review:

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
IRH	K North	Clyde	Ortho	[redacted]	SAB recorded on part 1a of death certificate.	[redacted]/06/20	Y – QEUH Vascular	SSI – superficial	[redacted]
RAH	Ward 7	Clyde	RAD	[redacted]	CDI recorded on part 2 of death certificate.	[redacted]/07/20	Y – Ward 7 / Clyde	NA	[redacted]
IRH	J North	Clyde	Medical	[redacted]	HAI MSSA SAB	[redacted]/08/20	Y – J North/Clyde	PVC	[redacted]
IRH	HDU (J Centre)	Clyde	Critical Care	[redacted]	CDI – recorded on part 2 of death certificate.	[redacted]/08/20	Yes – HDU/Clyde	Na	[redacted]
RAH	ITU	Clyde	Critical Care	[redacted]	Severe CDI – Score of 2	[redacted]/08/20	No	Na	[redacted]
IRH	G North	Clyde	Medical	[redacted]	SAB - MSSA	[redacted]/08/20	Yes – G North/Clyde	CVC	[redacted]
RAH	HDU	Clyde	Critical Care	[redacted]	Severe CDI – Score of 2.	[redacted]/08/20	No	Na	[redacted]

Cont/…

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Any incidents / outbreaks requiring HIIAT assessment: 1

Site	Ward	Sector	Specialty	Organism / Incident	HIIAT Score	HIIAT Date	Action / Update
RAH	ITU	Clyde	Critical Care	Stenotrophomonas maltophilia	Green	03/07/20, 23/07/20 and 30/07/20	**6** cases of *Stenotrophomonas maltophilia* linked to ITU RAH since 19/05. 4 IMT held to date. Most recent IMT 30/07. Last +ve case 16/07. 3 isolates closely linked, 2 unique and 1 isolate discarded due to timeframe. Environmental – negative. Stenotrophomonas maltophilia isolated from water sampling from Staff Room wash hand basin and Relatives WC wash hand basin on 08/07 and x2 DSR water outlets on 29/08. Staff room wash hand basin - taps flushed, disinfected and replaced. Relatives WC wash hand basin taps flushed and disinfected. Repeat sampling of Staff Room wash hand basin and Relatives Room WC wash hand basin negative. Both sinks have now been returned to use. DSR water outlets to be flushed, disinfected and taps replaced and further water sampling requested. Typing Staff Room wash hand basin and Relatives Room WC wash hand basin differ from each other and patients. IMT closed on 30/07. HAIIT Green on all 4 IMT. Outstanding actions from IMT in progress.

Other Issues:

RAH ITU1 – *Pseudomonas aeruginosa* +ve results from sputum specimen obtained [redacted]/06 and 1 routine water sample 23/06. Both isolates have been sent for typing – results pending. Water safety action completed and IPCT have reviewed the unit and no issues identified. Patient has sadly died - *Pseudomonas aeruginosa* not documented on Death Certificate PAG completed. **Update** – Both samples sent for typing were different and not linked. Incident closed.
RAH NICU - *Pseudomonas aeruginosa* found in routine water sampling from tap in clinical wash hand basin in NICU. No +ve clinical specimens. **Update -** Repeat routine water sampling x2 CWHB now back in use. Routine water sampling continues. Incident closed.
RAH Orthopaedic Theatres – 4 SSI infections – 3 in April & 1 in May- All different organisms. No common denominators following review by IPCT / Clinical Team. Update - PAG completed. Incident closed.

Cont/…

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Other Issues (contd):

RAH Orthopaedic Theatres – 4 SSI infections – 3 in April & 1 in May- All different organisms. No common denominators following review by IPCT / Clinical Team. Update - PAG completed. Incident closed.
RAH ITU - *Stenotrophomonas maltophilia* - **6** cases of *Stenotrophomonas maltophilia* linked to ITU RAH since 19/05. 4 IMT held to date. Most recent IMT 30/07. Last +ve case 16/07. 3 isolates closely linked, 2 unique and 1 isolate discarded due to timeframe. Environmental samples – negative. *Stenotrophomonas maltophilia* isolated from water samples from Staff Room wash hand basin and Relatives WC wash hand basin on 08/07 and x2 DSR water outlets on 29/08. Typing Staff Room wash hand basin and Relatives Room WC wash hand basin differ from each other and patient isolates. Awaiting typing results from DSR outlets. All outlets flushed and disinfected. Taps in Staff Room and DSR where replaced. Negative water samples obtained / reported. All outlets now returned to normal use. IMT closed on 30/07. HAIIAT Green on all 4 IMT. 1 outstanding action from IMT remains – typing of DSR outlets.
RAH ITU - *Pseudomonas aeruginosa* found in routine water sampling from tap in wash hand basin staff toilet 07/08/20. 1 +ve sample from patient within unit at same time. Specimen was from an ETA and considered colonisation. +ve outlet cleaned, disinfected and tap changed by estates and re-sampled and negative. Patient stepped down from ITU and doing well. NFA.
RAH ITU - Water ingress from the ceiling in the lobby of SSR 5 in ITU in the RAH (negative pressure room) 14/08/20. Room taken out of use and repair undertaken. Assurance provided from estates that all issues rectified. Room now in use. NFA.
RAH NICU - *Pseudomonas aeruginosa* reported in routine water sampling from tap at CWHB in NICU 10/08/20. No +ve clinical specimens. Repeat routine water sampling negative on 2 occasions. CWHB has been returned to use. NFA.
RAH – Theatre 6 - Water ingress into the corridor outside Theatre 6 in RAH 14/08/20. Theatre taken out of use and repair undertaken. Assurance from estates that all issues rectified. Theatre has been returned to use. NFA.
RAH – AMU - Drain blockage resulting in 2 rooms being out of use within MAU 31/08/20. Remedial work undertaken and rooms now back in use. NFA.

SECTOR: West and HSCP **REPORT PREPARED BY: Alison Edwardson** **DATE: July / August 2020**

Any SPCs above the upper control limit at ward or site: NIL to report

Site	Ward	Sector	Specialty	Organism	Date Reported	Action / Update

Any SABs / severe cases of CDI meeting the criteria for Clinical Review:

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
BWoSCC	B4	West/HSCP	Oncology	[redacted]	Severe CDI	[redacted]/08/20	Yes – Ward [redacted] GRI	N/A	[redacted]

Any incidents / outbreaks requiring HIIAT assessment: NIL to report

Site	Ward	Sector	Specialty	Organism / Incident	HIIAT Score	HIIAT Date	Action / Update

Other Issues:

Ward 4B, Leverndale Hospital (Adult Mental Health, Short Stay) – Closed on 22/06/20 due to 1 confirmed case of COVID-19. All contacts were screened and tested negative for COVID-19. The ward was reopened on 3/7/20 following completion of a terminal clean.
GGH 22/7/20 Blocked waste pipe between upper ground floor (nuclear medicine) and first floor 1C (Ophthalmology)), resulting in fractured waste pipe and water leaking through ceiling into nuclear medicine and damage to ceiling tile in corridor outside interventional radiology (ground floor) and backflow of water though the drains into single rooms 21, 22, 23 in IC. Estates involved from onset. Nuclear Medicine closed to allow for replacement/ repair of pipe work and ceiling, wall and floor replacement damaged by the water leak. HAI-Scribe completed for work in Nuclear Medicine.
WoSCC B6 (Haemato-oncology) –week beginning 7/8/20 Pseudomonas aeruginosa isolated from blood culture. Water safety checklist undertaken, no issues identified.
WoSCC, B2 – week beginning 21/8/20 Sewage leak shower ensuite Room 7, room closed off and Estates aware. Ward has been closed to in-patients during COVID. 4 bedded dorm at other end of ward being used for staff screening. Repaired
WoSCC, B6 (Haemato – oncology) - week beginning 28/8/20 Single room 10 out of use, due to damaged flooring and water ingress to shower area of *en suite*.

SECTOR: South (Adults) **REPORT PREPARED BY: Calum MacLeod** **DATE: July / August 2020**

Any SPCs above the upper control limit at ward or site: NIL

Site	Ward	Sector	Specialty	Organism	Date Reported	Action / Update

Any SABs / severe cases of CDI meeting the criteria for Clinical Review:

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
QEUH	MHDU	South Glasgow	Critical Care	[redacted]	CDI Death – [redacted]/07/20 **Death Certificate** **Part 1a)** Sepsis with multi organ failure **1b)** Clostridium difficile infection **1c)** Antibiotic treatment for urinary tract infections **Part 2)** Type 2 diabetes mellitus	[redacted]/07/20	NO	N/A Patient admitted with pyrexia and abdominal pain. Stool sample positive for CDI on admission. PMH of panproctocolectomy and ileostomy in [redacted]. CT performed on [redacted]/07/20 showing widespread enteritis with worsening ascites and oedema. Patient was initially started on oral metronidazole but was struggling to tolerate this. Patient sadly died on [redacted]/07/20.	[redacted]
QEUH	Ward 55	South Glasgow	Care of the Elderly	[redacted]	SAB Death – [redacted]/07/2020 **Death Certificate** **Part 1a)** Congestive cardiac failure **1b)** Severe left ventricular systolic dysfunction **Part 2** Staphylococcus aureus bacteraemia Acute chronic kidney disease Frailty	[redacted]/06/20	YES – Ward [redacted], QEUH	Urinary catheter Source of bacteraemia Urosepsis. Patient has history of traumatic removal of catheter and haematuria. Catheter was inserted [redacted] and all the checks/criteria completed. CSU +ve staph [redacted]0620.	[redacted]

Cont/A50611329

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Any SABs / severe cases of CDI meeting the criteria for Clinical Review (contd):

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
QEUH	Ward 8D	South Glasgow	Gastro	[redacted]	SAB Death – [redacted]/07/20 **Death Certificate** **Part 1a)** Staphylococcus bacteraemia **Part 2** Chronic obstructive pulmonary disease, chronic left pulmonary effusion and colorectal carcinoma	[redacted]/06/20	NO	Respiratory Infection Patient admitted with sepsis and abdominal pain. CT detected caecal mass. Also noted progressive pleural effusion. Informed by medics that the source is considered chest.	[redacted]
QEUH	Ward 55	South Glasgow	Care of Elderly	[redacted]	SAB Death – [redacted]0720 **Death Certificate** **Part1a)** Staphylococcus aureus **Part 1b)** Hospital acquired pneumonia **Part 2** Acute on chronic kidney disease Congestive cardiac failure Atrial fibrillation	[redacted]/07/20	YES – Ward [redacted], QEUH	Respiratory Infection [redacted] patient admitted after [redacted], treated for electrolyte disturbance and fluid overload with high dose diuretics. CXR appearance Cardiac decompensation and suspicion of atelectasis/consolidation. Discussion with medic source of SAB HAP.	[redacted]

Cont/…

Page 3/5 (South Adults)

Any SABs / severe cases of CDI meeting the criteria for Clinical Review (contd):

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
QEUH	Medical HDU	South Glasgow	Critical Care	[redacted]	SAB Death – [redacted]/07/20 **Death Certificate** **Part1** Multiple cerebral infarctions secondary to staphylococcus aureus endocarditis **Part 2** Essential hypertension	[redacted]/07/20	NO	Unknown entry point. Presented with confusion, vomiting, fever and rigors, AKI and initially treated for urinary sepsis. Renal ultrasound did not demonstrate any abnormality Patient developed a drop in GCS. Stroke team reviewed and queried an IE with embolic sequelae. Suspected embolic plaque secondary to SAB.	[redacted]
QEUH	Ward 5D	South Glasgow	Medicine	[redacted]	SAB Death – [redacted]/07/20 **Death Certificate** **Part1** Staphylococcus Aureus Bacteraemia **Part 2** Heart Failure, Atrial Fibrillation	[redacted]/07/20	NO	Unknown Patient admitted generally unwell, frail and housebound. Discussed with Consultant, unable to identify source of SAB, several potential sources, back pain/ spinal compression /spinal # and small pressure sores over spine, patient too unwell to investigate further.	[redacted]

Cont/…

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Any SABs / severe cases of CDI meeting the criteria for Clinical Review (contd):

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
QEUH	5C	South Sector	Infectious Diseases	[redacted]	Severe CDI – [redacted]/08/20 Severity Score - 1	[redacted]/08/20	YES – Ward [redacted], QEUH	N/A CDiff toxin positive on [redacted]/08/20 Complex medical history and symptoms of diarrhoea for past 4 months with oral antibiotics in the community for previous c.diff. CDI score 1 but medical staff have agreed to treat as a severe case.	[redacted]
QEUH	8D	South Sector	Gastro	[redacted]	Severe CDI – [redacted]/08/20 Severity Score - 2	[redacted]/08/20	NO	N/A C.diff toxin positive on [redacted]/8/20. Admitted with increase stoma activity and previously C.diff toxin positive 18 months ago. Treated as severe case due to colonic dilation above 6cms and increased WCC	[redacted]

Any incidents / outbreaks requiring HIIAT assessment:

Site	Ward	Sector	Specialty	Organism / Incident	HIIAT Score	HIIAT Date	Action / Update
QEUH	Neuro Theatres	Regional	Spinal	Increase in Spinal SSI. 12 cases identified • May -3 • June – 6 • July -3 7 cases were staph aureus. Typed and all returned different spa types.	GREEN	25/08/20	Action plan ongoing. No further cases since last IMT and no cases for August.

Page 5/5 (South Adults)

Any incidents / outbreaks requiring HIIAT assessment (contd):

Site	Ward	Sector	Specialty	Organism / Incident	HIIAT Score	HIIAT Date	Action / Update
QEUH	Ward 4B	Regional	BMT	VRE in blood cultures	GREEN	29/07/20	2 VRE isolates from blood cultures 10 days apart and recorded as HAI's to Ward 4B. 1 further VRE isolate from a blood culture in August. All VRE blood cultures sent for typing – 2 returned different and further 1 unique to QEUH. Hand hygiene audit completed - scoring 100%

Other Issues:

Ward 61 - closed due to refurb. Unit was re-opened on 6th July
Water leak in Critical care Unit 7 - Estates work completed, terminal clean has been repeated due to high air sampling results. Repeats samples taken awaiting ICD review. Following repeat sampling and ICD review area can be used.
Water leak in bed space 16, HDU2 - w/b 27/07/20. Patients moved from area and estates have rectified issues and replaced ceiling tiles.
Water leak in bed space 49 HDU5 - w/b 27/07/20. Bed space not in use at present, estates have rectified issues.

SECTOR: North **REPORT PREPARED BY: Gillian Mills** **DATE: July / August 2020**

Any SPCs above the upper control limit at ward or site: 0

Site	Ward	Sector	Specialty	Organism	Date Reported	Action / Update
Nil						

Any SABs / severe cases of CDI meeting the criteria for Clinical Review:

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N – If YES Ward / Sector attributed to	Source if SAB	Datix
GRI	7/16	North	Medicine	[redacted]	Severe CDI	[redacted]/06/20	No	N/A	[redacted]
GRI	29	North	DME	[redacted]	CDI Death Part 1 (clinical case)	N/A Equivocal result [redacted]/06/2020: GDH positive, C difficile toxin NOT detected.	NA (clinical case)	N/A	[redacted]
GRI	32	North	DME	[redacted]	Severe CDI	[redacted]/07/20	No	N/A	[redacted]
GRI	7/16	North	Medicine	[redacted]	SAB	[redacted]/07/20	Yes – Ward [redacted], GRI, North	PICC	[redacted]
GRI	15/28	North	Medicine	[redacted]	SAB Death on part 1a of death certificate	[redacted]/07/20	No	Septic Arthritis	[redacted]
GRI	8	North	Medicine	[redacted]	Severe CDI – severity score 2.	[redacted]/07/20	Yes – [redacted], GRI	N/A	[redacted]
GRI	5	North	Medicine	[redacted]	SAB	[redacted]/08/20	Yes - Indeterminate Medicine	CVC	[redacted]
GRI	7/16	North	Medicine	[redacted]	Severe CDI	[redacted]/08/20	Yes – [redacted], GRI, North	N/A	[redacted]

Cont/…

Page 2/4 (North)

Any <u>incidents</u> / <u>outbreaks</u> requiring HIIAT assessment:

Site	Ward	Sector	Specialty	Organism / Incident	HIIAT Score	HIIAT Date	Action / Update
GRI	20/21	North	Medicine	*Clostridioides Difficile*	Green	09.07.20	Daily CDI trigger tool completed between 06/07/20 and 14/07/20. PAG completed 06/07/20. Terminal clean of ward completed 06/07/20. Twice daily cleaning of ward. IMTs held 07/07/20 and 09/07/20. Hand hygiene audit completed 09/07/20. AMT review completed 07/07/20. IPCAT completed 24/07/20 – 87% green. Education sessions carried out. Ribotype results – 2 patients were 015 and 1 patient was 020.
GRI	62	North	Orthopaedics	VRE	Green	18.08.20	PAG 18.08.20. 1 case of HAI VRE 04.06.20 2 cases of HAI VRE 06.08.20 and 14.08.20. Further case of HAI VRE 29.08.20. Crossover of patients 1 and 3 between 16.06.20 – 22.07.20. Crossover of patients 2 and 3 between 29.07.20 – 18.08.20. Terminal clean of ward carried out 18.08.20. Hand hygiene audit carried out 20.08.20 Hand hygiene education being carried out. Antimicrobial prescribing review completed. A walk round of the ward was carried out 12.08.20 with SCN - significant number of issues identified and SCN auctioning these. Typing being carried out on isolates that have been stored. Hypothesis – transmission via HCW hands and equipment.
PRM	NICU	W&C	Neonatology	*Staphylococcus epidermidis*	Green	24.08.20	PAG 24.08.20. 4 cases of *S. epidermidis*. 2 historical cases in July. 2 cases in August (32 days after last case in July). All isolates are different based on antibiograms. IPCAT 31.07.20 – 85%. IPCAT re-audit of 1 amber and 1 red section completed 25.08.20. Hand hygiene audit carried out 26.08.20. Hand hygiene education being carried out. Hypothesis – HCW hands and poor blood culture technique.

Page 3/4 (North)

Other Issues:

Ward 8, GRI – 2 PICC line associated SABs 8 days apart in June. IPC carried out 4 weekly CVC sweeps in July and provided CVC education.

GRI ward 8 - FOUR WEEKLY SUMMARY REPORT					
Week	Date of Audit	Total number of patients on ward	Total number of CVCs	Total number of CVCs with care plan in progress and fully completed	Compliance score (%)
Baseline	24.06.20	16	1	1	100%
1	07.07.20	15	3	1	33%
2	14.07.20	16	1	0	0%
3	21.07.20	16	0	0	N/A
4	30.07.20	16	2	2	100%

Summary Report	
Was improvement noted?	Improvement noted.
What interventions did clinical team carry out?	Support given to ward.
Further recommendations?	SAB education requested from SCN 30.07.20. Dates to be arranged.

Cont/…

Page 4/4 (North)

Other Issues (contd):

Ward 39, GRI – several water leaks due to heavy rain, pipe work re-directed and roof repairs carried out. Terminal clean of area carried out.
RDU, Vic ACH – corroded dialysis pipe leaked into empty (not in use) 4 bed bay in ward 3 and patient waiting room. Terminal clean carried out. Engie have instructed contractor to carry out repairs. HAI-scribe requested for sign off prior to repairs being carried out.
Theatre Store Room, GRI - Leak 23.08.20 from domestic water pump into store room between general and plastic theatres. Damaged stock destroyed. Terminal clean carried out and ceiling tiles replaced.

SECTOR: South Paediatrics **REPORT PREPARED BY: Gillian Bowskill / Angela Johnson** **DATE: July / August 2020**

Any SPCs above the upper control limit at ward or site: Nil

Site	Ward	Sector	Specialty	Organism	Date Reported	Action / Update

Any SABs / severe cases of CDI meeting the criteria for Clinical Review:

Site	Ward	Sector	Specialty	Patient Initials	SAB / severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward / Sector attributed to	Source if SAB	Datix
RHC	NICU	W & C	Paeds & Neonatology	[redacted]	SAB	[redacted]/20	Yes - NICU	PICC line	[redacted]

Any Incidents /Outbreaks requiring HIIAT assessment: None

Site	Ward	Sector	Specialty	Organism / Incident	HIIAT Score	HIIAT Date	Action / Update
RHC	Ward 6A	W & C	Paediatrics & Neonatology	*Cryptococcus* (antigen)	Green	[redacted]/20	IMT 02/07/20. HPS in attendance. HIIORT sent to HPS. Updated HIIORT sent to HPS 09/07/20. Weak positive Cryptococcus result isolated from plasma. CSF Cryptococcus antigen reported as negative. Samples sent to Bristol Mycology reference lab for further testing. In summary - CRAG lateral flow +ve NEAT serum. Pan fungal PCR negative. CSF no positive microbiology. It has been confirmed from the UK Mycology Reference lab that CRAG lateral flow for the CSF received was negative. Possibilities: 1. An early clinical infection that has been ameliorated with antifungal treatment. 2. A false positive result in a case with no clinical indicators of Cryptococcus infection. Plant rooms inspected by Microbiologist – no issues identified. No further action required at this time. Updated HIIORT sent to HPS 09/07/20 and IMT closed.

Page 2/3 (South Paediatrics)

RHC	NICU	W & C	Paediatrics & Neonatology	*Acinetobacter ursingii*	Green	[redacted]/07/20	PAG 09/07/20 – HIIAT Green. 1 [redacted] isolated *Acinetobacter ursingii* from a blood culture (HAI NICU). Ward currently has enhanced twice daily cleaning in place. IPCT will continue to observe.
RHC	SCBU	W & C	Paediatrics & Neonatology	*Enterobacter cloacae*	Green	[redacted]/07/20	PAG 14/07/20 - HIIAT Green 3 [redacted] on transfer to [redacted] isolated *Enterobacter cloacae* colonisations (HAI to RHC SCBU) within a 2 day period. Ward currently has enhanced twice daily enhanced cleaning in place. All staff made aware and IPCT will continue to observe.
RHC	NICU	W & C	Paediatrics & Neonatology	*Klebsiella oxytoca*	Green	[redacted]/07/20	PAG (27/7/20); HIIAT Green 1 baby in NICU isolated Klebsiella oxytoca from a blood culture (HAI to NICU). Baby had clinical risk factors for developing Gram-negative bacteraemia (NEC and GI surgical intervention). Ward currently has enhanced twice daily cleaning in place. IPCT will continue to observe.
RHC	NICU	W & C	Paeds & Neonatology	*Serratia marcescens*	Green	[redacted]/08/20	Patient has clinical risk factors for developing Gram-negative bacteraemia (GI surgical intervention). Condition today reported to be much improved. Isolate will be stored. PAG shared with Clinical Team. Medical Staff to inform parents of result. Ward currently has enhanced twice daily cleaning in place. HPV commenced [redacted].09.20 Baby will be nursed with TBPs in place. IPCT continue with surveillance monitoring.

Page 3/3 (South Paediatrics)

Other Issues:

PICU: HAI Aspergillus species from mediastinal tissue specimen [redacted]/08/20 Investigations of possible source in progress. Child has since died – Aspergillus not a factor in child's death.

SECTOR: South Glasgow, Paediatrics REPORT PREPARED BY GILLIAN BOWSKILL DATE: 03/07/2020

Any SPCs above the upper control limit at ward or site: 0

Site	Ward	Sector	Speciality	Organism	Date Reported	Action / Update

Any SABs / severe cases of CDI meeting the criteria for Clinical Review: 1

Site	Ward	Sector	Speciality	Patient Initials	SAB /severe CDI CDI on part 1 or 2 D/C (please state which)	Specimen Date	HAI: Y/N - If YES Ward/ Sector attributed to	Source of SAB	Datix
RHC	2C	W&C Paeds	Paediatrics	[redacted]	SAB	[redacted].20	Y – Ward [redacted]	Femoral line	[redacted]

Any Incidents/Outbreaks requiring HIIAT Assessment: 1

Site	Ward	Sector	Speciality	Organism/ Incident	HIIAT Score	HIIAT Date	Action / Update
RHC/ QEUH	6A	W&C Paeds	Paediatric Haem Onc	*Cryptococcus*	Green	[redacted].20	IMT 02.07.20 HPS in attendance. HIIORT sent to HPS. Weak positive *Cryptococcus* result isolated form plasma. CSF *Cryptrococcus* antigen reported as negative. Samples have been sent to Bristol Mycology reference lab for further testing. Family informed of result by Clinical Staff. Clinical team will provide an update for Ward Staff. Plant rooms will be inspected by microbiologist. No change to current antifungal prophylaxis regime. IMT will reconvene when results from Bristol are available.
Other Issues:							

From: Devine, Sandra [redacted]
Sent: 05 November 2021 13:37
To: Gibson, Brenda; Berry, John; Mcdaid, April; McColgan, Melanie; Marek, Aleksandra; [redacted]; Ramsay, Thomas; Groom, Susan; Kalsoom Mohammed; Paterson, Nicolle; Halsey, Christina; Patricia Coyne; Riddell, Catriona; Friel, Patricia; Riddell, Mark; Bowskill, Gillian; Pritchard, Lynn; Jamie Redfern; Bal, Abhijit; Bustillo, Sandra; Gardner, Morag; Loudon, Lorna; Clark, Andrew
Cc: Joannidis, Pamela
Subject: RE: leaks on level 6 - major incident meeting needed

Hi Brenda

I very thoughtful about the ongoing situation we all find ourselves in and can only imagine how difficult it must be at the moment so I'm sorry to have added to this burden. We have ensured that both Scottish Government and ARHAI have been informed of this incident and we will continue to monitor any patients who have been in any way impacted. E mail is not a perfect way to undertake a HIIAT assessment so please accept my apologies for this, however, the majority of those who responded have agreed with the assessment. I have checked with our colleagues in Communications today and there does not seem to have been a negative response from families although we continue to monitor this. With all that in mind can I suggest that the public anxiety is scored as moderate rather than major as following the patient briefing issued in the unit and on the Ward 6A facebook page there does not seem to be an indication that this is causing major public anxiety.

I'm happy to discuss if you would find it helpful.

Kind regards
Sandra

Sandra Devine
Acting Infection Control Manager
NHS Greater Glasgow & Clyde
[redacted]

If you require an urgent response can I please ask you to telephone me as I am often in meetings and away from the office and unable to check voicemail until the end of the day. Thank you

From: Gibson, Brenda
Sent: 04 November 2021 10:35
To: Devine, Sandra [redacted]; Berry, John [redacted]; Mcdaid, April [redacted]; McColgan, Melanie [redacted]; Marek, Aleksandra [redacted]; [redacted]; Ramsay, Thomas [redacted]; Groom, Susan [redacted]; Kalsoon, Mohammed [redacted]; Paterson, Nicolle [redacted]; Halsey, Christina [redacted]; Coyne, Patricia [redacted]; Riddell, Catriona [redacted]; Friel, Patricia [redacted]; Riddell, Mark [redacted]; Bowskill, Gillian [redacted]; Pritchard, Lynn [redacted]; Redfern, Jamie [redacted]; Bal, Abhijit [redacted]; Bustillo, Sandra [redacted]; Gardner, Morag [redacted]; Loudon, Lorna [redacted]; Clark, Andrew [redacted]
Subject: Re: leaks on level 6 - major incident meeting needed

I am sorry but I don't agree with the scoring . For families any deficiency in the building is unacceptable and major . [redacted]. Brenda

Get Outlook for iOS

From: Devine, Sandra [redacted]
Sent: 04 September 2020 14:29
To: 'Angela Wallace (NHS Forth Valley)'
Subject: FW: Death Certification

Importance: High

FYI – apologies Neil not Mark
Sandra

Sandra Devine
Acting Infection Control Manager
NHS Greater Glasgow & Clyde
[redacted]

If you require an urgent response can I please ask you to telephone me as I am often in meetings and away from the office and unable to check voicemail until the end of the day. Thank you

---

From: Bowskill, Gillian
Sent: 04 September 2020 14:26
To: Devine, Sandra [redacted]; Leanord, Alistair [redacted]
Subject: FW: Death Certification
Importance: High

FYI

From: Spenceley, Neil
Sent: 04 September 2020 13:54
To: Bowskill, Gillian
Subject: Death Certification

Hi Gillian,

I still haven't managed to speak to the Fiscal as all the numbers issued are either invalid or end up with a mobile voice-mail. I've left a message on the latter and e-mailed them.

I have however spoken to a very helpful advisor from the Death Certification Review Service and we talked through the process and the best way to document [redacted] death.

Provisionally it will be as follows:

1a: Haemorrhage
1b: ECMO
1c: Complex Congenital Heart Disease (Operation date)

2: Renal Failure

On balance, talking it through and having discussed it with Ed Peng who has [redacted] on a number of occasions, I don't have enough of a concern that the Aspergillus contributed to [redacted] death in any way so to that end it doesn't need to be documented.

I'm now off until Monday so I'll pick it up again then. I will of course mention all of the above to the Fiscal with my reasoning so things may change if they decide a different course of action. I'll let the parents know about the delay.

Thanks,

Neil

[redacted]

[redacted] was born at term [redacted] Discharged home and admitted to PICU from [redacted] following [redacted]. Diagnosis of Type 1 truncus with interrupted aortic arch. Repair carried out [redacted].08.20, difficult post op period with high ventilation required. Cardiac arrest requiring E CPR and ECMO cannulation [redacted].08.20. Further ECHO showed clot on conduit valve and dehiscence of VSD patch [redacted] was taken back to theatre for replacement and repair. Following this decision made to washout chest and reduce ECMO flows. During the time of the washout the clot was removed and the shunt which housed the arterial cannula dislodged from the aorta which led to a catastrophic bleed. Decision made for reorientation of care and [redacted] sadly passed away [redacted]. Aspergillus isolated from chest wound (did not appear infected) [redacted].08.20 and [redacted].08.20.

Email from Dr Spenceley (PICU) 04.09.20:

Unable to reach fiscal, I have however spoken to a very helpful advisor from the Death Certification Review Service and we talked through the process and the best way to document [redacted]s death. Provisionally it will be as follows:

1a: Hemorrhage, 1b: ECMO, 1c: Complex Congenital Heart Disease, 2: Renal Failure

On balance, talking it through and having discussed it with Ed Peng (cardiac) who has [redacted] on a number of occasions, I don't have enough of a concern that the Aspergillus contributed to [redacted] death in any way so to that end it doesn't need to be documented. I will of course mention all of the above to the Fiscal with my reasoning so things may change if they decide a different course of action. I'll let the parents know about the delay.

Further communication form Dr Spenceley 04.09.20:

The Fiscal has no concerns. Death Certificate issued as previously noted.

Patient movements

Date/Ward	Room	Room type
[redacted].08.20 – [redacted].08.20/ [redacted] PICU	[redacted]	4 bed bay
[redacted].08.20 – [redacted].09.20/ [redacted] PICU	[redacted]	4 bed bay

NHS Greater Glasgow and Clyde	**NHS Greater Glasgow & Clyde** **Infection Prevention and Control Team**
Purpose:	Problem Assessment Group (PAG)
From:	South Glasgow Infection Prevention and Control Team
To:	Dr Alison Balfour, Infection Control Doctor Dr Kalliopi Valyraki, Infection Control Doctor Sandra Devine, Infection Control Manager Pamela Joannidis, Acting Associate Nurse Director Infection Prevention & Control Kate Hamilton, nurse Consultant IPC Lynn Pritchard, Lead Infection Prevention & Control Nurse
Date:	24.04.20
Subject / Situation:	2 HAI MRSA within Critical Care unit 4 (ITU2 Covid hub)
Background:	IPCT notified of 2 patients within Critical Care Unit 4 (ITU2 Covid hub) who isolated MRSA. On review 2 patients had MRSA isolated from respiratory tract samples. Both patients had been nursed in Critical Care Unit 4 and crossed over for a period of 25 days. Details of the patients below [redacted].03.20 – Admitted to [redacted] (covid hub) with symptoms and positive sample for COVID19. Transferred to [redacted] covid hub) that same day due to O2 requirements. [redacted].03.20 – Admitted to [redacted] covid hub) [redacted] with worsening covid symptoms [redacted].03.20 – CVC & ET Tube inserted. Routine MRSA screen negative [redacted].04.20 – Tracheal Aspirate positive for MRSA Lab No: 5655322 [redacted].04.20 – Patient died. Death Certificate – unable to view online due to error but MRSA has not been cited as confirmed by Lead Nurse Iain Thomson. [redacted].03.20 – Admitted to [redacted] (covid hub) with symptoms and positive sample for COVID19. Transferred to [redacted] covid hub) [redacted] with to worsening symptoms. [redacted].03.20 – CVC & ET Tube inserted [redacted].04.20 – Routine MRSA screen negative [redacted].04.20 – Sputum sample positive for MRSA Lab No. 5655255 Patient remains in [redacted]
Discussed with / Communications:	Discussed with Dr Valyraki on [redacted].04.20. Both samples have sent for typing and results are still awaited. Unfortunately unable to discuss with the clinical team directly due to

	the COVID outbreak and the ward affected being a COVID cohort unit. Both patients were admitted with COVID symptoms and were very unwell requiring level 3 ventilation.
Recommendation / Options:	Unable to carry out hand hygiene audit/IPCAT due to current ward use. Review any previous audits/practice issues in relation to unit. Await typing results when available. Continue surveillance. IPCNs will meet with Lead Nurse for the unit to discuss practice and PPE use in the area.
HIIAT	**Green** Severity of illness – minor Impact on services – minor Risk of transmission – moderate Public anxiety - minor
Members:	Lead ICD Prof. Alistair Leanord SIPCN Katrina Black IPCN Fiona Gallagher Lead Nurse Iain Thomson GM Ann Traquir Smith

NHS Greater Glasgow and Clyde	**NHS Greater Glasgow & Clyde** **Infection Prevention and Control Team**
Purpose:	Problem Assessment Group (PAG)
From:	Infection Prevention and Control Team
To:	IPCT SMT
Date:	13.05.20
Subject / Situation:	2 HAI Staph Capitis isolates within a 2 week period NICU RHC
Background:	**Patient 1- Baby** [redacted] D.O.A – [redacted].05.20 NICU Room [redacted] [redacted]**.05.20 –Blood culture Staph Capitis.** Combined SAB and staph Capitis. On routine surveillance of SAB medical staff felt that culture was a contaminant although they had commenced antibiotic therapy. **Patient 2 – Baby** [redacted] D.O.A - [redacted].02.20 – [redacted].02.20 NICU [redacted], [redacted].05.20 SCBU, [redacted].05.20 NICU [redacted].05.20 NICU [redacted]. [redacted]**.05.20 - Blood culture Staph Capitis.** **Timeline** A timeline shows that there are no bed space connections between the 2 cases. Discussed with Dr Valyraki. Case 1 maybe a possible contaminant. Case 2 may be an HAI for SCBU (by 2 hours). Observe at the moment and await antibiograms.
Recommendation / Options:	Discussed with Dr Valyraki. Antibiograms for both cases not available as yet. These will be reviewed when available. Update 05/06/20: Antibiograms are different for the two cases. Last SICPs audit 22.04.20 - 98%. Ward currently has enhanced twice daily cleaning in place at the moment.

HIIAT	HIIAT – Green • Severity of illness – minor • Impact on service - minor • Risk of transmission- minor • Public anxiety- minor
IPCT Members: **Discussed with:**	Dr P Valyraki – Infection Control Doctor G Bowskill – LIPCN

Public Health Scotland

Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams

Scottish Health Protection Network

Scottish Guidance
No 12.1 interim update (2020)

Health Protection Scotland

SHPN

The Scottish Government

A50611329

Document Amendment Log

Version No.	Date	Page No.	Amendment Summary
Interim update (2020)	July 2020	-	Interim update includes updated legislation for the COVID-19 outbreak plus updating of terminology with reference to HPS and PHS. • Changes throughout Annex A and Annex B (paras 4, 5, 6, 10, 14, 28, 21)

Guidance Owner: This guidance is owned by the Scottish Government and published under the auspices of the Scottish Health Protection Network.

The Scottish Health Protection Network (SHPN) is an obligate (jointly owned) network of existing professionals, organisations and groups in the health protection community across Scotland. The aims of the network are:

- To ensure Scotland has a Health Protection service of the highest quality and effectiveness that is able to respond to short term pressures and to long term challenges.
- To oversee the co-ordination of Scotland's health protection services under a network that promotes joint ownership and equitable access to a sustainable and consistent service.
- To minimise the risk and impact of communicable diseases and other (non-communicable) hazards on the population of Scotland and to derive long term public health benefits (outcomes) through the concerted efforts of health protection practitioners across Scotland.

In line with the above, SHPN supports the development, appraisal and adaptation of health protection guidance, seeking excellence in health protection practice.

Health Protection Scotland

Health Protection Scotland is part of Public Health Scotland, a special health board of National Health Service in Scotland. It provides the national level service for Health Protection dedicated to the protection of the public's health in Scotland.

Public Health Scotland

Public Health Scotland is Scotland's lead national agency for improving and protecting the health and wellbeing of all of Scotland's people. We are building on the firm foundations and the proud legacies of Health Protection Scotland, the Information Services Division and NHS Health Scotland. Our vision is of a Scotland where everybody thrives. Our focus is on increasing health life expectancy and reducing premature mortality. We use data, intelligence and a place based approach to lead and deliver Scotland's public health priorities. We provide advice and support to government and local authorities in a professionally independent manner.

Reference this document as

Scottish Government. Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams Scottish Health Protection Network Scottish Guidance 12.1 interim update (2020). Health Protection Scotland/Public Health Scotland, 2020.

Published by Health Protection Scotland/Public Health Scotland

Meridian Court, 5 Cadogan Street, Glasgow, G2 6QE.

First published June 2017, revised in July 2020.

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Glasgow G2 6QE
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Email: **nss.hpsenquiries@nhs.net**

Professionals involved in the implementation of recommendations proposed in this document are expected to take them fully into account when exercising their professional judgment. The document does not, however, override the individual responsibility of professionals to make decisions appropriate to the circumstances of the individual cases, in consultation with partner agencies and stakeholders. Professionals are also reminded that it is their responsibility to interpret and implement these recommendations in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this document should be interpreted in a way which would be inconsistent with compliance with those duties.

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Acknowledgements

Health Protection Scotland (HPS)/Public Health Scotland (PHS) wish to express their appreciation to all whose efforts made this guidance possible. In particular, to the members of the Guidance Development Group and their constituencies, PHS Graphics, stakeholders and external reviewers, who contributed and reviewed the content of this guidance.

Comments on the published guidance

Comments on this guidance should be sent to the SHPN Guidance Group by emailing **phs.shpn-pmt-submissions@nhs.net**.

Purpose Statement and Scope

The purpose of this guidance document is to provide support to the NHS boards in preparing for or in response to public health incidents. It is intended to be strategic but not prescriptive and should allow for flexibility so that NHS boards can respond appropriately where necessary.

The main body of this guidance document has also been written purposely generic so that it could be applied to any public health or environmental health incident or hazard. More specific information is detailed in the annexes.

For guidance on the management of all Healthcare Infection Incidents and Outbreaks please refer to **Annex C** and Chapter 3 of the National Infection Prevention and Control Manual (NIPCM): **http://www.nipcm.hps.scot.nhs.uk/**

Abbreviations

APHA	Animal and Plant Health Agency
BCP	Business Continuity Plan
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosives
CJD	Creutzfeldt-Jakob Disease
COBR	Cabinet Office Briefing Room
CPD	Continuous Professional Development
CPH(M)	Consultant in Public Health (Medicine)
CMO	Chief Medical Officer
COPFS	Crown Office and Procurator Fiscal Service
CRCE	Centre for Radiation, Chemical and Environmental Hazards
DIM	Detection Identification and Monitoring
DPH	Director of Public Health
DWQR	Drinking Water Quality Regulator
ECDC	European Centre for Disease Prevention and Control
EHO	Environmental Health Officer
EWRS	Early Warning Response System
FAI	Fatal Accident Inquiry
FSS	Food Standards Scotland
GP	General Practitioner
HAI	Healthcare Associated Infection
HIIORT	Healthcare Infection Incident and Outbreak Reporting Template
HIV	Human Immunodeficiency Virus
HIIAT	Healthcare Infection Incident Assessment Tool
HPS	Health Protection Scotland
HPT	Health Protection Team
HRU	Health Resilience Unit
HSE	Health and Safety Executive
HSWA	Health and Safety at Work Act 1974
ICD	Infection Control Doctor
IEM	Integrated Emergency Management
IHR	International Health Regulations
IMT	Incident Management Team
IPCT	Infection Prevention and Control Team
LA(s)	Local Authority
LDCC	Local Disease Control Centre

LRP	Local Resilience Partnership
MIP	Major Incident Plan
MOU	Memorandum of Understanding
NFP	National Focal Point
NHS	National Health Service
NMC	Nursing and Midwifery Council
NSS	National Services Scotland
PSoS	Police Service of Scotland (legal term, also referred to as Police Scotland)
PAG	Problem Assessment Group
PHE	Public Health England
PHEIC	Public Health Emergency of International Concern
PHI	Public Health and Intelligence (business unit of NSS which includes HPS)
PHS	Public Health Scotland
PII	Personal Identifiable Information
RAG	Recovery Advisory Group
RRP	Regional Resilience Partnership
SARS	Severe Acute Respiratory Syndrome
SAS	Scottish Ambulance Service
SBAR	Situation, Background, Assessment and Recommendation
ScoRDS	Scottish Resilience Development Service
SEPA	Scottish Environment Protection Agency
SFRS	Scottish Fire and Rescue Service
SG	Scottish Government
SGHSCD	Scottish Government Health and Social Care Directorates
SGORR	Scottish Government Resilience Room
SHPIR	Scottish Health Protection Information Resource
SHPN	Scottish Health Protection Network (previously HPN)
SMO	Senior Medical Officer
SORT	Special Operations Response Team
STAC	Scientific and Technical Advice Cell
TB	Tuberculosis
UK	United Kingdom
WHO	World Health Organization
XDR-TB	Extensively Drug-resistant Tuberculosis

Foreword

This 2020 revision of the MPHI Guidance has been produced as a rapid update to bring the 2017 edition in line with organisational changes since 2017 and is therefore labelled an 'interim' revision.

The rapid update has been required due to the 2020 pandemic outbreak of COVID-19 infection. Where appropriate, specific information relating to the management of the COVID-19 pandemic has therefore been added to relevant sections (e.g. new legislation). Due to time constraints however, this version has not followed the full standard SHPN guidance revision process. It does not therefore incorporate a review of relevant new scientific evidence. The technical and professional advice in the 2020 interim update therefore remains the same as before. A full scale SHPN guidance review will be carried out when time and circumstances permit in future.

The main organisational change since 2017 relates to Health Protection Scotland, the successor organisation to a series of national health protection organisations in Scotland: initially founded as the Communicable Diseases (Scotland) Unit (CD(S)U) in 1969, then renamed the Scottish Centre for Infection and Environmental Health (SCIEH) and finally re-established as Health Protection Scotland (HPS), a part of NHS National Services Scotland (NSS). On 1 April 2020, HPS was transferred to the new national organisation for public health in Scotland; Public Health Scotland (PHS). HPS now operates as the national level health protection organisation in Scotland, within Public Health Scotland.

Where HPS was used as an abbreviation for Health Protection Scotland in the 2017 edition, HPS/PHS is now used in this version to denote the transfer of HPS to PHS. While PHS becomes fully established and until the eventual migration of the HPS website and all HPS publications to PHS is completed, the name HPS, as a long identified and recognised brand, will continue to be used on external publications and communications of the Health Protection Service of PHS.

1. Introduction

1. When individuals find themselves in situations that may cause them harm they may be able to take action to protect themselves. However, circumstances can arise when the health of the population may be at risk because groups of individuals are exposed, or at risk of being exposed, to infectious disease, high levels of a hazardous substance or adverse environmental conditions. These situations are public health incidents and NHS boards and HPS must take action to protect public health.

2. This document provides generic guidance for the NHS in preparing for, and managing public health incidents in collaboration with partners, especially the local authorities (LAs). It is not intended to be prescriptive and should allow for flexibility so that NHS boards can respond appropriately where necessary.

3. The vast majority of public health incidents do not require an escalated response. However, if an incident escalates and it is deemed appropriate, a co-ordinated response through Resilience Partnerships (RP) may ensue. This response should be based on the guidance provided in '**Preparing Scotland**' which reflects current legislation with regards to the Civil Contingencies Act 2004 (the Act) and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Regulations 2005 (the Regulations). As amended in The Civil Contingencies Act 2004 (Contingency Planning)(Scotland) Amendment Regulations 2013.

4. NHS boards are accountable to the Scottish Government Health and Social Care Directorates (SGHSCD) for protecting and improving the health of people living within their geographic areas. NHS boards act to protect human health during incidents within the context of shared responsibility for improving health with LAs and within the multi-agency emergency planning structures. Territorial NHS boards, the Scottish Ambulance Service (SAS) and LAs are Category 1 responders under the Civil Contingencies Act 2004 and the Civil Contingencies Act (Contingency Planning) (Scotland) Amendment Regulations 2013. Health Protection Scotland (HPS) is part of NHS National Services Scotland (NSS) which is the common name for the Common Services Agency for the Scottish Health Service and designated a Category 2 responder. HPS role is to coordinate national health protection activity. Further detail is provided at **Annex B, paragraph 14-16**. NHS boards are encouraged to use the Integrated Emergency Management (IEM) cycle, working together with multi agency partners via Regional and Local Resilience Partnerships.

5. The Public Health (Scotland) Act 2008 provides clarity over the roles and responsibilities of NHS boards and LAs and provides extensive powers to protect public health. Broadly, NHS boards are responsible for people, and LAs are responsible for premises. NHS boards and LAs have a duty to co-operate in exercising their functions under the Act, and to plan together to protect public health in their area. This includes the production of a Joint Health Protection Plan every two years.

2. Background

2.1 Versions and updates

6. The first version of this guidance 'Managing incidents presenting actual or potential risk to the Public Health: Guidance on roles and responsibilities of NHS led Incident Control Teams' was published in 2003 and was revised in 2011 and 2017.

7. This 2020 interim update is not a full revision of the guidance but brings the document up to date in terms of organisation titles and other non-technical issues. The professional guidance content of the document remains largely unchanged since the 2017 updated version.

N.B.: This update was completed in July 2020 at the time of the COVID-19 epidemic. Additional legislation relevant to this outbreak is listed in **Annex A**.

8. The 2017 revision took into account changes in legislation including:

- Civil Contingencies Act 2004 and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Amendment Regulations 2013;
- International Health Regulations 2005 (IHR);
- Establishment of the European Centre for Disease Prevention and Control (ECDC) in 2005 and public health duties placed on member states through EC Directives including notification of outbreaks likely to cross borders;
- Establishment of Health Protection Scotland (HPS) in 2005;
- Public Health (Scotland) Act 2008;
- Health and Social Care Act 2012 and the establishment of Public Health England with responsibilities related to Scotland especially on chemicals, poisons, and radiation.
- Public Bodies (Joint Working) (Scotland) Act 2014

N.B. See **Annex A** for new legislation relating to the pandemic of COVID-19 infection, added in the 2020 interim revision.

9. Significant incidents and major planned exercise events in Scotland since 2012 included:

- Outbreak of Legionnaires disease in Lothian in 2012;
- Public health incidents planning for Olympics, London, 2012 and Commonwealth Games, Glasgow, 2014;
- Planning and management of the response to Ebola 2013-2015;
- Outbreak of botulism in Scotland in people who inject drugs (PWID), Scotland, 2014-2015;
- Exercise Silver Swan, 2015.

10. To inform the development of the 2017 guidance version, a review of evidence from the above events was undertaken in collaboration with the Scottish Health Protection Network (SHPN).

11. For the 2020 interim update (version 12.1), due to time and resource constraints, no updated review of evidence was carried out and consequently there have been no changes to the technical content or professional advice.

12. This guidance is owned by the Scottish Government but is overseen, coordinated and maintained by SHPN and published by Health Protection Scotland (HPS)/Public Health Scotland (PHS).

2.2 Aim of the Guidance

13. This guidance document aims to provide information that NHS boards and LAs can refer to when preparing for or in response to public health or environmental health events or incidents. It is not intended to be prescriptive and does not replace risk assessment and professional judgement.

14. From this, local and integrated public health incident response plans and procedures should be drawn up under the general direction of the NHS board in close collaboration with Health and Social Care Partnerships and other partners, where appropriate. These should include consideration of topics such as workforce planning, administrative support, capacity and mutual aid.

15. The main body of this guidance document has been written purposely generic so that it could be applied to any incident. More specific information is detailed in the annexes.

16. This document also outlines the roles and responsibilities of Incident Management Teams (IMTs). It covers both planning and response based on a set of key principles and key functions. The guidance does not replicate that found elsewhere but sets out a hierarchy of existing guidance. It also illustrates how the response to an incident will change depending on the level and scale of that incident. It covers single and multi-board incidents and incidents where a national response is required. **Further detail on statutory responsibilities and roles and responsibilities of the various agencies that lead and/or contribute to managing public health incidents, where appropriate, can be found at Annex A and Annex B respectively.**

3. Definitions

3.1 Hazards and Exposures

17. The broad categories of agents which endanger health (hazards) and how we come into contact with them (exposures) are presented below with examples:

Hazards:

- Biological: infectious agents (e.g. bacteria, viruses, parasites, fungi), allergens (e.g. pollen), biological warfare agents;
- Chemical: natural or man-made (e.g. industrial, domestic, chemical warfare agents);
- Physical: radiation - ionising (e.g. radioactive); non-ionising (e.g. UV); emissions from natural sources (e.g. radon); or man-made (e.g. deliberate release);
- Physical: natural particulates and man-made pollution, extreme weather events (e.g. floods, heavy snow) and natural disasters (e.g. volcanoes, tsunamis), forest fire combustion products, hydrocarbons.

Exposures and pathways:

- Person-to-person (via direct contact with individual or indirectly from an individual's immediate care environment (including equipment);
- Food;
- Water;
- Air;
- Animal (including vectors, e.g. insects);
- Environmental.

3.2 Incidents

18. For simplicity throughout this framework, the terms incident and Incident Management Team (IMT) are used as generic terms to cover both incidents and outbreaks.

19. A **public health incident** may arise in the following situations:

- a single case of a serious illness with major public health implications (e.g. botulism, viral haemorrhagic fever, XDR-TB) where action is necessary to investigate and prevent ongoing exposure to the hazardous agent;
- two or more linked cases that could indicate the possibility that they may both be caused by the same known or unknown agent or exposure i.e. an outbreak;
- higher than expected number of cases or geographic clustering of a serious pathogen;
- a high likelihood of a population being exposed to a hazard (e.g. a chemical or infectious agent) at levels sufficient to cause illness, even though no cases have yet occurred (e.g. contamination of the drinking water supply).

20. **The Public Health (Scotland) Act 2008** provides a legal definition of a public health incident that can be summarised as follows:

- if a person has an infectious disease or there are reasonable grounds to suspect that a person has such a disease; or
- a person has been exposed to an organism that causes an infectious disease or there are reasonable grounds to suspect that a person has been exposed; or
- a person is contaminated or there are reasonable grounds to suspect that a person is contaminated; or
- a person has been exposed to a contaminant or there are reasonable grounds to suspect that a person has been exposed; or
- any premises or anything in or on premises is infected, infested or contaminated, or there are reasonable grounds to suspect it; **AND**
- there are reasonable grounds to suspect that the circumstance is likely to give rise to a significant risk to public health.

21. An **Incident Management Team (IMT)** is defined as a multi-disciplinary, multi-agency group with responsibility for investigating and managing the incident.

3.3 Emergencies and Major Incidents

22. The Civil Contingencies Act 2004 defines an **emergency** as an event or a situation which threatens serious damage to human welfare in a place in the UK, the environment of a place in the UK, or war or terrorism which threatens serious damage to the security of the UK. The definition is concerned with consequences rather than the cause or source.

23. Major incident is a widely accepted term used to describe any emergency that requires the implementation of special arrangements by one or more of the emergency services, the NHS or the LA. Major incidents are events that may severely disrupt health and social care and other functions (power, water etc) and may exceed even collective capability within the NHS or LA. The response to these events will be co-ordinated through the RRP / LRPs, Scottish and UK arrangements as described in '**Preparing Scotland**' (see **Annex D**), and should be led by police or other agency as appropriate.

4. Tiered Response and Associated Incidents

24. This section describes the level of response required depending on the scale of the incident and the threat to the public health. However, the need to escalate the response may also be influenced by the capacity of the NHS board, LA and partners to respond. The classification of public health incidents and suggested response is outlined in **Table 1**.

25. Where an incident is being led by one NHS board or where two or more NHS boards are involved but with no major disruption of services, **this** guidance is to be used supplemented with any issue-specific guidance. Links to sources of guidance are available in **Annex D**.

26. Where an incident is Scotland or UK wide, with some but no major disruption of services, HPS/PHS will coordinate the incident in Scotland following the principles set out in this guidance.

27. When a Major Incident has been declared (an incident with major disruption of services and/or either affecting Scotland or UK wide), NHS boards, HPS/PHS and the Scottish Government will be working to the local plans based on the principles set out in '**Preparing Scotland**'. Preparing Scotland is the Scottish Government's guidance on responding to emergencies and brings together the guidance on implementation of the Civil Contingency Regulations, good practice and the integration of national and local planning for emergencies. A suite of guidance is available within '**Preparing Scotland**' including specific guidance to be followed by NHS boards, LAs and other agencies on the role of Scientific and Technical Advice Cells (STACs).

28. An incident that takes place in a single NHS board or LA might also escalate sufficiently to necessitate declaration of a Major Incident and the consequent need to invoke the NHS Board Major Incident Plan and/or the RRP / LRP plans including arrangements for a STAC.

29. In addition to '**Preparing Scotland**', the SGHSCD has published NHS Scotland Resilience ' Preparing for Emergencies' - Guidance for Health Boards. This guidance is designed to help NHS boards across Scotland be prepared when problems arise. The document also outlines specific types of incidents and sets out requirements for Boards e.g. chemical, burns and communicable diseases.

30. Further detailed explanation of roles and responsibilities appears in **Annex B** and this includes a full explanation of how NHS board, LA and other agency roles will change as an incident escalates.

31. **Table 1** below provides guidance on the suggested level of response to an incident depending on the threat to the public health, with detail provided in subsequent sections for illustration. It should be noted that Table 1 is intended as a guide only and the response taken may vary depending on the individual circumstances and risk assessment carried out by the IMT managing the incident.

Table 1: Classification of public health incidents and suggested level of response.

Level	Actual or potential impact of incident	Response - Management	Response - Resources	Response - Briefing during incident	Post-incident Reporting
0	**Initial identification of potential incident** - significance in public health terms not clear	NHS board led Problem Assessment Group (PAG)	Local HP team and LA staff	Consider HPS/PHS Consider SGHSCD according to protocol[1] HIIAT assessment required in a healthcare infection incident[2]	Consider hot debrief template if any significant learning identified[3]
1	**Limited local impac**t - no significant risks to public health beyond the immediate group/setting affected in a single NHS board area	NHS board led IMT	Local NHS Board and LA staff as required Support from HPS/PHS and other agencies as required	HPS/PHS Consider HPS/PHS Alert[4] DPH and senior managers in NHS board and LA as appropriate HIIAT assessment required in a healthcare infection incident[2] SGHSCD according to protocol[1] Consider briefing LRP if appropriate	Hot debrief template[3] SBAR[5] to HPS/PHS and NHS board/LA

Level	Actual or potential impact of incident	Response - Management	Response - Resources	Response - Briefing during incident	Post-incident Reporting
2	**Significant local impact** - significant risk to public health beyond group/ setting affected mainly in single NHS board area	NHS board led IMT with links to other NHS boards as required Consider need for Resilience Partnership co-ordinated response if wider consequences	Local HP team and LA staff Consider need for corporate response and/ or mutual aid Support from HPS/PHS and other agencies as required.	HPS/PHS Consider HPS/ PHSAlert[4] HIIAT assessment required in a healthcare infection incident[7] DPH/senior managers in NHS/LA; SGHSCD according to protocol; Consider briefing RRP/ LRP partners & elected members	Hot debrief template[3] SBAR[5] or full incident report for NHS board/ LA and HPS/ PHS
3	**Significant wider impact** - significant risk to wider public health affecting more than one NHS board	NHS board or HPS/PHS-led IMT with input from affected NHS boards as required[6] Consider need for RP co-ordinated response if wider consequences	Local HP Team and LA staff Support from other agencies as required Consider need for corporate response and/ or mutual aid Consider need to activate Business Continuity Plan (BCP) or Major Incident Plan (MIP)	HPS/PHS Alert[3] HIIAT assessment required in a healthcare infection incident Consider UK / EWRS / IHR alert[7] DPH/senior managers in NHS/LA; SGHSCD according to protocol[1] Consider briefing RRP/ LRP partners and elected members	Hot debrief template[3] Full incident report for NHS board/LA and HPS/PHS

Level	Actual or potential impact of incident	Response - Management	Response - Resources	Response - Briefing during incident	Post-incident Reporting
4	**Severe local or wider impact** - major ongoing risk to wider public health affecting one or more than one NHS board with significant disruption of services	NHS board led Civil Contingencies response RP if impact in one NHS board area. or SG led RP response if more than one NHS board area is involved	All available public health resources in the NHS board(s) and LA staff deployed. Request mutual aid Consider HPS/PHS Activate BCP and/or MIP	HPS/PHS Alert[4] UK / EWRS / IHR alert as appropriate[6] DPH/senior managers in NHS/LA SGHSCD according to protocol[1] RRP/LRP partners elected members	Hot debrief template[3] Full Incident report for NHS board/LA and HPS/PHS
5	**Catastrophic impact** - major ongoing impact on public health with major disruption of normal societal functions	SG led RP	All available public health resources in the NHS board(s) and LA staff deployed MIP activated	HPS/PHS Alert[4] UK / EWRS / IHR alert as appropriate[6] DPH/senior managers in NHS/LA; RRP/LRP partners; SGHSCD according to protocol;[1] elected members	Hot debrief template[3] Full Incident report for NHS board/ LA and HPS/PHS

1 See **Annex B** for information on the SGHSCD communications protocol.

2 Levels 0-3: The Healthcare Infection Incident Assessment Tool (HIIAT) should be used to assess every healthcare infection incident i.e. all outbreaks and incidents (including decontamination incidents or near misses) in any healthcare setting (that is, the NHS, independent contractors providing NHS services and private providers of healthcare). See **Annex C**.

3 See **Annex K** for hot debrief template.

4 Alert issued by HPS/PHS to NHS boards, SGHSCD and other partner agencies as appropriate (see **paragraph 100** for details).

5 SBAR - Situation, Background, Assessment and Recommendation.

6 Where HPS/PHS is leading the IMT, NHS boards retain responsibility for the local operational management of the incident.

7 HPS/PHS will liaise with PHE to consider and issue UK alert, Europe-wide EWRS (Early Warning Response System) or IHR (International Health Regulations) notification as appropriate. See **Annex A**.

5. Key Principles

32. The key principles of Incident Management are:

- A state of preparedness;
- Clarity of purpose and integrated working;
- An early and effective response;
- Effective communication with the public and among agencies;
- Learning from experience; and
- A prepared workforce.

5.1 A state of preparedness

33. The management of public health incidents should not be regarded as an activity relevant exclusively to an emergency response, but should be integrated into an NHS board's overall health protection arrangements. Effective day-to-day working in the surveillance, prevention, treatment and control of illnesses related to exposure to hazards or disease, coupled with sufficient capacity in these services to respond to unforeseen increases in need, will enable an effective response to an incident.

5.2 Clarity of purpose and integrated working

34. Public health incidents usually require an integrated response from more than one organisation. NHS boards must work jointly with LAs and other partners to draw up co-ordinated incident response plans, protocols and procedures, which should be regularly updated. These should include the capability of involving other neighbouring and national agencies should this be necessary. Some NHS boards have mutual aid arrangements with other NHS boards and the Director of Public Health (DPH) / Consultant in Public Health Medicine (CPHM) and other staff should be familiar with local arrangements. Plans should be cross-referenced to Joint Health Protection Plans as required by the Public Health (Scotland) Act 2008.

5.3 An early and effective response

35. The prompt detection of and response to an actual or potential public health incident is crucial. Front-line medical and laboratory staff should be aware of and competent to diagnose illnesses likely to present immediate public health risks and notify Public Health. Epidemiological systems should be capable of distinguishing clusters of cases requiring further investigation and control. Systems for monitoring water and air quality should be able to detect the presence of hazards likely to endanger public health. NHS boards and HPS/PHS should ensure that mechanisms are in place to collect, collate and continually review information from these sources, to take prompt decisions on the nature and levels of risks to public health, and to co-ordinate action from a range of agencies to reduce these.

5.4 Effective communication with the public and among agencies

36. Where appropriate the NHS boards should keep the public informed about public health incidents as widespread public anxiety can occur as a result of outbreaks and incidents. Where appropriate, NHS boards must brief the Scottish Government, HPS, local health care staff, and partners in local and national agencies. They must work effectively with the media. Systems should be in place to enable the rapid transfer of information on public health incidents. Those charged with managing incidents should regularly report on progress to the agencies to which they are accountable.

5.5 Learning from experience

37. Those involved in managing incidents are expected to evaluate and report on the effectiveness and efficiency of their efforts. NHS boards, LAs and national agencies should share information on public health incidents with interested parties, so that the whole service can learn from the experience of others. The SHPN has a key role in promoting best practice and lessons learned amongst NHS boards and HPS following public health incidents (**Annex F**).

38. The SHPN will maintain a central repository of Incident Learning collected from incident meetings relating to IMTs, Problem Assessment Groups (PAG) or debriefs for public health incidents through the existing Scottish Health Protection Information Resource (SHPIR) web site. Learning can be disseminated through the routine work of the SHPN and symposium.

39. Multi-agency debriefs can also be accessed on each of the RRP Resilience Direct pages and National Lessons Quarterly Reports are issued by the Scottish Resilience Development Service (ScoRDS).

40. The IMT chair is responsible for identifying and following up key learning points.

5.6 Prepared Workforce

41. To help support the implementation of this guidance in the workplace, staff from all agencies who may contribute to managing public health incidents should be offered appropriate workforce education development opportunities (including CPD activities) on an on-going basis. HPS/PHS and NHS Education for Scotland strategically lead on national health protection workforce education initiatives including the development and delivery of quality assured educational resources and training events in relation to incident management. This work is guided and prioritised by the SHPN Workforce Education Development Group and related national groups.

42. In addition, it is recommended that all staff who may be required to contribute to a resilience multi-agency group in response participate in the ScoRDS core-learning programme so as to develop and maintain their knowledge and skills for effective resilience multi-agency working.

6. Organisational Arrangements

6.1 Accountability and reporting arrangements

43. NHS boards and HPS/PHS share responsibility for improving and protecting public health with LAs. In addition, representatives from other statutory agencies will be involved in planning for and managing public health incidents, each agency fulfilling a remit on behalf of their own organisation and being responsible to it for actions taken in this regard. Each will have its own statutory duties to fulfil with regard to protecting public health. NHS boards, as the lead agency for protecting health, are responsible for the overall integrity of the arrangements for planning for public health incidents, and for the effectiveness of the incident response. See **Annex A** and **Annex B** for more information on roles and responsibilities.

44. NHS boards should reach agreement with their partners, especially LAs, on:

- Developing, training and testing joint plans for managing public health incidents. Normally this will be through Joint Health Protection Planning arrangements. Most public health incidents **do not** require a LRP co-ordinated emergency planning response;
- Reviewing and approving incident plans. Members of the NHS board and where appropriate, political or appointed representatives of other organisations should be involved in this process;
- NHS boards and /or HPS/PHS should:
  - Follow up the recommendations made in IMT reports;
    - Decide where the IMT report should be shared. The IMT group should discuss and make a recommendation on how to share the report. The IMT Chair should then recommend the sharing procedure to DPH and / or NHS board Chief Executive.
    - Follow up on lessons learned (this guidance recommends that this should be the responsibility of the IMT chair);
    - Support a central repository for IMT and SBAR reports and/or debriefs for public health incidents through the existing Scottish Health Protection Information Resource (SHPIR) web site. Learning points will be extracted and collated nationally from submitted reports/debriefs to inform future guidance and service design as continuous improvement, resourced through the SHPN Portfolio Management Team which encompasses HP Service Delivery Managers, Healthcare Scientists and Project Support Officers;
    - Liaise with SGHSCD and other national agencies in developing national plans and procedures and reviewing the overall effectiveness of public health incident management in Scotland.

45. NHS boards should appoint a lead officer to be responsible for putting these arrangements in place and updating them as appropriate. Normally this will be the Director of Public Health. He/she is responsible for ensuring that the NHS board has sufficient resources to discharge the functions detailed in this guidance.

46. Occasionally there will be indications that the IMT is not working as effectively as required. In such instances, the lead NHS board officer (usually the DPH) for assessing IMT performance should take steps with senior management counterparts in the other agencies participating in the IMT, to assess and remedy any shortcomings.

6.2 Joint planning for public health incidents

47. NHS boards should draw up co-ordinated incident plans with LAs and these should be formally endorsed by agencies involved. These plans should be kept under review and jointly exercised at least every three years unless a significant incident has occurred. The plans should outline a generic approach to managing incidents and be suitable to address the investigation and management of incidents resulting from exposure to scenarios involving microbiological, chemical, radiation and other hazardous agents.

48. It is essential that arrangements for handling incidents are integrated with overall wider multi-agency arrangements for emergency response. This is particularly important if there is any question of any criminal activity being involved in the causation of the incident e.g. the illegal supply of drugs and sale of food unfit for human consumption. However, the control of the incident and prevention of further illness must remain the priority. The IMT Chair must consider an early meeting with Police Scotland and other key partners to agree the most effective forensic recovery plan if the police are not members of the IMT.

49. Personal Identifiable Information (PII) may be shared with IMT members on a need to know basis with the agreement of all IMT members to enable taking appropriate control measures to protect public health. If any members of the IMT representing one of the participating agencies have any objections to PII data sharing, then the chair of the IMT should discuss this issue with the Caldicott Guardian of the agency concerned to resolve this matter as soon as possible so that appropriate and timely investigations and control measures can be taken without delay. Further information is given in **Annex E**.

50. NHS boards and HPS/PHS should reach agreement with their emergency planning partners, and in particular Police Scotland, about emergency response arrangements in the circumstances when criminal activity is implicated and consideration should be given to developing memorandums of understanding.

51. In certain incidents, e.g. those involving the deliberate release of a chemical or biological agent, the NHS board, while retaining its own responsibilities, will be required to play a key part in the overall response led by the Resilience Partnership (RP) of the area in which the incident occurs and to have regard to the potential requirement to protect the crime scene in order to avoid prejudicing prosecutions.

52. When incidents involve, or have the potential to involve, criminal proceedings, it is important that the local Crown Office and Procurator Fiscal Service (COPFS) office is kept informed. COPFS has an interest in any deaths which are sudden, unexpected, unexplained or potentially suspicious (giving rise to potential criminal prosecutions).

53. NHS boards, HPS and LAs must ensure that adequate resources are made available from the outset to investigate and manage the incident including the provision of suitable accommodation, facilities and sufficient experienced administrative support, particularly in the case of prolonged investigations. An inadequate initial response may have serious consequences for the wider public health. Investigations should never be delayed for financial or contractual reasons. Representatives of agencies on the IMT should have sufficient devolved authority to commit agency resources required to investigate and control an incident. These issues should be discussed among agencies as part of the arrangements for formally agreeing joint plans.

6.3 The Incident Management Team (IMT)

6.3.1 Arrangements for Leading the Team

54. It is the responsibility of the NHS board to call an IMT. In public health incidents, a Consultant in Public Health (CPH(M)) or Specialist in Public Health will lead the investigation and management of the incident on behalf of the NHS board, chair the IMT and co-ordinate the multi-agency IMT response. Usually this will be a CPH(M) with responsibility for Health Protection who will be acting with the delegated authority of the Director of Public Health. The CPH(M) will be responsible for initial action in response to the incident and convening an IMT. The size and nature of the incident will determine the exact arrangements and the IMT Chair can delegate some of the assigned tasks as necessary.

55. In a healthcare setting, the CPH(M) or the Infection Control Doctor (ICD) will chair the IMT depending on the circumstances and this should be agreed in advance and documented in the local plan. The ICD will usually chair the IMT, lead the investigation and management of incidents limited to the healthcare site, where no external agencies are involved and where there are no implications for the wider community. The CPH(M) would normally chair the IMT where there are implications for the wider community e.g. during TB or measles incidents. For rare events, or where there is doubt about who should lead the investigations, the CPH(M) and ICD should discuss and agree who should chair the IMT e.g. during CJD or hepatitis B/ HIV look backs. Where there is an actual or potential conflict of interest with the hospital service, it may be preferable for the CPH(M) to chair the IMT in discussion with DPH and HAI Executive lead (if necessary).

6.4 Problem Assessment Group (PAG)

56. In some circumstances where it is unclear if there is a threat to the public health, the CPH(M) may choose to convene a Problem Assessment Group (PAG) to undertake an initial assessment and determine if an IMT is required.

57. Outcome of the initial assessment may be one of the following:

- No significant risk to the public health - continue to monitor and PAG stands down;
- Potential/actual significant risk to the public health or environment and/or media interest - IMT required;
- Potential for significant public and/or media interest - IMT required;
- Not possible to determine if there is significant risk with current information - further investigation required. PAG or delegated member of PAG continues to review but no IMT at this stage.

58. The PAG should not delay definitive action and would normally only meet on one occasion to assess the situation.

6.5 Membership of the IMT

59. The membership of the IMT will vary depending on the nature of the incident. The IMT Chair will decide on the composition of the IMT and invite members to attend. The IMT would **normally** include:

- NHS board chair (usually a CPH(M));
- Health Protection Nurse Specialist;
- Local authority Environmental Health Officer;
- Specialist with expertise in the detection and characterisation of the hazardous agent involved in the incident e.g. a consultant microbiologist, public analyst;
- Infection Control Doctor and Infection Prevention and Control Team representative, if appropriate;
- Appropriate Health Protection Scotland/Public Health Scotland representation;
- Corporate communications officer;
- Administrative support;
- SGHSCD representative (e.g. Senior Medical Officer or policy officer) may attend in an observer capacity;
- Others, as appropriately identified by other IMT members.

60. The IMT may include primary care representatives, senior management, managers of affected care areas, clinicians, pharmacists, estates and occupational health as required.

61. It is recommended that the following remain standing agenda items at IMT meetings:

- Membership – Assess if the membership structure is appropriate and remains appropriate throughout an incident. It should be determined locally, be fit for purpose and remain flexible. Roles must be appropriate and members may feed into or integrate with LRP to work together. In particular, STACs may be operational during major public health incidents;
- Resourcing;
- Framework (incident management structure);
- If work escalates or goes beyond the scope of the IMT, consider seeking support through LRP/ RRP / Regional Resilience Coordinator and other personnel.

62. The IMT may also contain officers from other relevant agencies e.g. Scottish Ambulance Service, APHA, Scottish Water, SEPA, FSS etc whose input is essential to manage the incident. This could also include Third Sector organisations where appropriate, e.g. Scottish Drugs Forum. However, it is important that the IMT does not become too large as it may lose focus.

63. Sometimes a Scottish Government official will attend the IMT to facilitate liaison between the IMT and SG. In such instances, unless otherwise indicated, his/her status on the team will be as an observer.

64. The status of IMT members should be clarified at the first meeting i.e. full members, in attendance or observers. Prospective members of the IMT should declare any potential conflict of interest as individuals or on behalf of their organisations. Where a declaration of potential conflict of interest is made, it should be recorded and a decision made on the individual's status. Individuals who are not full members may continue to attend the IMT by invitation, but should not expect to have equal rights in terms of determining the conduct of the investigation, the advice given to the public, the content of press statements, or the final IMT report.

6.6 Role of the IMT

65. The IMT is an independent, multi-disciplinary, multi-agency group with responsibility for investigating and managing the incident. The IMT provides a framework, response and resources to enable the NHS board and other statutory agencies to fulfil their remits which are:

- To reduce to a minimum the number of cases of illness by promptly recognising the incident, defining how cases have been exposed to the implicated hazard, identifying and controlling the source of that exposure, and preventing secondary exposure;
- To minimise mortality and illness by ensuring optimum health care for those affected;
- To inform the patients, actually or potentially exposed groups, staff, clinical and management colleagues, public, their representatives and the media of the health risks associated with the incident and how to minimise these risks; and
- To collect information which will be of use in better understanding the nature and origin of the incident and on how best to prevent and manage future incidents.

66. In carrying out this remit, the IMT should assist the relevant statutory organisations, in a timely manner to:

- ensure that systems are in place to collect and collate all relevant information and verify, review and interpret its significance;
- carry out a risk assessment and decide on courses of action necessary to protect the health of the public;
- co-ordinate the investigation and management of the incident within the protocols and codes of practice of the agencies involved and having regard to extant legislation;
- liaise with HPS/PHS, SGHSCD and other relevant agencies to share information, draw on their expertise and ensure the agencies implement the actions that they are responsible for. See **Annex E** for more detail on sharing personal/patient information;
- co-ordinate the issuing of advice and information to the public directly and through the media, liaising as necessary with the SGHSCD communications team;
- ensure arrangements for the care of patients are in hand, and keep all relevant clinical professionals updated;
- agree criteria for standing the IMT down and declaring the end of the incident; and
- produce a full IMT report or SBAR for the NHS board Clinical Governance Committee normally within three to six months of the debrief. The report should be shared with SHPN if appropriate to ensure lessons identified are captured and shared (see **Table 1**).

67. The IMT may require to set up subgroups to consider specific aspects of the incident within their remit e.g. care of people, clinical care, communications etc. RPs can be used to add value by managing wider aspects of the response, removing them from the IMT. Details of these can be found in '**Preparing Scotland**'.

68. All members of the IMT must have due regard to the confidentiality of information discussed in the IMT meetings. However, the IMT must also bear in mind the need to demonstrate openness and transparency when reporting the facts to the public, and the possibility of records being released under the terms of the Freedom of Information Act. All agencies represented in the IMT must ensure that relevant staff within their own organisations are regularly briefed about the incident.

69. Representatives from the individual agencies involved in an IMT should normally only carry out investigations, assess risk to the public health, take control measures, and make public statements after full discussion and agreement within the IMT, or, if that is not practical, with the IMT Chair. The IMT should bear in mind that some agencies i.e. the FSS and HSE are not bound to seek agreement from the IMT Chair or IMT itself, however the normal expectation would be that they would act in accord with the IMT.

70. Meetings should be kept to a minimum and be as short and efficient as possible without compromising safe working. Careful consideration should be given to the composition of the agenda, the timing, duration and frequency of meetings. Attention should be paid to the context of public concern in which an incident may be taking place, the different information requirements of the print and broadcast media, and the crucial issue of timing, to ensure optimal dissemination of information. Responsibility for this should be clearly assigned. Facilities should be in place to support the IMT i.e. identified room with the appropriate technology which can be commandeered immediately. A draft IMT agenda is included in **Annex G**.

6.7 Administrative support

71. NHS boards and HPS/PHS must ensure experienced administrative support is provided to support the IMT and is available in and out of hours. Accurate records must be kept of all IMT meetings and audio recordings should be considered. Provision must be in place to support good record keeping throughout the incident from the initial notification to the completion of the report. All discussions held, including phone and email, decisions made, and actions taken should be recorded. Agencies should ensure that administrative support is available at all times as required, including after the IMT has stood down for the production of a final report or any possible Freedom of Information Requests. In large or complex incidents, senior administrative support must be available and may need to include loggists and action chasers.

72. The IMT Chair should ensure that the findings of the initial investigation; timing and content of communications; outcome of initial risk assessment; decisions taken and all other relevant matters are carefully documented. This documentation should also include reasons why certain actions were not taken/appropriate as well as why actions were taken/appropriate. A formal Decision Log that records options considered and decision taken should be used to facilitate this process (template attached at **Annex H**).

73. Support for the IMT: In some situations, pressures may be brought to bear on the IMT, which could distract it from its core purpose of managing the public health aspects of the incident for example when there is a sustained, large volume of enquiries about the incident from the public, media and politicians. In large and/or lengthy incidents, the IMT may require to consider the activation of Major Incident Plans and wider aspect of Business Continuity Plans both internally and across the member organisations. In addition, the IMT Chair may require to discuss with the Director of Public Health the need for a corporate response by the NHS and partners to provide additional support within the locally agreed structures, for example an Incident Management Support Team or where necessary Resilience Partnership. Very large incidents can have secondary impacts on a range of services e.g. hospital care, food and water supply and may lead to the need for increased expenditure with money being reallocated from existing budgets. In large and/or lengthy incidents, there will be a need to make appropriate provisions for relieving IMT members who may become fatigued. In such instances, the IMT Chair should discuss with the Director of Public Health the need for a corporate response by the NHS and partners to provide additional support within the locally agreed structures, for example an Incident Management Support Team. In some circumstances, it may be necessary to consider activating Business Continuity and/or Major Incident Plans.

74. The IMT chair and the DPH should consider whether the incident can continue to be dealt with by the Health Protection Team or whether the incident requires a wider Public Health and/or NHS board response. It may be necessary to reprioritise the activity of the public health department and this should be done in a planned way. Shift systems should be implemented if it is anticipated that an incident may be large or protracted. These issues should be documented in Business Continuity Plans.

75. The LA and other agencies involved in the IMT should also consider the impact of the incident on their resources and consider the need to activate their own Business Continuity Plans.

76. LRPs and RRPs will work with the IMT to provide support as required.

The support required from other NHS board staff or partners could include:

- supporting the IMT by providing additional information and resources needed for its effective functioning;
- if necessary, acting as an alternative resource to help deal with certain external factors, including aspects of media enquiries;
- making tactical/strategic decisions on the wider impact of the incident on services not directly implicated in the incident;
- mobilising additional resources to aid the management of the incident; and
- responding to requests from the IMT for additional help required to resolve problems which may compromise the function of the IMT.

6.8 Decision making by the IMT

77. The IMT is not simply an advisory group but an independent group set up specifically to investigate and manage the response to a public health incident. The IMT Chair's leadership role is delegated by the DPH on behalf of the NHS board Chief Executive and the NHS board, as the lead agency for protecting public health. The IMT Chair, therefore, has overall responsibility for managing a public health incident. As such the leadership of an IMT is invested in the IMT Chair and he/she will co-ordinate the activities of the other agencies. Where consequences arise as a result of the incident but not directly related to public health issues, Resilience Partnerships may be established involving the necessary multi-agency representation to manage these consequences.

78. It is expected that the IMT will reach collective decisions but it may be necessary for the IMT Chair to make difficult decisions if the IMT cannot resolve an issue by consensus or if urgent decisions are required between IMT meetings. The final decision on action rests with the IMT Chair. However, in some circumstances it may be necessary for emergency action to be taken to protect the public health e.g. under the Use of Hygiene Emergency Prohibition procedures. The LA should advise the IMT chair that emergency action has been taken as soon as possible.

79. All members of the IMT must recognise their individual roles as a member of the IMT and that they should be in a position to commit to act on behalf of their organisation.

80. Usually all members of the IMT will commit to collective decisions. In the rare event that a member is not supported by his/her organisation to a collective agreement to act, and this cannot be resolved by the IMT Chair, then the issue must be resolved at a higher executive level in both organisations. The DPH of the NHS board should work to achieve this in the first instance, and only if this does not achieve resolution should the Chief Executives of both organisations work to resolve the issue. Escalation to Scottish Government would not normally be envisaged, as issues of significant public health risk should be given priority by all organisations involved.

81. In some incidents, the IMT Chair may be required to contribute to a Scotland wide IMT led by HPS/PHS. In this situation, the IMT Chair retains responsibility for the investigation and management of the local public health response to the incident.

82. If the RP requests that the DPH convene a STAC, this response will be based on the '**Preparing Scotland STAC guidance**'. In this situation, the NHS board still retains the responsibility for the investigation and management of the public health aspects of an incident, accountable to the NHS board, irrespective of an RP led response. There is still a need for the NHS board to ensure that the public health tasks associated with an incident are addressed in line with this guidance.

83. Depending on the situation there are various options:

- If an IMT has already been set up, it could carry on as an NHS board led IMT and the IMT Chair could agree with the RP chair that the IMT would act as the nominal STAC. In this case the focus of an IMT/STAC would remain primarily the investigation and public health management but additional members (e.g. SEPA, Scottish Water etc) could be invited to ensure that any other scientific or technical issues raised during the incident could be addressed if requested by the RPs.
- The alternative model recognises that, in view of an outbreak being primarily a public health incident, there is an overriding need for the NHS board resources to be focussed on maintaining the IMT and addressing the incident from the public health perspective. Hence the IMT should remain intact and separate but as a sub-group of a STAC, itself chaired by the DPH or CPH(M). In this alternative option, the IMT (as a STAC sub-group) should continue to deal with all issues pertinent to the public health response (as per this guidance) and should maintain contact with the STAC but via a liaison representative; the IMT is then free to leave any other scientific or technical advice issues to the rest of the STAC.
- The first option is likely to be preferable where NHS resources are limited. If NHS resources are particularly stretched, there is also the option for the STAC to be chaired by a non-NHS board agency.
- The structures implemented in any incident should be kept under review and essentially must address the needs of the particular situation and will also be influenced by the resources available.

84. In the hospital setting, the Infection Control Doctor (ICD) will usually chair the IMT and lead the investigation and management of healthcare infection incidents. Where there are implications for the wider community e.g. TB or measles, or rare events such as CJD or a Hepatitis B/HIV look back, or where there is an actual or potential conflict of interest with the hospital service, the DPH/CPHM may chair the IMT.

85. In LA premises, the LAs should recognise the potential for conflict of interest and ensure that measures are in place to manage such conflict.

6.9 External Advice

86. There may be circumstances when the IMT needs to seek external expert advice beyond what can be provided by member agencies. This should be discussed and agreed at the IMT.

6.10 After the incident

87. The IMT must decide when the public health response to an incident is over and, if it is appropriate, make a statement to this effect for release to the general public and other interested parties. It is suggested that this would come following formal assessment and report that there is no longer a significantly increased risk to the public health. However, it should be borne in mind that IMT members could be required to give evidence to any future inquiry.

88. The IMT should document the incident to ensure lessons learned are identified and shared. More detail on debriefs and IMT reports is provided in **section 7.8** on evaluation and documentation.

7. Key Functions of Incident Management

7.1 Introduction

89. Local incident management plans should describe how the key functions in managing incidents will be implemented in each NHS board area. These include the following and are described in more detail below:

- Surveillance, notification and reporting;
- Identification and initial response;
- Investigation;
- Risk assessment;
- Risk Management;
- Risk Communication;
- Audit, evaluation and documentation.

7.2 Surveillance, notification and reporting

90. An essential part of incident management is the recognition of a change in the distribution of illness or the occurrence of an illness of major public health significance. To this end surveillance, i.e. the timely collection and collation, analysis and dissemination of information for action, is a vital tool. Following the implementation of the Public Health (Scotland) Act 2008, all registered medical practitioners have a statutory responsibility to notify NHS board Health Protection Teams of any of the specified diseases or health risk states where there may be a significant risk to public health. These should be reported by telephone on the basis of reasonable clinical suspicion rather than awaiting laboratory confirmation. The telephone call should be followed up by written notification using the electronic system, Scottish Care Information (SCI) Gateway, within three working days or by written notification. (Schedule 1 of Public Health (Scotland) Act 2008 **http://www.legislation.gov.uk/asp/2008/5/schedule/1**)

91. Local diagnostic laboratories are also required under the Act to notify specified organisms within the same working day, followed by written/electronic notification within ten days. (Schedule 1 of Public Health (Scotland) Act 2008, **http://www.legislation.gov.uk/asp/2008/5/schedule/1**)

92. NHS boards and HPS should have in place systems which enable them to analyse and interpret information collected through surveillance and identify:

- an increase in the incidence of a communicable disease, or of an illness which may be due to an environmental hazard, over that expected for a specific person, place or time;
- the clustering of cases, in person, place or time, of communicable disease or illnesses which may in part be due to environmental hazards;
- the occurrence of a single case of a serious infection with significant public health implications;
- the occurrence of a novel pathogen;
- a clustering of cases of severe illness which have an unusual clinical presentation;
- a clustering of unexplained illnesses; and
- the occurrence of an event which has led or has the potential to lead to a community or significant proportion of the population, being exposed to a hazardous agent.

93. NHS boards and HPS/PHS should agree with their partners reporting mechanisms which include criteria ('triggers') for notification of certain types of potential incidents (such as water failures) requiring further investigation and risk assessment. The Public Health Act has established a framework and timeframes for registered medical practitioners and diagnostic laboratories to notify the Health Protection Team (HPT) of diseases, organisms or health risk states. However, NHS boards and HPS/PHS should also have plans in place requiring that partner agencies report incidents when:

- Statutory agencies responsible for monitoring air, food and water quality, have information that indicates there may be a risk to public health; and
- Emergency services reporting incidents in which the public may be/have been exposed to harmful agents such as chemical spills.

94. In addition to the formal notifications system described above early identification of a threat to the public health may be identified through informal epidemiological intelligence based on excellent working relationships with local partners e.g. EHOs, GPs, clinicians but also with care homes, schools etc. This facilitates the possibility of early intervention and prevention of illness.

7.3 Identification and initial response

95. The occurrence of one or more of the events indicated above should alert the NHS board and in particular the CPH(M) to the possibility of an incident. Incidents, particularly those involving more than one NHS board area, may be recognised through the national surveillance system operated by HPS/PHS. In certain circumstances e.g. an immediate response to a chemical incident, one or more agencies may have to take urgent action to protect the public before notifying the NHS board. However, the NHS board must be notified as soon as the initial control steps have been taken. This will allow the NHS board to activate a multi-agency response to implement further measures to protect the public.

96. On recognition of one or more of these events, the NHS board should ensure that:

- all relevant agencies with a responsibility for the investigation and management of the incident are informed;
- steps are taken to gather further information about the cases and how they may have been exposed to the hazardous agent;
- an initial risk assessment is undertaken;
- if possible, a working hypothesis as to the cause of the incident is formulated;
- urgent control measures are put in place to protect public health (if necessary).

97. If the initial risk assessment indicates that there are cases of an illness which have significant public health implications and/or there is a probability of the public continuing to be exposed to an infective or other hazardous agent, steps should be taken to convene an IMT. Based on an initial risk assessment, the NHS board should reach a view in conjunction with the partners about the need for specific control measures. These should be instituted as soon as possible and should not necessarily await the convening of an IMT if there is an urgent need to protect public health.

98. Some incidents may be over by the time they are reported or discovered. In this case the focus of the investigation will be on identifying the cause and on the prevention of a future episode. An incident may be limited in terms of size and clinical significance, e.g. an outbreak of norovirus in a care home. In such instances, it may not be necessary to convene an IMT. However, should the outbreak escalate or be a cause for concern, an IMT may be required.

99. Once the initial risk assessment has been carried out (see also **Paragraph 118**), a decision should be made on how the risk is likely to be perceived by the public; how and when it should be communicated and the best medium for doing so. In exceptional circumstances, if there is a need for urgent preliminary communication, it is not necessary to wait for the IMT/PAG to meet. There may also be a need to involve the Scottish Government communications team depending on the nature and scale of the incident.

100. NHS boards, once they have assessed that an incident is or may be occurring, should contact HPS/PHS and the appropriate team within the Scottish Government who will alert appropriate Ministers if appropriate. On receipt of an alert, HPS/PHS should agree with the notifying NHS board whether agencies other than those immediately engaged in the management of the incident, should receive an appropriate alert. This assessment should be based on the likelihood of the incident spreading to other NHS boards, of it receiving extensive media coverage likely to cause public concern or of it being of such a scale that mutual aid may be requested. HPS/PHS should indicate in the alert the level of response required by the receiving agencies:

- for noting - no action required;
- for action - monitoring only;
- for action - monitoring and wider dissemination to NHS; or
- for action - monitoring, wider dissemination and specific measures to be taken by recipient.

101. When appropriate, HPS/PHS will decide, in conjunction with SGHSCD and PHE, if an Early Warning Response System (EWRS) or International Health Regulations (IHR) notification may be required (**Annex A**). HPS/PHS should also record details of the incident received from the notifying NHS board in an Incident Surveillance System developed to monitor the overall number of these types of events occurring in the country, to facilitate assessing their overall impact and the best means of managing them.

7.4 Investigation

102. From the information gathered from the initial investigation, it may be possible to form a working hypothesis about the route of exposure to the infective agent or the environmental hazard involved, the source and level of that exposure, the nature and size of the population exposed or likely to be exposed, and the degree of risk to the public health. The IMT will then decide how to progress a fuller investigation to test the hypothesis. NHS Boards and HPS/PHS should have a clearly defined pathway to define costs for additional work required to access expertise and pay the associated costs.

103. The investigation should usually consist of three elements:

- an epidemiological investigation;
- an investigation into the nature and characteristics of the implicated hazard (in communicable disease incidents, this would be a microbiological investigation); and
- a specific investigation into how cases were exposed to the infective agent or other hazard (e.g. food supply and hygiene, hygiene in healthcare settings) to inform control measures.

104. Most incidents merit detailed description, and a descriptive epidemiological study of cases should be carried out. The IMT should agree a case definition for the purpose of the incident and regularly review and revise this definition, as appropriate, throughout the incident investigation. Standard surveillance forms should be available prior to the incident under investigation, and should be modified for the purposes of the incident. Information from individual cases should be collated preferably using an appropriate computer software package. Line listings and standard epidemiological output, e.g. epidemic curve, incidence rates and exposed populations, time line etc should be presented to the IMT. The working hypothesis may then need to be reviewed. Based on the outcome of the descriptive epidemiological investigation, the IMT may decide to carry out an analytical epidemiological study. HPS/PHS is a resource which can provide expertise and support. It is essential to involve scientific, especially diagnostic laboratories, as early as possible in the investigation of an incident. The scientific specialist on the IMT should advise on the taking of appropriate specimens and arrange for relevant investigations. This should include liaison with the relevant reference laboratory in Scotland, or other specialist laboratories in the UK if necessary. The public analyst should arrange for appropriate investigation of non-human samples e.g. food samples. It is essential that accurate results of tests are available as rapidly as possible to the IMT. The IMT should therefore consider carefully the best use of laboratory resources available, taking into consideration turn-around times for testing and reporting. The laboratory may need to prepare for a substantial increase in samples and plan for surge capacity. Guidance on the submission of clinical samples should be a high priority and should be communicated to all relevant clinicians. As part of the incident investigation, the specialist should advise on the information required by the laboratory to ensure prompt identification of such samples and to distinguish them from other samples.

105. Specific investigations should be undertaken into the reasons for and circumstances in which cases were exposed to the hazardous agent implicated in the incident. This will often involve the taking of appropriate samples for microbiological or other laboratory testing. It also may involve tracing the likely passage of the agent causing illness from the most probable source of contamination or infection to the specific circumstances in which the case was exposed to it. NHS boards and HPS/PHS should liaise with LAs and other agencies in ensuring that relevant protocols for this type of investigation are in place.

106. In the early stages of an investigation, the IMT members should consider whether a criminal investigation is likely to ensue. If so, the Crown Office should be consulted to provide appropriate guidance on evidential procedures required to enable progress but without jeopardising the investigation or control measures.

107. The IMT Chair and others within the IMT who have powers to conduct investigations with a view to potential future criminal proceedings should individually and collectively consider the implications of any potential criminal investigation at the outset. It is therefore essential that all IMT members and their respective organisations record and keep detailed and accurate records from the outset of any investigation. Instigating critical control measures should initially be the objective of the IMT collectively. The results of the epidemiological, microbiological and environmental investigation must be considered together before reaching a conclusion as to their significance to the control of the incident. This should be linked to previous knowledge of the illness involved and local circumstances. Considering the findings from each investigation singly may be misleading. IMTs should take care to assess where the findings may be coincidental. In particular the IMT should review associations which may be considered causal and assess whether there is evidence of bias in the investigation and/or the strength of a specific association.

7.5 Risk Assessment

108. Based on the findings from the investigation and an assessment of the effectiveness of control measures taken, the IMT should assess the ongoing risk to the public from exposure to the hazardous agent involved in the incident. The IMT may wish to reflect on principles within HIIAT for a risk assessment. The purpose of this assessment is two-fold, to assess:

- Whether exposure is ongoing, and
- the impact of exposure (numbers affected and severity).

109. Risk assessment essentially entails appraising the balance of evidence collected in the incident investigation and reaching a view as to whether it indicates that there is an ongoing significant threat to public health. The risk assessment should be dynamic and regularly reviewed e.g. at each IMT.

110. Points to consider in risk assessment:

- **Severity:** Dynamically assessed risk of the degree of foreseeable harm that may be caused to individuals or to the population and possible issues with recovery.
- **Confidence:** Knowledge, derived from all sources of information that confirm the existence and nature of the threat and the routes by which it can affect the population.
- **Spread:** The size of the actual and potentially affected population.
- **Interventions:** The availability and feasibility of population interventions to alter the course and influence the outcome of the event.
- **Context:** The broad environment, including media interest, public concern and attitudes, expectations, pressures, strength of professional knowledge and external factors including political decisions.

111. Conclusions derived from this process are principally a matter of professional judgement. However, for reasons of public accountability and understanding, it is essential that this process is as transparent as possible. The IMT should discuss and record the outcome of the risk assessments. Once the risk has been assessed, a decision should be made on how the risk is likely to be perceived by the public. This should inform the development of specific communications to the public about the risk and how it is being reduced.

7.6 Risk Management

7.6.1 Control measures to prevent further exposure

112. The principal objective of control measures is to reduce the risk to public health. Control measures may be directed at the source of the exposure and/or at affected persons to prevent secondary exposure to the agent.

113. Specific control measures will vary according to the type of incident. In summary they may include the following:

- advising specific groups or the general public on how to avoid and minimise risks e.g. advising condom use, preventing needle sharing, promoting safe food handling, avoid contaminated sites;
- delivering healthcare interventions to prevent the transmission or development of illnesses or their complications e.g. antibiotics, chemical antidotes, immunisation;
- implementing hygiene measures which reduce or eliminate contamination with hazards e.g. respiratory and hand hygiene, environmental decontamination, dust control measures;
- review the current standards of practice to identify areas for immediate improvement;
- curtailing normal daily activities or services e.g. excluding from school or nursery, closure of food preparation or retail premises, either through voluntary agreement or enacting regulatory powers, closing wards/care homes to admissions, limiting public access, identifying circumstances in which usual practices (agricultural, industrial, commercial) should be modified;
- food withdrawals or food warnings; and
- providing alternative arrangements for normal services e.g. drinking water supplies.

114. A range of agencies may be involved in controlling an incident. Many of the measures taken have to be carried out within a legal or statutory framework. At times voluntary agreements will be sought with a range of parties implicated in the incident e.g. food business operators. Wherever possible these voluntary agreements should be recorded and if possible signed by both parties. It is important that professionals and the general public are provided with relevant information on the control measures being taken so that they can understand their relevance to their own safety/practice.

115. Control measures taken by one agency will have implications for those taken in another therefore it is essential that the IMT maintains an overview and co-ordinates such measures. When controls involve or have the potential to involve criminal proceedings, it is important that the local Procurator Fiscal's department is kept fully informed. The agency responsible for a specific control measure should check that the measure is being put in place in the time required and is having the desired impact as defined by the IMT, then report on this to the IMT.

7.6.2 Patient Assessment and Care Measures

116. A major public health incident can lead to significant pressure being placed on primary care and hospital services. It is important that in such instances the IMT establishes effective liaison with senior managers of the NHS board, hospitals, pharmacists, GPs, Primary Care and Community Health services.

117. The IMT should request advice from clinical colleagues on the appropriate management of patients directly involved in the incident. Guidance on the clinical management of patients should be provided to Primary Care, Out of Hours Services, NHS 24 and hospital doctors.

118. The IMT may also need to consider the need to develop plans for the enhancement of specialist hospital based services; support arrangements for GPs and other primary care services; mechanisms to coordinate services between primary care and between and among different hospitals (if more than one is involved). The plan should also indicate arrangements for the admission of patients; the content of communications to professionals, patients and relatives; contact points for enquiries and infection control measures to prevent transmission in healthcare settings.

7.7 Risk Communication

7.7.1 General

119. NHS boards and HPS/PHS should use the Health Protection Network guidance 'Communicating with the Public about Health Risks' to inform their risk communication strategy (see **Annex D**) for links to guidance.

120. Risk communication is an essential part of the process of managing public health incidents. As the main issues to be covered in these communications generally concern hazards to public health, NHS boards should take the lead in decision making on risk communication.

- Decision-making about communication of public health risks should be based on a presumption of openness. Not being open puts at stake the perceived trustworthiness of the agencies involved in managing risks.
- When communicating about risks, health agencies should be clear about the objectives they are pursuing, and identify any key issues which will influence the impact on the public from the communication.
- Plans for public health incidents should contain clear procedures for risk communication. **Paragraph 129** below gives examples.
- Communications should contain messages that are clear, relevant and timely, acknowledging uncertainties and should explain as far as possible the risk to the public in terms of probabilities and by comparing the current risk to others.
- The IMT should keep in mind the particular need for specific communications aimed at defined risk groups (e.g. people who are immuno-compromised, pregnant women), those with reading difficulties or hearing or vision deficits. In addition, the IMT should consider the need for advice to be available in different languages for ethnic minority groups.
- Mechanisms should be in place to monitor the impact of communication on public perception e.g. monitoring the number and nature of calls to a helpline and the extent, content and tone of media coverage.

121. Decisions on risk communication should be recorded. Decisions not to communicate about actual or potential risks to the public health even when these are uncertain should be justified and recorded.

122. If an incident escalates significantly and there is a national response or SG emergency procedures are invoked it is likely that communication and handling will be discussed and agreed with SG.

7.7.2 Communications Plans

123. NHS boards and HPS/PHS should have a communications plan which indicates how they will provide information about the incident and its control to the following key groups:

- the key agencies involved in managing the incident;
- professionals involved in diagnosing, treating, or advising patients who are, or could be cases of infection or toxic exposure;
- the general public and in particular the community directly affected by the incident;
- HPS/PHS and SGHSCD; and
- Contribute to multi-agency response via LRP/RRP structures, if appropriate

7.7.3 Intra and inter agency communications

124. If time allows the CPH(M) should brief the relevant agencies likely to be involved in responding to the incident prior to the first IMT meeting. Information should be regularly updated as appropriate. As part of their emergency plans, NHS boards and HPS/PHS should maintain a contact list (including out of hours arrangements) for representatives for all key agencies. NHS boards and HPS/PHS should ensure that there are procedures to ensure that on notification, information is passed to Director of Public Health, senior management and the communication team. The relevant LA and HPS/PHS should be informed about suspected incidents. CPH(M)s should be informed of all hospital infection incidents (and will report to DPH), regardless of whether chaired by ICD or CPH(M). The IMT should discuss and agree the level to which briefings should be escalated within each relevant agency.

125. NHS boards and HPS/PHS must notify suspected public health incidents to the SGHSCD, if possible prior to the first meeting of the IMT. Notifications should be made to a SGHSCD representative (e.g. SMO or policy officer) in line with the protocol agreed with Scottish Government Ministers in 2007 (excluding all infection incidents and outbreaks in any healthcare premise for which separate arrangements apply, see **Annex C**). The IMT should agree clear channels of communication and reporting lines at the first meeting. This should include a single channel of reporting in to SG. If the incident is thought to be the result of foodborne exposure, Food Standards Scotland (FSS) should be notified. SGHSCD should receive regular updates on the progress of the incident during working hours and out of hours. If the incident is related to a public drinking water supply, Scottish Water should notify the Drinking Water Quality Regulator (DWQR). SGHSCD and the DWQR should liaise to ensure a consistent message from the SG.

126. During an incident, a range of professionals working in diagnostic laboratories or clinical services will require information about the nature of the hazard, care arrangements, diagnostic testing, advice to the public, the scale of the incident and steps taken to control it.

127. NHS boards and HPS/PHS should have mechanisms in place for the effective and timely sharing of information while applying methods in-line with the Caldicott Guardian encompassing information management principles. Where e-mails are used, it should be ensured that secure email addresses are used for sensitive or patient identifiable data and alternative routes of communication are used for those e-mails which do not fulfil these criteria. However, it is important to appreciate that when investigating and managing an incident, colleagues may not be at their base so any urgent communication should still be by telephone. A loggist should be used to record all decisions, actions and communications.

128. Where deaths have or may have arisen as part of an incident, the IMT Chair should ensure that the Procurator Fiscal has been informed.

7.7.4 Communications with the public

129. To help allay any unnecessary public anxiety, communications should be made as early as possible in the management of the incident. This requires tested systems capable of rapid deployment that are ready for use prior to any incident occurring. The following mechanisms should be considered:

- face to face communication with affected individuals or groups e.g. patients, staff, general public at public meetings;
- the establishment of a special helpline provided by NHS 24;
- letters or fact sheets provided directly to patients, staff, members of the public in an affected healthcare setting or community;
- information in the form of statements, press releases, interviews and briefings for the print and electronic media (see section below);
- specially designed information leaflets to be distributed at appropriate points;
- social media can be used as a monitoring tool as well as for distributing messages;
- briefing key members of the public such as head teachers, MSPs, councillors, members of local health council.

130. Wherever possible standard templates for communicating with the general public and the media should form part of planning for more common or potentially dangerous types of incidents. They should include standard press releases and ‘question and answer’ information sheets. These should require minimal customisation during incidents to facilitate speedy communication. Examples of documentation used in previous incidents may be available on the SHPIR website under Incident Learning.

131. In addition, each Regional Resilience Partnership has a multi-agency communications and media plan which fulfils statutory duty to warn and inform the public. During incidents and emergencies, partner agencies are used to working together and these networks and arrangements should be utilised to support public health led response.

132. NHS 24 can provide a range of services to support NHS boards which should be actively considered. NHS 24 may be able to provide more extensive support in a major public health incident, based on the organisation's contact centre network, technology, voice infrastructure and contingency arrangements. Please refer to **Annex B, paragraph 26**.

133. In some types of incident, private or public sector organisations implicated as probable sources of the exposure to a hazard will have existing lines of communication to their customers, clients or patients. At times, the organisation may form part of the IMT e.g. Scottish Water as described in the Scottish Waterborne Hazard Plan. Use of these lines of communication can often facilitate advising the public on how to reduce risks and to implement control measures to prevent exposure e.g. not drinking the water. In these circumstances, the IMT should liaise with the organisation in employing its knowledge and resources to communicate with public about risks. The IMT should co-ordinate the content and tone of any messages and how these should be disseminated.

134. NHS boards and HPS/PHS should have in place mechanisms to establish special helplines promptly e.g. via NHS 24. In some incidents, the public will look to contact a specific company or agency to obtain information about their services or products. In these instances, the IMT should liaise closely with the organisation about the measures it is taking to deal with customer enquiries while recognising that the mechanisms for doing so are best left to the company involved. It should be made clear however that the central public health message is the responsibility of the IMT.

135. The IMT should maintain an overview of all communications to ensure that there are no contradictions in their content or tone, or alternatively may set up or delegate a sub-group to manage the communication messages. The IMT Chair, or delegated deputy, has overall responsibility and should agree any suggestions/changes to external communications prior to their being distributed for comment or release.

7.7.5 Media handling

136. The considerable extent of public, press and political interest in recent incidents highlights the importance of paying careful attention to this aspect of incident management. There is a need, in large-scale incidents, for a clear and proactive approach to media management and public relations especially by NHS boards. In view of the crucial interface with the media, media management should form an essential part of incident plans. Actively engaging with the media and providing accurate and timely information may prevent inaccurate reporting and negative outcomes. Early implementation of RRP communication and media plans will assist effective coordination of media resources and messaging.

137. For all national and large-scale incidents, NHS boards and HPS/PHS should bear in mind that there will be a need to co-ordinate media activity closely with the Scottish Government communications team and partner agencies. SGHSCD will often refer media to the local NHS board for detailed information but it is important that key messages are co-ordinated.

138. There are two important roles that require to be fulfilled, that of media liaison and that of acting as spokesperson for the IMT.

139. To fulfil the first role, a member of the NHS board's communications team should liaise with the media to ensure that the information communicated to them is consistent and to organise arrangements for press briefings, interviews etc. He/she should be the identified communication team member acting in this capacity on behalf of all organisations involved in the IMT. The IMT Chair, or delegated deputy, would usually fulfil the second role i.e. be the 'public face' of the IMT. There may be situations when the communications team fulfils both roles. If other professional opinions are sought from individual IMT members, these should not be given without the agreement of the IMT Chair and full liaison with the communications team. Whenever possible those from other organisations answering media enquiries should be members of the IMT.

140. In some instances, it may be desirable for other organisations represented on the IMT to respond to press enquiries which specifically relate to their operations or legal responsibilities. Arrangements should ensure that such organisations can respond promptly to such enquiries without straying from, or indeed contradicting the core message about the public health risks and the measures being taken to reduce them.

141. To avoid confusion, a common data set (e.g. on number of cases and their clinical status) and a timetable for its compilation and issue to the media should be agreed by the IMT. Decisions about media briefing, and the issuing of press statements, should be made at each IMT meeting. In doing so, careful consideration should be given to:

- background briefing material, e.g. role of the IMT, the general nature of the hazard or threat, what is known, and important facts which may not be known;
- the implications of releasing the information;
- the implications of the timing of the release;
- the importance of presenting complex information in simple language;
- and the different requirements of the print and broadcast media; and
- consideration given to use of more immediate social communication tools.

142. All press statements issued should be copied to the press offices of all organisations represented on the IMT, the SGHSCD and other relevant organisations.

7.8 Incident evaluation, documentation and lessons learned

143. A recurrent theme with public health incidents is the need to learn from experience. This involves three key components:

- A formal IMT debriefing on the management of the incident with a view to including lessons learnt in an IMT report. The debrief should take place as soon as possible after the incident. (If required/requested, the RRP can assist in facilitating the debrief process via the Learning & Development Coordinator, however as sponsor, the IMT remains the owner of the information and responsible for any further actions that may arise);
- An assessment of the performance of statutory agencies in managing public health incidents; and
- An evaluation of the effectiveness of incident management arrangements in protecting the public health.

144. Organisations' emergency planning / civil contingencies officers may be able to advise and assist with a multi-agency debrief for multi-agency incidents. The report resulting from the debrief would be handed over to the IMT chair. The IMT chair would retain ownership of the debrief report including lessons learned.

145. IMTs both during and in the debriefing following an incident should use criteria jointly agreed with their partners (**Annex I**) to assess and report on their own performance to the NHS board clinical governance committee in managing the incident and the appropriateness of current plans. Recommendations on how these can be improved should be included in a report prepared by the IMT for which the IMT Chair has the overall responsibility for producing.

146. The IMT should prepare a report and the IMT Chair has the overall responsibility for its production as illustrated in **Table 1**. The IMT report should be the product of agreement of all full members of the team. If this is not possible, the report should note areas of disagreement. A template for the report is provided in **Annex K**. The report should, in addition to describing the incident, consider the effectiveness of the investigation and the control measures taken. The report should include recommendations to prevent further incidents and improve the handling of further incidents and may include an identified need for further research.

147. Based on the results of the investigation, risk assessment and debriefing, the IMT should formulate targeted recommendations with timescales. The IMT Chair should ensure that the report and specifically the section dealing with the recommendations, is communicated to the targeted organisation. NHS boards and HPS/PHS are responsible for monitoring whether IMT recommendations are followed up. The NHS board to which the IMT is accountable should ensure that there is a response to the recommendation from that organisation for its implementation. If it has statutory responsibilities, it must reply to the NHS board laying out its response to the recommendation.

148. In some instances, it may be necessary to delay or limit the circulation of the final report pending legal action. In such cases, appropriate legal advice should be sought.

149. The IMT Chair, in discussion with the IMT, should determine the most appropriate format for reporting the incident, e.g. full IMT report, SBAR, or hot debrief paper should also be completed for incidents where learning or recommendations have been identified for national consideration (see **Annex I**).

150. A full IMT report (a suggested template is provided in **Annex L**) should be considered in the following situations:

- Significant lessons identified that should be shared locally or nationally;
- Actions required by other agencies to address problems identified;
- Novel infection, sources or pathways of infection;
- High mortality or morbidity;
- Changes required in guidance; or
- Significant public or political interest.

151. If the IMT Chair does not consider a full report is necessary then a summary of the incident should be provided in an SBAR (Situation, Background, Assessment, Recommendations) format. SBAR template is provided in **Annex J**. The SBAR format can also be used for updates during the incident.

152. IMT reports should be sent for approval and endorsement to the relevant NHS board meeting or a NHS board Committee e.g. Clinical Governance Committee. They may then decide who to share the report with e.g. SHPN, local authorities, SGHSCD etc. The reports should then be sent to the SHPN and made available to appropriate individuals, the LA, and the SGHSCD or other SG Directorate with responsibility for aspects of the outbreak/incident. Other relevant regulatory agencies should receive a copy.

153. The SHPN has agreed to maintain a central repository for IMT and SBAR reports and/or debriefs for public health incidents through the existing Scottish Health Protection Information Resource (SHPIR) website. The repository would be populated with new reports as they are published and IMT Hot Debrief reports as they are received. The latter shall be used by NHS boards and HPS/PHS for any future outbreak/incidents in order to capture initial lessons learnt immediately as a ‘hot debrief’ recognising that some IMT reports take months/years to be published.

154. The NHS board is responsible for approving an action plan to follow up the recommendations contained in the report, (where this is required). The action plan should be appended to the copies of the report submitted to SGHSCD. If a recommendation has major policy implications or if the response from the agency to which an action is recommended is deemed by the NHS board to be inadequate, the NHS board should inform SGHSCD who will review the issue further.

155. In addition to an IMT report, all relevant incidents should be summarised in the appropriate standard summary form for submission in timely fashion to HPS/PHS for the purposes of incident surveillance.

156. The role of SHPN in supporting collation of lessons learnt and sharing is described in **Annex F**.

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Annex A: Statutory Responsibilities and Legislation

International Obligations

1. The International Health Regulations, 2006 are a legally binding international instrument to: 'prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international trade and traffic'.

2. The IHR define a list of diseases that must always be reported to WHO. These include:

    - Smallpox;
    - Poliomyelitis due to wild-type poliovirus;
    - Human influenza caused by a new subtype; and
    - Severe acute respiratory syndrome (SARS).

3. In addition, the UK has an obligation to assess other events using an IHR tool and to notify the WHO of those events that may constitute Public Health Emergencies of International Concern (PHEICs). This can include non-infectious events (chemical/radiological).

4. The UK Governments (including the devolved administrations) have designated Public Health England (PHE) to act as the National Focal Point (NFP) for all of the UK and only PHE should communicate directly with the WHO on IHR matters

5. The European Commission established the Early Warning and Reports System (EWRS) in 1999. The EC Decisions on it have been updated on a number of occasions, most recently Commission Decision 2009/574/EC. The Decision sets out obligations on Member States to report specified threats to public health to each Member State so that they can determine if measures may be required to protect public health in their country. The information is transmitted by specified competent bodies through an accredited structure and process managed by the European Centre for Disease Prevention and Control (ECDC). The Competent Body for the UK is PHE. HPS/PHS liaises with PHE if there is need to send out or respond to an EWRS relevant to Scotland. EWRSs originating from the UK are approved by the relevant Health Departments.

6. **Events to be reported within the Early Warning and Response System are:**

    - Outbreaks of communicable diseases extending to more than one Member State.
    - Spatial or temporal clustering of cases of disease of a similar type, if pathogenic agents are a possible cause and there is a risk of propagation between Member States.

- Spatial or temporal clustering of cases of disease of a similar type outside the Community, if pathogenic agents are a possible cause and there is a risk of propagation to the Community.
- The appearance or resurgence of a communicable disease or an infectious agent which may require timely, coordinated community action to contain it.

7. The Surveillance and Response Support Unit of ECDC aims at ensuring the timely detection of communicable disease threats, their assessment and the provision of support to enable Member States to control and mitigate them. As such it develops and maintains ECDC data bases and communication platforms including EWRS and the European Surveillance System (TESSy). The latter collects, validates, analyses and disseminates data and produces outputs for public health action. All EU Member States must report their available data on 49 communicable diseases to TESSy as described in EC Decision 2119/98/EC.

The Civil Contingencies Act 2004

8. The Civil Contingencies Act 2004 and Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Amendment Regulations Scotland 2005 and 2013, delivers a single framework for civil protection in the United Kingdom. The Act is separated into two substantive parts: local arrangements for civil protection (**Part 1**) and emergency powers (**Part 2**). Part 1 of the Act establishes a clear set of roles and responsibilities for those involved in emergency preparation and response at the local level. The Act divides local responders into two categories, imposing a different set of duties on each. Those in Category 1 are those organisations at the core of the response to most emergencies. This includes NHS boards as well as emergency services and LAs.

9. Category 1 responders are subject to the full set of civil protection duties. They will be required to:

- Assess the risk of emergencies occurring and use this to inform contingency planning;
- Put in place emergency plans;
- Put in place Business Continuity Management arrangements;
- Put in place arrangements to make information available to the public about civil protection matters and maintain arrangements to warn, inform and advise the public in the event of an emergency;
- Share information with other local responders to enhance co-ordination;
- Co-operate with other local responders to enhance co-ordination and efficiency; and
- Provide advice and assistance to businesses and voluntary organisations about business continuity management (LAs only).

10. Category 2 organisations (e.g. NHS National Services Scotland, transport and utility companies) have lesser obligations placed on them but will be heavily involved in incidents that affect their sector. They should be engaged in discussions where they can add value and they must respond to all reasonable requests.

11. Category 1 and 2 organisations will come together to form Regional Resilience Partnerships (RRPs) and Local Resilience Partnerships (LRPs) which will co-ordinate activities at a local level.

The Public Health etc (Scotland) Act 2008

12. The Public Health etc (Scotland) Act was passed in 2008 and sets out the public health duties of Scottish Ministers, NHS boards and LAs. Scottish Ministers have a duty to protect public health i.e. to protect the community from infectious disease, contamination and any other hazards that constitute a danger to human health. This includes the prevention of, control of, and provision of a public health response to such disease, contamination or other hazards. Under the Act 'contamination' means contamination with biological, chemical or radioactive substance; 'infectious disease' means an illness or medical condition caused by an infectious agent (including notifiable organisms).

13. Where a NHS board or LA, in the view of Scottish Ministers, is considered to be failing to exercise a function under the Public Health Act or to exercise it acceptably, then Scottish Ministers have a power to issue a direction to the NHS board or LA. This would require the function to be exercised and in the manner directed. In addition, the Scottish Ministers may require another party to exercise the function. These powers would be expected to be used rarely.

14. Under the Act, NHS boards and LAs have a duty to protect public health. They also have a duty to co-operate which is enshrined in the 1978 NHS (Scotland) Act which also outlines the requirements on Education Authorities. This is complemented by the 2003 duty of wellbeing placed on local authorities. (See **Annex B, paragraph 23**). In addition, each NHS board and LA must designate a 'competent person' or persons who have the necessary qualifications and experience to enact specific powers under the Act.

15. The split of responsibilities under the Act between NHS boards and LAs essentially falls into a responsibility of NHS boards in relation to 'people' and of LAs in relation to 'premises'. The Act also requires NHS boards and LAs to co-operate with each other and with the Common Services Agency (essentially National Service Scotland (NSS) and Health Protection Scotland (HPS)/ Public Health Scotland (PHS) and the Scottish Ministers (Scottish Government)).

16. The Act also requires each NHS boards to work with partner LAs to prepare a biennial Joint Health Protection Plan and must consult the LAs on that plan. The joint plans will set out the overall health protection priorities and out of hours arrangements of the NHS board and LA taking into account the local geography and infrastructure of the population served.

17. The Act sets out a new list of notifiable diseases (duties on registered medical practitioners),notifiable organisms (duties on laboratories) and how and where notifications have to be made. In addition, it sets out a new category of 'health risk states' to be notified where a registered medical practitioner has grounds to suspect that a patient has been exposed to a 'health risk state'. 'Health Risk state' is not specifically defined in the Act but will allow the powers under the Act to be used for new and emerging organisms and other unanticipated health hazards.

18. Further information about the Act and accompanying Guidance can be found at the following link - **http://www.legislation.gov.uk/asp/2008/5/pdfs/asp_20080005_en.pdf**

Other legislation

19. In addition, LAs have a range of duties and powers which they may invoke to protect the public health during an incident. These include those under the terms of:

- The Food Safety Act 1990 (as amended)
- The Food (Scotland) Act 2015;
- The Health and Safety at Work etc. Act 1974;
- The Environmental Protection Act 1990;
- The Public Health etc. (Scotland) Act 2008;
- International Health Regulations, 2006;
- The Public Health (Ships) (Scotland) Regulations 1971-2007;
- The Public Health (Aircraft) (Scotland) Regulations 1971-1978
- The Food Hygiene (Scotland) Regulations 2006 (as amended).

The Coronavirus Act 2020

20. The Coronavirus Act 2020 was passed on 25 March 2020. The legislation is initially time limited for two years (but could be temporarily extended). The Act puts in place new powers specifically for dealing with the Coronavirus pandemic.

21. Schedule 21 provides public health officers, constables and immigration officers with new powers in relation to individuals who are considered to be potentially infectious. The powers are only available during a "transmission control period", which is a period during which a particular statutory declaration made by Scottish Ministers is in force.

22. The Schedule gives "public health officers" (these are health board competent persons, or other people who may be designated by Scottish Ministers) powers to require potentially infectious persons to go to, and remain in, a suitable place to undergo screening and assessment. These powers can be used where there is a

reasonable suspicion that the person has or may have COVID-19, or has been in an infected area within the 14 days preceding that time. (Such persons are referred to in the provisions as 'potentially infectious' persons.)

23. There are additional powers for public health officers, including powers to impose other appropriate restrictions and requirements upon potentially infectious persons where necessary and proportionate, such as a requirement to remain in isolation, restrictions on travel, activities and contact with others.

24. The Schedule also confers certain powers on constables and immigration officers – allowing them to direct, remove or keep a person at a place for the purpose of assessment.

25. The Act also gives powers to Scottish Ministers. These include powers in Schedule 22 to issue directions relating to events, gatherings and premises which could, for example, be used by Scottish Ministers to close particular premises where there is an outbreak.

26. The Act also gives Scottish Ministers powers to make Regulations for the purpose of preventing, protecting against, controlling or providing a public health response to the incidence or spread of infection or contamination in Scotland (Schedule 19). If you want to find the latest coronavirus Regulations that are in force, then they will be available at **www.legislation.gov.uk**.

Annex B: Organisational Roles and Responsibilities

Scottish Government Health and Social Care Directorates

The Scottish Government's roles include the following:

- Strategic and Policy role (including CMO letters and HDLs);
- Performance management role - NHS territorial and special Health Boards

Performance Management Role

1. NHS boards and HPS/PHS are accountable to the Scottish Government (SG). Performance management of territorial NHS boards is handled by the Directorate for Health Performance and Delivery who has a range of formal procedures in place agreed with Scottish Ministers. This includes an interim performance review and an end year review, which is held in public by the Cabinet Secretary for Health. NHS boards work to an agreed set of indicators which are now managed under the auspices of the Quality Strategy.

Strategic and Policy Role

2. The SG is responsible for setting policy and strategic direction and this includes policy and strategy issues that arise during the course of or because of an incident. The extent of the SG's involvement will depend on the scale of the incident - far less active involvement will be expected for a smaller single NHS board incident than a national incident in which civil contingency procedures may be engaged. This section explains the SG's role in various different scenarios.

Notification

3. For many incidents, regardless of scale, the SG will, as a minimum, require notification as early as possible so that Ministers can be informed.

4. The Directorate for Population Health is the main point of Government contact for public health incidents (excluding all infection incidents and outbreaks in any healthcare premise, for which separate arrangements apply. See **Annex C**).

5. If required, the Directorate for Population Health or the Directorate for Covid Public Health will follow the 'Protocol for informing Ministers about significant public health incidents and outbreaks' and a decision will be taken on the need to inform and brief the duty Scottish Government press officer.

N.B. For the Covid-19 pandemic response, the main point of Government contact for public health incidents related to Covid-19 is the Directorate for Covid Public Health.

Food Incident Notifications

6. The SG has a Concordat with Food Standards Scotland (FSS). Both parties will ensure immediate communication on matters relating to outbreaks and incidents of foodborne or potentially foodborne disease and will establish lines of communication for the duration of the incident or outbreak.

Communications with the CMO Team

7. Clear channels of communication will be established between the Chief Medical Officer's team and the IMT. This will be the sole line of communication in terms of the progress of the public health incident. It is useful for the IMT chair to agree times for updating the Senior Medical Officer on a regular basis. This can, for example, be agreed to be 30 minutes following the IMT meeting. It is important to avoid the risk of conflicting data being provided via multiple briefings. It will also be important for the IMT Chair to contact the Senior Medical Officer (SMO) if there are significant events of which the SG should be aware (excluding all infection incidents and outbreaks in any healthcare premise, for which separate arrangements apply, see **Annex C**). Speed is essential in communicating important information to Ministers, particularly if it is likely to be of interest to the media.

8. In the majority of public health incidents in Scotland the response of SMOs and the policy team would be all that is necessary.

An incident affecting two or more NHS boards with no major disruption of services or a Scotland or UK-wide outbreak or incident with some but no major disruption of services

9. In this scenario, the SG is likely to liaise more proactively with HPS/PHS, particularly if they are managing the incident on behalf of SG. They will seek to work with HPS/PHS to identify and resolve any policy or handling issues at an early stage and to communicate proactively with NHS boards involved. If the incident involves another country within the UK, the policy team would establish links with opposite numbers in e.g. the Department of Health and set up a regular channel of communication. They would also liaise proactively with SG communications team and provide regular updates to Scottish Ministers. For a major incident, arrangements are in place to allow the relevant Scottish Government Division to draw on additional health directorates resources.

10. The role of the SG team supporting the response can be summarised as follows:

- providing regular and timely advice to Scottish Ministers;
- providing regular information and agreeing public lines with the Health Communications Team;
- providing information and advice to any other relevant area of health directorates and other Government directorates as required;
- liaising with other devolved administrations and UK Government as required;

- liaising with HPS/PHS;
- liaising with any other relevant agency in Scotland; and
- assessing the effectiveness of the local or national response (with HPS/PHS and NHS Boards) and considering resource impact on national policy or strategy.

Incidents with major disruption of services requiring the mobilisation of significant surge capacity and the establishment of regional or national multi-agency strategic, tactical and operational management arrangements (e.g. pandemic flu)

11. In the circumstances of a national level emergency, SG emergency planning procedures may be implemented including establishment of the SG Resilience Room (SGoRR) with regular meetings of officials and Ministers. A lead SG department (and lead Minister) is likely to be designated according to the nature of the emergency. There may also be SGoRR Officials meetings which will support the Ministerial meetings.

12. If this becomes or is part of a UK Major Incident then the Cabinet Office Briefing Room (COBR) may be established, and SG will link into COBR at officer and Ministerial level. The UK Government would convene their Civil Contingencies Committee and Civil Contingencies Committee (officials). There may also be circumstances where an emergency in Scotland relates to an area of responsibility reserved to the UK Government (in which case a UK Govt department would be in the lead and would liaise with the Scottish Government).

13. All Scottish Government activity in a national level emergency is co-ordinated through the SGoRR supported by relevant Directorates and Resilience Partnerships. The SGHSCD Health Resilience Unit (HRU) is likely to produce regular situation reports (SitReps) which cover all aspects of an incident. It is likely that the Resilience Team would request information from the relevant Health Board/s for inclusion in the report. This would be in addition to the ongoing liaison between the NHS board and the SMOs in SG. All relevant Scottish Government Directorates will work closely together when managing an incident of this scale.

Health Protection Scotland

14. As of 1 April 2020 Health Protection Scotland (HPS) operates as part of Public Health Scotland (PHS). Its aim is to work, in partnership with others, to protect the Scottish public from being exposed to hazards which damage their health and to limit any impact on health when such exposures cannot be avoided. It seeks to achieve this aim by:

- promoting a consistent, efficient and effective approach in the delivery of health protection services by NHS and related agencies;
- co-ordinating the efforts of public health agencies in Scotland in health protection especially when a rapid response is required to a major threat;
- helping increase the public understanding of and attitudes to public health hazards and facilitating their level of involvement in the measures needed to protect them from these;
- being the source in Scotland of expert advice and support to government, NHS, other organisations and the public on health protection issues;
- helping develop a competent health protection workforce;
- improving the knowledge base for health protection through research and development.

15. The key functions of HPS in PHS are:

- Monitoring the hazards and exposures affecting the people of Scotland and the impact they have on their health;
- Co-ordinating national health protection activity;
- Facilitating the effective response to outbreaks and incidents;
- Supporting the development of good professional practice in health protection;
- Monitoring the quality and effectiveness of health protection services;
- Research and development into health protection priorities;
- Providing expert impartial advice on health protection;
- Promoting the development of a competent and confident workforce in health protection; and
- Commissioning national reference laboratories.

16. HPS in PHS has the following responsibilities for facilitating the response to incidents:

A localised incident affecting a single NHS board with no major disruption of services

- Maintain communication with and provide access to expert advice to the NHS board;
- Liaise when necessary with the Scottish Government and/or Food Standards Scotland;
- If available, provide additional personnel to facilitate the management of the incident who will be managed for the relevant period by the NHS board; and
- Work with the NHS board to assure the quality and effectiveness of the steps taken to manage the incident and in particular help ensure that there is a structured debrief.
- Health alerts arising from an incident
  - distribute information to relevant staff in the NHS and LAs, if appropriate;
  - copy information to SG; and
  - respond to queries concerning the subject matter of the alert.

An incident affecting two or more NHS boards with no major disruption of services

- agree with the NHS boards the appropriate management arrangements (i.e. a single IMT or two or more IMTs). This may include as an option HPS/PHS assuming responsibility for leading the overall management of the incident on behalf of an NHS board;
- on behalf of the parties to the joint arrangement, co-ordinate surveillance, investigation, risk assessment and management and risk communication; and
- operational management locally will remain the responsibility of NHS boards.

A Scotland or UK-wide incident with some but no major disruption of services (e.g. a foodborne outbreak associated with a nationally distributed foodstuff)

- lead the management of the incident in Scotland and establish appropriate arrangements on behalf of SGHSCD;
- with regard to an incident affecting one or more of the countries in the UK, lead Scotland's participation in UK-wide management arrangements. This may involve leading in certain circumstances the UK response;
- co-ordinate surveillance, investigation, risk assessment and management and risk communication; and
- operational management locally will remain the responsibility of NHS boards.

Any of the above incidents with major disruption of services requiring the mobilisation of significant surge capacity and the establishment of regional or national multi-agency strategic, tactical and operational management arrangements (e.g. pandemic influenza)

- When an incident requires the activation of the RP (based on the current emergency planning arrangements set up with Police Scotland), HPS/PHS will support the NHS board in discharging its functions regarding health protection advice to the SCG. As with an IMT, HPS/PHS will advise and support the Scientific Technical Advice Cells (STACs) on the health protection response with NHS boards co-operating with, and taking advice from, HPS/PHS.
- When an incident requires the establishment of a national strategic multi-agency group by the SG, HPS/PHS will support SG (and in particular the CMO) in discharging its functions regarding health protection advice to the strategic lead. HPS/PHS will be responsible for coordinating the tactical health protection response by the NHS boards (e.g. surveillance, investigation, risk assessment and management and risk communication). NHS boards will remain responsible for the operational health protection response.

NHS boards

17. Under the terms of the National Health Service (Scotland) Act 1978, the NHS in Scotland is charged with two statutory duties:

    - securing improvement in the physical and mental health of the people of Scotland;
    - securing the prevention, diagnosis and treatment of illness.

    NHS boards, as the lead agency for protecting health, are responsible for the overall integrity of the arrangements for planning for public health incidents and for the effectiveness of the incident response, including leading the response and the related IMT. Where the IMT is being led by HPS/PHS, e.g. in a Scotland-wide incident, NHS boards will contribute to the IMT as required. Operational management locally will remain the responsibility of NHS boards.

18. Under the terms of the Public Health (Scotland) Act 2008, NHS boards have a duty to ‘continue to make provision, or secure that provision is made, for protecting public health in its area, without prejudice to its general duty to promote the improvement of the health of the people of Scotland’ and a duty to ‘co-operate with any relevant person who appears to have an interest in or a function relating to the protection of public health’.

19. NHS boards have a range of powers available to them under the Act which can be exercised by their designated 'competent person':

- receive notification of a disease or health risk state from a registered medical practitioner either orally or in writing, relating to a patient who usually resides within that area and a duty to send a return in writing to Public Health Scotland;
- receive notification from the director of a diagnostic laboratory, where the laboratory identifies a notifiable organism no later than 10 days after identification;
- undertake public health investigations including powers for investigators to enter premises, ask questions etc.;
- apply to a Sheriff to have a person medically examined;
- make an 'exclusion order' which will exclude a person from any place or type of place specified in the order, and impose such conditions (if any) on the person as is considered appropriate;
- make a 'restriction order' which will prohibit a person from carrying on any activity specified in the order, and impose such conditions (if any) on the person as is considered appropriate; and
- apply to a Sheriff for an order to require a person to be quarantined in their home or other setting, other than a hospital or to have a person detained in hospital.

N.B. For the COVID-19 response, under the Coronavirus Act 2020, Health Board Competent Persons also have powers that allow them to impose certain measures when there is a reasonable suspicion that a person has Coronavirus (see **Annex A**).

20. In addition to the above, a SEHD/CMO (2007) is available setting out NHS boards' Health Protection remit. The CMO letter clarifies that the operational responsibility for health protection services lies primarily with NHS boards. Health Protection Scotland / Public Health Scotland has a role in helping to ensure a consistent, efficient and effective approach in the delivery of these arrangements. The role of NHS boards will always focus on operational management of an incident, but the paragraphs above indicate how the lead role will change during escalation of an incident and in relation to the roles of HPS/PHS and the SGHSCD.

Diagnostic Microbiology Laboratories

21. The director of a diagnostic laboratory must ensure the appropriate authorities are informed of notifiable organisms as described in the Public Health etc. (Scotland) Act 2008. It is expected that diagnostic microbiology laboratories will support as appropriate and as able with the investigation of Public Health incidents.

Microbiology Reference Laboratories

22. As described in the ECDC TECHNICAL REPORT 'Core functions of microbiology reference laboratories for communicable diseases', June 2010, the functions of the microbiology reference laboratories include provision of reference diagnostics, support with monitoring for developing infectious public health threats and provision of specialist scientific and clinical advice.

Local authorities

23. Under the terms of the Public Health (Scotland) Act 2008, LAs have a statutory duty to 'continue to make provision, or secure that provision is made, for the purpose of protecting public health in its area' and 'co-operate with any relevant person who appears to have an interest in or a function relating to the protection of public health.' Similarly to NHS boards, LAs also have a duty to designate a sufficient number of persons who can exercise functions under the Act.

24. Under the terms of the Act, LAs have powers to:

- undertake public health investigations including powers for investigators to enter premises, ask questions etc;
- serve a notice on the occupiers of any premises in its area if anything in or on such premises is infected, infested or contaminated and in order to prevent the spread of infectious disease, or contamination, disinfection, disinfestation, or decontamination of the premises or things in or on the premises, the destruction of a thing, or other connected operations is necessary;
- to order a range of public health measures in relation to premises and things, including disinfection, disinfestation and decontamination, in order to prevent the spread of infectious disease or contamination.

25. Environmental Health Officers constitute the prime LA resource in health protection. They also have the principal local responsibility for reducing the risks from many environmental hazards. They liaise closely with their NHS colleagues in the investigation and control of outbreaks of infections, often being the enforcement arm of the teams set up to manage these incidents.

N.B. For the COVID-19 response, Local authorities have also been given a role in enforcing Regulations relating to Coronavirus. Under the Health Protection (Coronavirus) (Restrictions) (Scotland) Regulations 2020 local authorities can designate people to enforce requirements relating to the closure of premises and businesses. The Regulations relevant to Coronavirus are subject to change at short notice and so it is always necessary to check the current Regulations in force.

NHS 24

26. NHS 24 is responsible for the delivery of clinical triage, health advice and information services providing the population of Scotland with access to care 24 hours a day, 365 days a year. Within Public Health emergencies, the role of NHS 24 is to:

- triage calls, assess patients' symptoms and refer patients to the most appropriate healthcare professional within an appropriate timescale based on clinical need;
- work in partnership with local health systems provided by NHS boards, NHS staff organisations and local communities through integration with other parts of the NHS - in particular, the GP Out-of-Hours Services provided by NHS boards throughout Scotland, the Scottish Ambulance Service and the Acute Hospitals' Accident and Emergency Departments;
- provide other telephone-based and online services:
  - A Special Helpline service to support public health related alerts that generate a large volume of calls/interest from the general public, either locally or nationally. The helpline should only be used for the acute phase of the emergency (the first 5-7 days) to manage the peak in activity. A line can be set-up within 6 hours, if required, to address an emergency situation. Basic statistics can be generated around numbers of calls to the line and additional reporting can be negotiated depending on the nature of the situation. IMT must be able to provide detailed content and support to the Helpline as required.
  - Delivery of digital content to provide the public with information on **NHS24.scot** and/or **NHSinform.scot** and linking through to source content on relevant websites e.g. WHO, HPS/PHS etc. Utilisation of social media to support and share messages from initiating organisation, providing consistent information to the public.

Scottish Ambulance Service (SAS)

27. The Scottish Ambulance Service (SAS) provides an emergency, unscheduled and scheduled service to people across mainland Scotland and its island communities. As a national Board, they offer a vital link for patients and the wider NHS. Their core function is to respond to patients when they need them, provide clinical treatment and care, and ensure patients are routed quickly and efficiently to the care they need. To deliver this they have established strong links across the NHS and with other key partners, have higher skilled staff than ever before, and have invested in leading-edge technology.

28. SAS operate specialist retrieval services both through the air ambulance and on road vehicles.

29. SAS have three Emergency Medical Dispatch Centres (EMDCs) based in Glasgow, Edinburgh and Inverness which handle in excess of 800,000 calls for help each year from public, GPs, police, NHS 24 and other NHS partners, ranging from life-threatening heart attacks requiring an immediate response to requests from NHS partners to transfer patients between hospitals.

Special Operations Response Teams (SORT)

30. The SAS has developed three Special Operations Response Teams (SORT) in Edinburgh, Glasgow and Aberdeen, comprising 106 specially trained paramedics and ambulance technicians. The teams are trained and equipped to work inside the inner cordon alongside police and fire and rescue services at large scale hazardous incidents. They have all completed an intensive training course that enables them to operate in chemical, biological, radiological, nuclear and explosives (CBRNE) incidents and other accidents that involve hazardous materials. The training includes additional clinical skills, risk assessment, forensic awareness and decontamination procedures. It covers the use of specialist personal protective equipment including self-contained breathing apparatus. Additional training in water rescue techniques means that ambulance staff can play a key role in flooding incidents.

Other agencies

31. Other agencies have statutory responsibilities which overlap with those of NHS boards and LAs and may come into play in the investigation and control of communicable diseases and environmental hazards. These include:

- Food Standards Scotland (FSS);
- Animal and Plant Health Agency (APHA);
- Scottish Water (SW);
- Drinking Water Quality Regulator (DWQR);
- Police Scotland;
- Scottish Fire and Rescue Service (SFRS);
- Health and Safety Executive (HSE);
- Scottish Environment Protection Agency (SEPA);
- PHE Centre for Radiation, Chemicals and the Environment (CRCE);
- Crown Office and Procurator Fiscal Service (COPFS);
- Care Inspectorate;
- Foreign and Commonwealth Office.

32. Public Health England (PHE), The European Centre for Disease Control (ECDC) and the World Health Organization (WHO) also have significant overall responsibilities through PHE acting as the nominated UK body for the ECDC, and the use of the International Health Regulations (IHR).

The responsibilities of these agencies are detailed below.

Food Standards Scotland (FSS)

33. Food Standards Scotland (FSS) is the public sector food body for Scotland. They ensure that information and advice on food safety and standards, nutrition and labelling is independent, consistent, evidence-based and consumer-focused.

34. FSS' primary concern is consumer protection – making sure that food is safe to eat, ensuring consumers know what they are eating and **improving nutrition**. Their vision is to deliver a food and drink environment in Scotland that benefits, protects and is trusted by consumers.

35. FSS develops policies, provides policy advice to others, is a trusted source of advice for consumers and protects consumers through delivery of a robust regulatory and enforcement strategy.

36. FSS was established by the Food (Scotland) Act 2015 as a non-ministerial office, part of the Scottish Administration, alongside, but separate from, the Scottish Government. They are mainly funded by government but also charge fees to recover costs for regulatory functions.

37. FSS uses the following definitions of food hazards:

- **Localised food hazard** - one in which food is not distributed beyond the boundaries of the Food Authority and is NOT deemed to be a serious localised food hazard;
- **Serious localised food hazard** - one in which food is not distributed beyond the boundaries of the Food Authority but which involves *E. coli* O157, other VTEC, *C. botulinum, Salmonella typhii or Salmonella paratyphi* or which the Food Authority considers significant because of, for example, the vulnerability of the population likely to be affected, the numbers involved or any deaths associated with the incident;
- **Non-localised food hazard** - one in which food is distributed beyond the boundaries of the Food Authority.

Serious localised food hazards and non-localised food hazards should be reported to FSS at the earliest opportunity. FSS will handle food related incidents in accordance with the **FSS Incident Management Framework**.

Animal and Plant Health Agency (APHA)

38. The APHA, formerly known as the Animal Health & Veterinary Laboratory Agency, covers England, Wales and Scotland but not Northern Ireland. It is the lead agency responsible for animal health delivery by implementing the policies of Chief Veterinary Officers in Defra and the Devolved Administrations. It exercises the Scottish Government's statutory responsibilities for responding to notifiable diseases in animals including some which can be transmitted between animals and humans (zoonoses), working closely with veterinary and policy colleagues in the Scottish Government Animal Health and Welfare Division and the Scottish Government's Rural Payments and Inspections Directorate (SGRPID).

Drinking Water Quality Regulator (DWQR)

39. The role of DWQR was created in 2002 by the Water Industry (Scotland) Act 2002 to monitor and regulate the quality of public water supplies in Scotland, and to supervise the discharge of LA duties with respect to private water supplies. The work of the DWQR is supported by a small team of technical staff within the Drinking Water Quality Division of the Scottish Government. The DWQR's primary role during incidents is to brief Scottish Ministers and provide advice on technical matters to other stakeholders such as EHOs and CPH(M)s. Following conclusion of the incident, DWQR's focus shifts to investigating the cause of the incident and actions taken to prevent a recurrence, and would include the use of enforcement powers if appropriate.

Scottish Water

40. Scottish Water was created in 2002 to provide water and sewerage services throughout Scotland. Its general responsibilities and powers are set out under the Water Industry (Scotland) Act 2002. Scottish Water has a duty under the Water (Scotland) Act 1980 to provide a supply of wholesome water. The Water Supply (Water Quality) (Scotland) Regulations 2001 define what is meant by wholesome by setting the quality standards for a number of different parameters and also define the monitoring frequency to establish the quality of all supplies.

Police

41. The Police and Fire Reform (Scotland) Act 2012 established a single police force, the Police Service of Scotland (PSoS), also operationally known as Police Scotland, (functional from April 2013), abolishing the existing territorial police forces and their governing bodies. The PSoS has a range of responsibilities which overlap with NHS boards in managing public health incidents. The police will normally coordinate the activities of those responding at and around the scene of a land based sudden impact emergency. They liaise with NHS boards in managing the coordinated provision of essential services to protect the public from exposure to hazards in chemical incidents and other public health emergencies.

Scottish Fire and Rescue Service (SFRS)

42. The Police and Fire Reform (Scotland) Act 2012 established a single fire and rescue service, the Scottish Fire and Rescue Service (SFRS) (functional from April 2013), abolishing the existing fire brigades along with their governing bodies, in April 2013. The main purpose of the SFRS is to work in partnership with communities and with others in the public, private and third sectors, on prevention, protection and response, to improve the safety and wellbeing of people throughout Scotland. The SFRS is also empowered to use their personnel and equipment for purposes other than fire fighting. The management of operations within the inner cordon is normally delegated to the SFRS, including the safety of all personnel working within it. Recovery or rescue from within the inner cordon will, in all but exceptional circumstances, be the responsibility of the SFRS.

43. The SFRS, where appropriate, and working in collaboration with the relevant specialist advisors, will take principal responsibility within the inner cordon for detecting, identifying and monitoring the hazardous substance(s) involved in the incident.

44. In close consultation with other Emergency Services and scientific support, the SFRS will take appropriate steps to identify the hazardous substance(s) involved in the incident (including Detection, Identification and Monitoring (DIM) equipment, and where appropriate, on-site collection of environmental samples for analysis). This relates particularly to matters of safety and operations at the scene and environmental protection. The Scottish Ambulance Service (SAS) will contribute to hazard identification by making an assessment of casualty symptomology in particular regard to NHS Scotland responsibilities.

45. The SFRS will provide the LRP and the local NHS board Health Protection team with relevant information on the nature of the incident including, where possible, the type of hazardous substance(s) involved.

Scottish Environment Protection Agency (SEPA)

46. SEPA is a non-departmental public body, accountable through Scottish Ministers to the Scottish Parliament. Their main role is to protect and improve the environment, by being an environmental regulator, helping business and industry to understand their environmental responsibilities and helping customers to comply with legislation. SEPA protect communities by regulating activities that can cause harmful pollution and by monitoring the quality of Scotland's air, land and water. The regulations they implement also cover the keeping and use, and the accumulation and disposal, of radioactive substances. SEPA are responsible for delivering Scotland's flood warning system, helping to deliver Scotland's Zero Waste Plan and controlling, with the Health and Safety Executive, the risk of major accidents at industrial sites.

Health and Safety Executive (HSE)

47. The HSE is a non-departmental public body with Crown status. The Chair and members of HSE's Board are appointed by the Secretary of State to provide strategic direction for Great Britain's health and safety system. The Board reports to the Secretary of State for Work and Pensions, and to other Secretaries of State.

48. HSE's primary function is to secure the health, safety and welfare of people at work and to protect others including members of the public from risks to health and safety from work activity in accordance with the Health and Safety at Work etc Act 1974 (HSWA) and regulations made under it. HSE does this in partnership with LAs by applying an appropriate and proportionate mix of intervention techniques such as inspection, communication campaigns, advice and support and, where necessary, enforcement action. If a public health incident arises as a result of work activity, HSE could have a role in investigating the matter under HSWA and reporting its findings to the Crown Office and Procurator Fiscal Service (i.e. criminal investigations, e.g. unexplained deaths, infectious disease).

49. Health and safety matters dealt with by HSE have not been devolved to the administrations in Scotland and Wales. Effective working arrangements have been developed, however, between HSE and the devolved administrations to ensure that areas of 'common and close interest' are managed appropriately.

Public Health England Centre for Radiation, Chemical and Environmental Hazards (PHE CRCE)

50. CRCE provides a wide range of radiological protection services to industry, research, the medical sector, Government Departments and the public. These services include the provision of training courses, personal monitoring of occupational exposures, radiological protection advice, radiochemistry, radon assessments, instrument testing, dose assessments and specialised services covering medical and dental radiology. These services are provided across the UK from three CRCE locations: CRCE Chilton, CRCE Scotland (based in Glasgow) and CRCE Leeds. The provision of these services provides a benchmark for the standards of practical radiation protection in the UK and contributes to the restriction of exposure to workers, medical patients and members of the public.

51. Public Health England (PHE) replaced the Health Protection Agency (HPA) in April 2013 and now provides support to the Scottish Government on incidents involving Radiation and Chemical hazards.

Radiation

52. The Health and Social Care Act 2012 and related legislation made statutory provision for PHE to provide advice and support to Scotland for incidents involving radiation. This advice and support is available through PHE's Centre for Radiation, Chemical and Environmental Hazards (CRCE), based in Chilton, Glasgow, and Leeds. The CRCE also provides training courses, related to emergency planning and response in these areas.

53. In the event of a radiation incident in Scotland, PHE would provide advice to the Scottish Government and other responding organisations, including Health Boards, the emergency services, the SEPA, HPS/PHS and the LAs.

54. PHE expert advice would be available to the Scientific and Technical Advice Cell (STAC) and the Recovery Advisory Group (RAG) located at the strategic co-ordination centre.

55. Depending on the incident, PHE staff would be deployed to a number of key locations including:

- The Strategic Co-ordination Centre (SCC);
- The Media Briefing Centre (MBC);
- Scottish Government Resilience Room (SGoRR);
- The scene of the incident or at survivor reception centres or decontamination facilities to assist in the coordination of radiation monitoring and decontamination provisions.
- PHE CRCE is the coordinating body for the National Arrangements for Incidents involving Radioactivity (NAIR)

Chemicals

56. HPS/PHS provides the first line of support to NHS boards and other agencies in Scotland in relation to risk assessment and advice on risk management of chemical exposures and incidents. PHE provides support to HPS/PHS on request for more specialist aspects of public health toxicology and resilience for response to any major level incidents.

57. PHE provides an online information resources for the public and for responding agencies including a **'Compendium of Chemical Hazards'**. This provides information on a wide range of hazardous substances including their physicochemical properties, health effects, and recommended methods of decontamination, and a 'Chemical Action Card' for use by on-call or public health staff faced with a chemical emergency.

National Poisons Information Service (NPIS)

58. The National Poisons Information Service (NPIS) is a national service organised and co-ordinated by PHE that provides expert advice on all aspects of acute and chronic poisoning. The NPIS Scottish Base at the Royal Infirmary of Edinburgh manages TOXBASE, a clinical toxicology database which is specifically designed to provide healthcare professionals with information on clinical management of individuals who have been exposed to chemicals.

The Crown Office and Procurator Fiscal Service (COPFS)

59. The COPFS is responsible for the prosecution of crime in Scotland, and the investigation of sudden, unexpected, accidental, unexplained and suspicious deaths, which occur in Scotland.

60. The dedicated Health and Safety Division is responsible for overseeing the investigation of offences arising specifically from contraventions of the Health and Safety at Work etc Act 1974. Where such allegations of offences are received, COPFS is committed to ensuring that they are investigated thoroughly, sensitively, and prosecuted appropriately, where there is sufficient evidence and it is in the public interest to do so.

61. The principal aims of death investigation are to:

- minimise the risk of undetected homicide or other crimes;
- determine whether a death has resulted from the criminal actions of another and to take appropriate action in relation to such deaths;
- eradicate dangers to health and life in pursuance of the public interest;
- allay public anxiety;
- preserve evidence;
- determine whether a Fatal Accident Inquiry (FAI) or any other form of Public Inquiry is to be held;
- ensure that the nearest relative of the deceased is kept advised of the progress of the investigation;
- ensure that full and accurate statistics are compiled.

The Care Inspectorate

62. The Care Inspectorate, formally known as Social Care and Social Work Improvement Scotland (SCSWIS), is an independent public body set up following the Public Services Reform (Scotland) Act 2010 to scrutinise and regulate social care and social work services across Scotland. The Care Inspectorate replaced the Care Commission, the Social Work Inspection Agency (SWIA) and child protection unit of Her Majesty Inspectorate for Education (HMIe) in these functions.

63. The Care Inspectorate's statutory duties include the registration, inspection, complaint investigation and enforcement in relation to social care services; inspection of LA social work services; joint inspection of integrated health and social care services, scrutiny of and improvement in strategic commissioning, and is also responsible for the scrutiny of children service as set out in the Public Services Reform (Scotland) Act 2010. The Care Inspectorate has general duty of furthering improvement in the quality of social services. Scrutiny by The Care Inspectorate should be proportionate and risk based. In carrying out its statutory functions, The Care Inspectorate will take into account the National Care Standards, which are developed and published by the Scottish Government, and will set out what people using care services can expect from their service provider.

64. The Care Inspectorate will advise care service providers which incidents need to be notified or reported to The Care Inspectorate, for example, outbreaks of any infectious diseases, deaths of people using the service and other serious incidents. This information will be used by The Care Inspectorate to inform risk-based and intelligence-led scrutiny of care services.

Regional Resilience Partnership (RRP)

65. In Scotland, following the principle of subsidiarity, the response to emergencies that require multi-agency management is achieved by convening Resilience Partnership(s) at the most suitable level and attended by appropriate representatives to deal with the incident. Ordinarily, Resilience Partnerships are convened at local level i.e. 'Local Resilience Partnership (LRP)' but may be broadened to contend with the same incident impacting across a wider area i.e. 'Regional Resilience Partnership (RRP).' There are some emergencies such as Public Health or Animal Health indents where specific structures are used requiring the establishment of IMTs or LDCCs (Local Disease Control Centre) which would be set up initially to respond to the incident. These should work in tandem with the RPs as and when they are set up. Emergencies will have significant health implications (e.g. accidents or hostile acts resulting in trauma) and some of these will be specifically relevant to public health (e.g. contamination hazards following a major industrial accident, deliberate release of pathogens).

66. The Civil Contingencies Act 2004 (CCA) and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Amendment Regulations Scotland 2005 and 2013 provided the context for the organisation and operation of Resilience Partnerships. The legislation defines two categories of responders: Category 1 responders are the organisations that provide vital services in an emergency, including the emergency services, LAs, territorial NHS boards and the Scottish Environment Protection Agency (SEPA); Category 2 responders are organisations that provide infrastructure services, including NHS National Services Scotland, the utilities, transport operators, telecommunication companies and the Health and Safety Executive.

67. Legislation places the following duties on Category 1 responders to:

- co-operate with other Category 1 & 2 local responders;
- share information with other local Category 1 & 2 responders;
- assess the risk of emergencies occurring;
- maintain business continuity plans;
- maintain emergency plans;
- maintain arrangements to make information available for the public before, during, and in recovering from, an emergency; and
- provide advice and assistance on business continuity management for businesses and voluntary organisations (LAs only).

68. Regional Resilience Partnerships (RRPs) are required to meet twice per year to fulfil planning and preparation responsibilities and comprise representatives from all Category 1 agencies. Although the Partnership meeting is not a statutory body in its own right, and does not have powers to direct members, they provide a strategic forum to allow members' duties under the CCA to be carried out, including information sharing, multi-agency resilience planning as well as coordination of the emergency response. RRPs therefore form the focal point for local and regional resilience building.

69. Each member of the RRP should be prepared to lead the multi-agency response according to the nature of an emergency, although most scenarios indicate a Police lead. Any RRP/LRP member can activate the RP and, during a health emergency of sufficient severity, where a multi-agency response was required, the RRP could be activated by the NHS board representative.

70. RPs often require expert advice on a range of public health, environmental, scientific and technical issues, in order to deal effectively with the immediate and longer term consequences of an emergency. This advice is normally provided and co-ordinated by a Scientific and Technical Advice Cell (STAC). Often this will relate to issues of public health, in which case the NHS board should provide a chairperson for the STAC, normally the Director of Public Health, or their deputy.

71. The STAC operates as an advisory group and is not an operational group. It may link with other structures at Scottish and UK national levels as well as advising local area strategic and tactical coordinating groups. Communication with national and local strategic levels will usually be through the STAC chair, facilitated via the Resilience Partnerships.

72. Where there is a major or widespread emergency, this can lead to the establishment of multiple Resilience Partnerships and their associated STACs. However, it is not practical for national agencies (SEPA, HPS/PHS, FSS, HSE, etc) to support multiple STACs in such a multiple location incident, and so a primary STAC will be designated by agreement between Resilience Partnership chairs to coordinate and disseminate advice from the national agencies to the other established STACs, referred to as secondary STACs.

Annex C: Healthcare Infection Incident Assessment Tool (HIIAT)

The Healthcare Infection Incident Assessment Tool (HIIAT) should be used by the Infection Prevention and Control Team (IPCT) or Health Protection Team (HPT) to assess every healthcare infection incident i.e. all outbreaks and incidents (including decontamination incidents or near misses) in any healthcare setting (that is, the NHS, independent contractors providing NHS services and private providers of healthcare).

The HIIAT has two parts/functions:

Part 1: Assesses impact of a healthcare infection incident/outbreak on patients, services and public health.

The HIIAT should:

- be utilised to assess the initial impact and monitor any ongoing impact (escalating and de-escalating the incident/outbreak until declared closed).
- remain assessed **'Amber'** or **'Red'** only whilst there is ongoing risk of exposure, new cases, or until all exposed cases have been informed.

An individual member of the IPCT or HPT may undertake the initial assessment. If a PAG/IMT is established then further assessments will be led by the chair of the PAG/IMT.

Part 1: Assessment.

Impact	Severity of illness	Services	Risk of transmission	Public Anxiety
Minor	Patients require only minor clinical interventional support as a consequence of the incident. There is no associated mortality as a direct result of this incident.	No or minor impact on services.	Minor implications for Public Health. Minor risk or no evidence of cross transmission or exposure	No or minor public anxiety is anticipated. No, or minimal, media interest: no press statement.
Moderate	Patients require moderate clinical interventional support as a consequence of the incident. There is no associated mortality as a direct result of this incident.	Moderate impact on services e.g. multiple wards closed or ITU closed as a consequence of the control measures	Moderate implications for Public Health. Moderate risk or evidence of cross transmission or ongoing exposure	Moderate public anxiety is anticipated. Media interest expected: prepare press statement
Major	**Patients require major clinical interventional support as a consequence of the incident and/ or** **Severe/life threatening /rare infection and/or** **there is associated mortality***	**Major impact on services e.g. hospital closure(s) for any period of time as a consequence of the control measures**	**Major implications to Public Health or Significant risk of cross transmission, of a severe/life threatening / rare infection or significant ongoing exposure**	**Major public anxiety anticipated.** **Significant media interest: prepare press statement**

Calculate the Impact:

All Minor = **GREEN**; 3 Minor and 1 Moderate = **GREEN**;

No major and 2-4 Moderate = **AMBER**;

Any Major = **RED**.

Part 2: Supports a single channel of infection incident/outbreak assessment and information reporting both internally within a NHS Board area and externally to Health Protection Scotland (HPS) and Scottish Government Health and Social Care Department (SGHSCD).

Part 2: Communication.

GREEN	AMBER	RED
Complete mandatory HIIAT Green reporting template and attach any prepared press statements. **http://www.nipcm.hps.scot.nhs.uk/appendices/appendix-15-mandatory-healthcare-infection-incident-and-outbreak-reporting-template-hiiort** A HIIORT is only required when HPS support is requested Follow local governance procedures for assessing and reporting.	Report to HPS and complete HIIORT within 24 hours for onward reporting to SGHSCD. NHS board will be cited. Press statement (holding or release) must be prepared and sent to HPS. Request HPS support as required. Follow local governance procedures for assessing and reporting. Review and report HIIAT assessment as agreed between IMT and HPS (**at least weekly**) The HIIAT should remain Amber only whilst there is ongoing risk of exposure to new cases or until all exposed cases have been informed	Report to HPS and complete HIIORT within 24 hours for onward reporting to SGHSCD. NHS board will be cited. Press statement (holding or release) must be prepared and sent to HPS Request HPS support as required. Follow local governance procedures for assessing and reporting. Review and report HIIAT daily or as agreed between HPS and IMT (**a minimum of weekly**). The HIIAT should remain Red only whilst there is significant ongoing risk of exposure to new cases or until all exposed cases have been informed.

The final decision to release a press statement irrespective of HIIAT assessment (colour) is the responsibility of the IMT chair.

*** Only HAI deaths which pose an acute and serious public health risk must be reported to the Procurator Fiscal (SGHD/CMO(2014)27).**

The full manual is available at **www.nipcm.hps.scot.nhs.uk/**.

Annex D: Other related guidance and further information

Guidance that may be useful in the management of public health incidents may be published on a variety of websites but links to the key sources are provides below.

Scottish Health Protection Information Resource (password protected)

Scottish Health Protection Information Resource (SHPIR) is intended to provide a distillation of the most current and relevant health protection advice and guidance material available for use in dealing with Health Protection issues and enquiries encountered both in daily practice and in an out-of-hours setting for Public Health/Health Protection staff involved in on-call work. The essential purpose of SHPIR is to provide a reliable and quality assured resource of first resort, for Health Protection staff in Scotland, particularly when rapid access is required to key documentation, advice, guidance and other information on Health Protection topics.

http://www.shpir.hps.scot.nhs.uk

Scottish Health Protection Network

Please refer to **Annex F**.

Incident Learning

Please refer to **paragraph 37**.

Click 'Incident Learning' on the SHPIR homepage to access the repository **http://www.shpir.hps.scot.nhs.uk**.

Scottish Government contact (non HAI incidents)

Office Hours: Senior Medical Officer on call **0131 244 2804**.

Out of Hours: on call mobile number **07824 087787**.

Healthcare Infection Incidents and Outbreaks

Please refer to Chapter 3 of the National Infection Prevention and Control Manual (NIPCM) **http://www.nipcm.hps.scot.nhs.uk/**.

The purpose of Chapter 3 is to support the early recognition of potential infection related issues, to minimise the risk of cross-transmission of infectious agents within health and other care settings; and outline the incident management process

Civil Contingencies

The Civil Contingencies Act

Preparing Scotland

Food Standards Scotland

Food (Scotland) Act 2015

A Strategy for reducing foodborne illness in Scotland

FSS incident Management Framework (2018)

Public Bodies Act 2014

http://www.legislation.gov.uk/asp/2014/9/contents/enacted

NHS (Scotland) Act 1978

http://www.legislation.gov.uk/ukpga/1978/29/contents

Public Health (Scotland) Act 2008

http://www.legislation.gov.uk/asp/2008/5/contents

Communicating with the Public about Health Risks – HPN document

https://www.hps.scot.nhs.uk/web-resources-container/communicating-with-the-public-about-health-risks

Annex E: Sharing Personal/Patient Information in the context of the Public Health Incident Response

1. Building up the overall picture of a public health incident normally requires collated information from individuals. Personal health information is integral to effective investigation of the cause and development of effective control measures. Personal health information is recognised as particularly sensitive within the Data Protection Act.

2. In an incident with significant risk to the wider population, there remains a duty both to protect and minimise the personal health information used and also a duty to share information with other agencies if required to determine the cause and enable effective control of the incident. Police officers may be members of an IMT and police action may be essential to control the incident and reduce harm to the wider population. Some Resilience Partnerships also have specific information sharing agreements. The Data Protection Act and other guidance can enable the sharing of personal health information when there is significant risk to the broader public.

3. There may therefore be duties in any incident to both protect and to share personal health information. Decisions should be guided by the Data Protection Act principles and the guidance highlighted in paragraphs 2 and 3. Those leading the IMT should be able to justify decisions made and to record the reasons for such decisions.

4. The IMT chair must base the final decision on all the available information and balance the duty to share data with the duty to keep personal data confidential.

5. The Data Protection Act and the 'Caldicott Rules' provide a clear framework within which we are all required to work. More specifically, the following material is available in relation to information sharing in the context of public health incidents:

    - Preparing Scotland (2016) provides guidance on the need to share information generally. **http://www.readyscotland.org/ready-government/preparing-scotland** / **Freedom of Information (Scotland) Act 2002**.
    - CEL (13) 2008 Information Sharing between NHS Scotland and the Police describes the protocols to be followed by the NHS and the Police Service on the sharing of information between the two services and is viewable at: (**http://www.sehd.scot.nhs.uk/mels/CEL2008_13.pdf**).
    - CMO letter of 28 January 2010 on the OUTBREAK OF ANTHRAX IN HEROIN INJECTING DRUG USERS - Confidentiality and Data Sharing Requirements reminds NHS boards of the existing policy agreements on information sharing with the police and the broader guidance on duties related to sharing and protecting personal health information: (**https://www.sehd.scot.nhs.uk/cmo/CMO(2010)03.pdf**).

- Memorandum of Understanding for Public Health Intelligence (PHI) processing of personally identifiable information (PII) provided by microbiology laboratories, NHS Board Health Protection Teams and Infection Prevention and Control Teams, approved in October 2016.
- CMO letter of 17 November 2016 on sharing of personal Sensitive Information (medical / clinical records) for Court proceedings: (**http://www.sehd.scot.nhs.uk/cmo/CMO(2016)20.pdf**).

6. The General Medical Council guidance 'Confidentiality: disclosing information about serious communicable diseases' (September 2009) provides guidance to doctors responding to public health incidents. It is important to read this guidance as a whole but the following are important elements of the guidance:

   - 'Personal information may therefore be disclosed in the public interest without the patients' consent and in exceptional cases where patients have withheld consent if the benefits to an individual or to society as a whole outweigh both the public and patient's interest in keeping the information confidential.'
   - 'Disclosure of personal information about a patient without consent may be justified in the public interest if failure to disclose may expose others to risk of death or serious harm.'
   - 'You should pass information about serious communicable diseases to the relevant authorities for the purpose of communicable disease control and surveillance. You should use anonymised or coded information if practicable and as long as it will serve the purpose.'

   The Nursing and Midwifery Council (NMC) provides guidance for nurses in the NMC.

   Standards of conduct, performance and ethics for nurses and midwives (2008).

Annex F: Planned activities of the SHPN in relation to the implementation of the Framework for the Management of Public Health Incidents

Introduction

The SHPN was conceived to improve health protection in Scotland, by bringing together those working in this field to share good practice in a network. As such, the SHPN is the appropriate platform to support further development of a number of actions suggested in the Management of Public Health Incidents guidance.

Proposal

The SHPN will support the implementation of the key principles of Incident Management that relate to education, promotion of best practice and curatorship of the reports (**paragraph 37**).

The SHPN is proposing to take forward the above by:

1. Making sure an appropriate framework to support effective incident management is in place, monitored and regularly reviewed by:
    - developing the system to produce IMT reports as indicated in the Management of Public Health Incidents guidance so that NHS boards and other agencies agree on what is required to report and is of the highest quality possible
    - making sure there is an appropriate and fit-for-purpose system to log, store and share reports across Scotland;
2. Supporting the work of the SHPN Workforce Education Development Group in relation to incident management workforce education development relating;
3. Making sure there are regular forums to help facilitate sharing and learning from experience.

Annex G: Draft Agenda for IMT

1. Introduction (Reminder of confidentiality and need for accurate records)
2. Declarations of conflicts or vested interests
3. Items not on the agenda
4. Minute of last meeting (if applicable) including review of actions agreed
5. Incident/Outbreak Resume/Update:
    - General situation statement;
    - Patient report;
    - Microbiology/Toxicology report;
    - Environmental Health report;
    - Other relevant reports.
6. Risk Assessment:
    - **Severity:** Dynamically assessed risk of the degree of foreseeable harm that may be caused to individuals or to the population and possible issues with recovery.
    - **Confidence:** Knowledge, derived from all sources of information that confirm the existence and nature of the threat and the routes by which it can affect the population.
    - **Spread:** The size of the actual and potentially affected population.
    - **Interventions:** The availability and feasibility of population interventions to alter the course and influence the outcome of the event.
    - **Context:** The broad environment, including media interest, public concern and attitudes, expectations, pressures, strength of professional knowledge and external factors including political decisions.
7. Risk Management/Control Measures:
    - Patients;
    - General;
    - Public Health;
8. Care of Patients - Hospital and Community

9. Further Investigation:
    - Epidemiological;
    - Environmental;
    - Microbiological / Toxicological.
10. Risk Communication:
    - Agree common data set;
    - Advice to public (letters, printed materials, media, social networking, websites, helplines etc);
    - Advice to professionals (GPs, clinical staff, other NHS boards, partners);
    - Media (print, radio, TV, websites, social networking sites);
    - Elected members;
    - Inform other authorities e.g. Procurator Fiscal.
11. Review (standing agenda items):
    - Appropriate membership;
    - Resourcing;
    - Framework (incident management structure); consider need to seek support through LRP/RRP / other personnel;
    - Obtain contact details of all key personnel within and outwith hours;
    - Assess effectiveness of action;
    - Other resilience management groups formed or required;
    - Need to escalate (refer to **Table 1**).
12. Future activity (final meeting only - collation of documentation, possibility of future inquiries)
13. AOCB
14. Action list with timescale and allocated responsibility
15. Date and time of next meeting

Annex H: IMT Decision Log

Decision log
Time:
Date:
Name:
Recorded by:
Problem:
Options: **A:** **B:** **C:** **D:**
Outcome / actions:
Rationale:
Signature:

Annex I: Incident evaluation and reporting

Incident Preparedness

- Incident plans have been reviewed annually by NHS boards and their partners, especially LAs.
- Incident plans dealing with a major exposure to hazard e.g. food, waterborne, HAI, chemical and radiological incidents have been tested within a 3-year cycle i.e. utilised in an actual major outbreak or tested in an exercise. Such testing should include dealing with the deliberate release of hazardous agents
- Incident plans include up to date contacts for liaison out of hours, available expertise and possible IMT members - as related to incident, whether full members, co-opted or advisory level.
- Incident plans include an aide-memoir of the outline of the role of IMTs.
- The NHS board has documented systems and agreed criteria for being notified of and detecting potential or actual incidents.

Incident management

- In the event of an incident, the NHS board has undertaken an initial risk assessment and recorded:
  - whether there is a significant risk to public health;
  - scale of problem;
  - severity of problem;
  - possible cause of incident/outbreak;
  - initial actions to be taken and why.
- The IMT has kept records of decisions made about incident control measures and documented:
  - whether these measures have been applied; and
  - if not, the reason why;
  - if yes, by whom, when and where they have been carried out;
  - any further action arising from above.
- The IMT has reviewed the impact of control measures at each IMT meeting and documented its view on this.
- The IMT has reviewed the risk to public health arising from the incident and the likely overall impact of control measures on it.

- The IMT Chair has ensured that there is a check maintained on the above aspects of incident management and that this is recorded in the IMT minutes.
- The IMT Chair has regularly reported on the incident to relevant senior management of the LA and NHS board.
- The IMT has agreed a single press spokesperson and press officer who have regularly reported to the IMT on the tone and content of communications and responses to them.

After the incident

- The IMT Chair has conducted a hot debrief immediately at the conclusion of the response phase.
- The IMT Chair has arranged for a full debrief to be carried out and submitted the final IMT report to the NHS board or NHS board committee
- The IMT Chair has forwarded the report to SHPN and relevant organisations with responsibility for taking forward its recommendations.

Annex J: SBAR Report

A tool to assist NHS boards and HPS/PHS report incidents not requiring Full Incident Report.

Issue	Statement
Situation • Causative agent • When and where incident detected and ended • Number of people involved • Organisation • Impact of health	
Background • How recognised • Context to Incident • Guidance	
Assessment • Descriptive epidemiology • Exposures and sources • Risks to public health • Control Measures • Communications	
Recommendation • What, who and when: • Prevention of similar events • What went well • What needs improved	
Name:	**Designation:**
Email:	**Tel:**

Annex K: Hot debriefing template

The Scottish Government 'Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams for the Management of Public Health Incidents', specifically highlights the need to learn from experience. A central repository for Incident Management Team (IMT), Problem Assessment Group (PAG) and Situation, Background, Assessment and Recommendation (SBAR) Reports and a mechanism to capture and share learning nationally will be established through the Scottish Health Protection Network (SHPN). New reports will be collated as they are published to populate the repository.

This document should be completed by IMTs chair as soon as possible following the end of an incident in the interim before the full IMT report is produced. This is to capture initial lessons learnt immediately (a 'hot debrief'), recognising that some IMT reports take months/years to be published.

Incident reference
Please provide a reference/title for this incident (e.g. Legionnaires outbreak in Lothian, 2012; or Outbreak of E. coli O157, Rose Lodge nursery, Aboyne)
Details of incident
Please provide a brief summary of incident:
What went well?
Please list aspects of the incident that were managed well.
What did not go well?
Please list aspects of the incident that were not managed well.
Lessons Learned
Please provide details of any learning or recommendations for national consideration:

IMT lead details	
Name:	Email:
Job Title:	Address:
Contact number:	Contact number (mobile):
Date:	Signed:

Completed templates to be returned to: phs.shpn-pmt-submissions@nhs.net

Annex L: IMT Report template

The following is a suggested template for an IMT Report. However, other report formats are also acceptable.

1. Introduction
    - Brief summary of the incident and setting the scene.
2. Background
    - Information on features of cases, incubation period, dose, source and modes of exposure, diagnosis and treatment, and if relevant, prevalence of the relevant disease locally, nationally and globally.
3. Investigation
4. Epidemiological investigation and results
    - Descriptive: description of initial cases, case definition and hypothesis generation, enhanced surveillance
    - Analytical: description of any case control and/or cohort studies
5. Environmental investigation and results
    - Details of investigation/detection of main routes of exposure, sources of these, if possible levels of exposure and circumstances leading to exposure
6. Microbiological/Toxicological investigations and results
    - Clinical, food/water and environmental sampling undertaken
7. Risk Management
8. Prevention of further exposure to hazardous agent including details of relevant enforcement/regulatory action
9. Care of cases
10. Risk Communication
11. Discussion and conclusions
12. Lessons identified and recommendations
13. Appendices (if necessary)

Full Incident Management Team Report Proposed Standardised Dataset

*A suitable method will be developed for reporting this proposed dataset. It is expected that when completed, it will be attached to a suitable narrative on the incident. The dataset and methods of reporting will be piloted and suitably revised. There will be a final consultation on reporting method. It is intended that the narratives and completed datasets will be held by the SHPN to facilitate on-going work to help prevent similar incidents and improving practice in incident management.

1. Incident Management

Key fields	Details (to complete)
Incident Management Team (IMT) lead	Name and job title, Board
Agencies represented on IMT:	
Date of first IMT meeting:	
Date of last IMT meeting:	
Number of IMT meetings held:	
Guidance used by IMT:	
Please record any other points on IMT:	

2. Incident Detection and Initial response

Key fields	Details (to complete)
Date of first notification of case(s)	
Date incident detected	
Description of how the incident was detected	
Description of the initial risk assessment response and communications:	

Key fields	Details (to complete)
Please note any other points on Incident detection and initial response	

3. Type of Incident

Key fields	Details (to complete)
Causative Agent*	
Main presenting illness	
Main Primary Exposure(s)**	Food Water Air General Environment (i.e. when a hazard, usually chemical or radioactive, is widely dispersed e.g. in soil, water, in living matter and it is difficult to discern a specific exposure pathway). Person to person type e.g. sexual, respiratory, contact) Zoonotic Other (please describe)
Source(s) of exposure***	
Duration Of Incident	From: To:
Please note any other points on the type of incident	

*Causative Agent refers to the hazard (biological, chemical or radiological) which has been absorbed into and/or entered the cases and is prime cause of their illness.

**Exposure is used to describe the pathway through which a person/group/population has come into contact with the hazard which is the of disease or health state of interest. The main types of exposure are: food, water, air, person to person, zoonotic and general environmental. Exposure can be primary i.e. the original exposure leading to the hazard entering into or being absorbed by the index case or secondary i.e. consequential further exposures which are related to but may be different to the original

***Source of exposure relates to where the exposure has originated from.

4. Investigation

A. Epidemiological Investigation

Key fields	Details (to complete)		
Type(s) of Epidemiological investigation			
Final Case Definitions	Confirmed Probable Possible		
Number of cases by definition and sex			
Number of cases by definition and age			
Clinical status	Admitted:	ITU:	Deaths:
First and last date of onset by definition Epidemic curve appended?	Yes/No		
Areas of incident occurrence Mappings of cases appended?	Yes/No		
Primary Exposures investigated	Food Water Air General Environment Person to person(type) Zoonotic Other (please describe)		
Source(s) of exposures			
Secondary exposures investigated			
Other risk factors for illness			
Underlying medical conditions			
Further epidemiological investigations Report appended?	Yes/No		

Key fields	Details (to complete)
Key findings:	
Main conclusions	
Please note any further points on the epidemiological investigation	

B. Human Laboratory Investigation

Key fields	Details (to complete)
Diagnostic laboratories involved	
Reference laboratory involved	
Sampling and testing strategy Report appended	 Yes/No
Causative Agent	
Strain/Genotype of micro-organism	
Dates of first and last positive results in confirmed cases by laboratory	
Further microbiological investigations Report appended	 Yes/No
Key findings:	
Main conclusions	
Please note any further points on the laboratory investigation	

C. Environmental Investigation

Key fields	Details (to complete)
Agency leading investigation	
Other agencies	
Laboratories involved	
Investigation Strategy (including sampling & testing) Report appended	 Yes/No
Main exposure(s)	
Source and vehicle of exposure(s)	
Further epidemiological investigations Report appended?	 Yes/No
Key findings:	
Main conclusions	
Please note any further points on the environmental investigation	

D. Overall Summary from Investigation

Key fields	Details (to complete)
Key findings:	
Main conclusions	

5. Control Measures

Key fields	Details (to complete)
Objectives	

A. Prevention of primary exposure

Exposure	Measure	Onset and duration	Agency responsible

B. Prevention of secondary and further exposure(s)

Exposure	Measure	Onset and duration	Agency responsible

C. Prevention of ill health in those exposed

Exposure	Measure	Onset and duration	Agency responsible

D. Treatment and care of cases

Services	Measure	Onset and duration	Agency responsible
Primary care			
Secondary care			
Other			
Criteria for cessation of main control measures			

E. Summary

Key fields	Details (to complete)
Enforcement of compliance issues	
Evaluation of impact and achievement of objectives	
Main conclusions	

6. Communications

A. Strategy

Key fields	Details (to complete)
Objectives	
Audience(s)	
Key content: Assessed risk to health	
Key content: Advice on risk reduction	
Main spokesperson(s)	
Method of assessing impact	

B. Communications made - service

Key fields	Details (to complete)
Public Health (Scotland)	
Public Health (UK & Europe)	
Scottish Government	
General Practice	
NHS 24	
Out of hours & A&E	
Local authorities	
Secondary Care	
Others	

C. Communications made - public

Key fields	Details (to complete)
Cases and Contacts	
Affected communities	
Local Media	
National Media	
Helpline	
Publicity and specific health information	
Others	

D. Summary

Key fields	Details (to complete)
Evaluation of impact and achievement of objectives	
Main conclusions	

7. Antecedants of Outbreak

Key fields	Details (to complete)
What occurred to precipitate the outbreak?	
Were there any system failures which contributed to this?	
Were there any organisational or cultural issues contributing to these?	
What is the likelihood of a similar event occurring?	
What needs to be done to prevent this?	

8. Learning from Experience

A. Learning Points

Key fields	Details (to complete)
Organisational Arrangements	What worked well?
	What could be improved?
Investigation	What worked well?
	What could be improved?
Control measures	What worked well?
	What could be improved?
Communications	What worked well?
	What could be improved?
Please identify any updates to guidance that should be considered as a result of the incident	
Please identify any research that should be considered as a result of the incident	
Please identify any Workforce/ Education/Development priorities to arise as a result of the incident	

B. Recommended Actions Arising from the Incident

Recommended Actions should be set out as objectives using the `SMART` approach i.e. Specific, measurable, achievable, realistic, timed:

- **Specific** – Be precise about the objective to be achieved.
- **Measurable** – Quantify the extent of the action.
- **Achievable** – Actions should not be an excessive burden on owners.
- **Realistic** – Sufficient resources should be available to complete actions.
- **Timed** – State the expected completion date.

Action No.	Description of action	Action owner	Complete by date

9. Report Approval

For completion by the Chair of the Incident Management Team	
Name:	**Designation:**
Signature:	**Date:**
Email:	**Tel:**

Annex M: Membership of Working Group for 2017 review

Name	Remit on Group	Role /Job Title	Organisation
Henry Prempeh	Chair	Consultant in Public Health Medicine	NHS Forth Valley
Alex Sanchez-Vivar	SHPN-Guidance - Healthcare Scientist	Senior Healthcare Scientist	HPS
Alison Potts	Representative – NSS PHI (HPS)	Epidemiologist	HPS
Allan Moffat	Representative – Scottish Government Response & Communication, Resilience Division	Unit Head, Response & Communication	Scottish Government
Bruce Farquharson	East of Scotland Regional Resilience Partnership	Group Manager	Scottish Fire and Rescue Service
Cheryl Gibbons	SHPN-Guidance - Healthcare Scientist	Healthcare Scientist	HPS
Clive Murray	Representative – North of Scotland Regional Resilience Partnership		Police Scotland
Colin Ramsay	Representative – NSS PHI (HPS)	Consultant Epidemiologist	HPS
Darren Ross	Group Administration	Service Delivery Manager	HPS
Fiona Browning	Representative – Health Protection Nurse Specialists	Health Protection Nurse Specialist	NHS Grampian
Gareth Brown	Representative – Scottish Government Health Protection Team	Head of Health Protection	Scottish Government
Gillian Hawkins	Representative – NSS PHI (HPS)	Consultant in Health Protection	HPS
Helen Ewing	Representative – NSS PHI (HPS)	Resilience Manager	HPS
Joe Graham	Representative – West of Scotland Regional Resilience Partnership		Police Scotland
Josephine Pravinkumar	Representative – SHPN Coordination Group	Consultant in Public Health Medicine	NHS Lanarkshire

Name	Remit on Group	Role /Job Title	Organisation
Lindsey Meechan	Group Secretariat	Administrative Support Officer	HPS
Lisa Ritchie	Representative – NSS PHI (HPS)	Nurse Consultant Infection Control	HPS
Martin McNab	Representative - Society of Chief Officers of Environmental Health in Scotland	Health Protection Manager	Inverclyde Council
Michael Healy	Representative – Health Resilience Unit	Head of Health Resilience Unit	Scottish Government
Nicola Rowan	Scottish Health Protection Network Manager	Service Manager	HPS
Syed Ahmed	Chair of the Health Protection Coordination Group	Clinical Director	HPS

Annex N: 2020 interim review

The 2020 interim update was undertaken by Colin Ramsay (deputy Clinical Director, HPS/PHS) with contributions from Andrew Reilly/SMO with Scottish Government Health Protection Directorate and other colleagues.

Healthcare Associated Infection Reporting Template
For Assurance

Executive Sponsor: Prof Angela Wallace, Executive Director IPC.
Authors: Mrs Sandra Devine, Interim Infection Control Manager & Professor Angela Wallace, Executive Director Infection Prevention and Control.

Executive Summary
The Healthcare Associated Infection Reporting Template (HAIRT) is a mandatory reporting tool for the Board to have oversight of the HAI targets (*Staphylococcus aureus* bacteraemias (SAB), *Clostridioides difficile* infections (CDI), *E. coli* bacteraemias(ECB), incidents and outbreaks and all other HAI activities across NHS Greater Glasgow & Clyde (NHSGGC).

Recommendation:
The NHS Board is asked to:

- Note the HAIRT report
- Note the performance in respect of the Annual Operational Plan (AOP) Standards for SAB, CDI & ECB
- Note the detailed activity in support of the prevention and control of Healthcare Associated Infection
- Note contribution of IPCT to GGC recovery plans.

Key Issues to be considered:

- New AOP targets set for 2019-2022 for SAB, CDI and ECB are now presented in this report.
- SAB remain within normal control limits.
- CDI remain within normal control limits.
- ECB remain within normal control limits.
- There were two deaths where *C.difficile* was recorded on a death certificate and no deaths for MRSA recorded on a death certification.
- Surgical Site Infection (SSI) surveillance has paused from April to date as part of the COVID-19 surveillance response.
- Bacteraemia enhanced surveillance is now using light methodology as part of the COVID-19 surveillance response (light methodology involves viewing all the clinical information available from patient management systems rather than from clinical teams within the ward).
- The HAIRT report continues to be reviewed and consultation process to develop the presentation of HAI performance.
- COVID-19 activity has significantly reduced in June 2020. The IPCT continue to review every case and are currently assisting with 'Track and Trace' as directed by the Public Health Protection Unit

Financial Implications
None

Workforce Implications
None

Risk Assessment
Work is ongoing to continually reduce all reducible SAB, CDI and ECB across NHSGGC.

Relevance to Strategic Priorities
Annual Operating Plan (AOP) Standards in respect of SAB, CDI & ECB

- The HAIRT report is currently under review

Equality Declaration
The author can confirm that due regard has been given to the Equality Act 2010 and compliance with the three aims of the Equality Duty as part of the decision making process. Further to an evaluation it is noted that:

- The paper is not relevant to Equality and Diversity

Consultation Process
Infection Prevention and Control Team (IPCT) & Board Infection Control Committee

Healthcare Associated Infection Summary – April/May 2020

The HAIRT Report is the national mandatory reporting tool and is presented bi-monthly to the NHS Board. This is a requirement by the Scottish Government HAI Task Force and informs NHSGGC of activity and performance against Healthcare Associated Infection Standards and performance measures. This section of the report focuses on NHSGGC Board-wide prevention and control activity and actions.

SUMMARY FOR THIS MONTH

- Boards Cleaning compliance is 95% and Estates compliance 97% for this period.
- SSI surveillance is temporarily paused. The IPCT are continuing background monitoring via ICNet to identify any positive microbiology in surveillance procedure categories and return this information to clinical teams.
- SAB - HCAI standard aim is 70 cases or less per quarter by 2022. NHSGGC were only 5 cases above aim for the period January-March 2020.
- Responding to COVID-19 continues to be a priority for the IPCT.
- The IPCT are supporting the organisation to inform recovery plans post COVID-19.
- The IPCT continue to provide assurance to HPS in accordance with the National Support Framework in relation to PICU. All required evidence has been submitted by GGC and we await feedback from HPS.
- Close communication with Health Protection Scotland (HPS) and other external organisations has been ongoing throughout the pandemic, with contributions from several members of the IPCT to National Groups using their experience of COVID-19 in the context of frontline services to shape national policy.
- GGC IPCT provided support to the Louisa Jordan Hospital in terms of access to GGC IPCT Standard Operating Procedures (SOPs), education materials and access to the IPCT patient management system (ICNET).

All of the above actions continue to support the organisations Safe and Effective Care Objective.

Performance at a glance

	April	May	Bi-Monthly RAG status	RAG status toward AOP target (based on trajectory to March 2022)
Staphylococcus aureus bacteraemia (SAB)	**25**	**31**		↓
Clostridioides difficile infection (CDI)	**19**	**22**		↑
Escherichia coli Bacteraemia (ECB)	**56**	**66**		↓
Hospital acquired IV access device associated SAB	**n/a**	**8**		*Data not available
Hand Hygiene	**99%**	**99%**		
National Cleaning compliance (Board wide)	**95%**	**96%**		
National Estates compliance (Board wide)	**97%**	**97%**		
Surgical Site Infections (SSIS) mandatory procedures	**n/a**	**n/a**	n/a	

Key infection control challenges (relating to performance)

Staphylococcus aureus bacteraemia

- There were 6 hospital acquired SAB in April and 19 in May

Clostridioides difficile infection

- There were 8 hospital acquired CDI in April and 1 case in May

Escherichia coli bacteraemia

- There were 12 hospital acquired ECB in April and 18 in May

SAB, CDI and ECB case numbers remain within control limits this month

Surgical site infection surveillance

- Surveillance paused (CNO letter 25 March 2020)

	Key HAI related activities • There were two patients in April where *C. difficile* was recorded as either a primary or contributory factor on their death certificate and one in May. There were no recorded deaths in April or May where MRSA was listed as either a primary or contributory factor. • IPCAT Audits recommenced on 1 June 2020. • Routine weekly ward visits to all wards re-commenced 15 May 2020. • All suspended IPCT activities have now returned to normal and business continuity plans have been stood down.

Glossary of abbreviations

Following feedback from stakeholders, below is a list of abbreviations used within this report:

HAI - Hospital acquired infection (not present or incubating on admission to hospital and arising ≥ 48 hours after admission). Please note this excludes COVID-19 cases (hospital onset currently thought to be >14 days)
HCAI - Healthcare associated infection
SAB - *Staphylococcus aureus* bacteraemia
IVAD - Intravenous access device
CDI - *Clostridioides difficile* infection
AOP - Annual Operational Plan
NES - National Education for Scotland
IPCT - Infection Prevention & Control Team
HEI - Healthcare Environment Inspectorate
SSI - Surgical Site Infection
SICPs - Standard Infection Control Precautions
PVC - Peripheral Vascular Catheter

Definitions used for *S. aureus* and *E.coli* bacteraemias

Definition of a bacteraemia

Bacteraemia is the presence of bacteria in the blood. Blood is normally a sterile environment, so the detection of bacteria in the blood (most commonly accomplished by blood cultures) is always abnormal. It is distinct from sepsis, which is the host response to the bacteria. Bacteria can enter the bloodstream as a severe complication of infection (like pneumonia, meningitis, urinary tract infections etc.), during surgery, or due to invasive devices such as PVCs, Hickman lines, urinary catheters etc. Transient bacteraemias can result after dental procedures or even brushing of teeth although this poses little or no threat to the person in normal situations.

Bacteraemia can have several important health consequences. The immune response to the bacteria can cause sepsis and septic shock which has a high mortality rate. Bacteria can also spread via the blood to other parts of the body (haematogenous spread), causing infections away from the original site of infection, such as endocarditis (infection of the heart valves) or osteomyelitis (infection of the bones). Treatment for bacteraemia is with antibiotics for many weeks in some circumstances however cases such as *Staph aureus* bacteraemia, usually 14 days of antibiotic therapy is required.

Origin definitions for bacteraemia

Healthcare Associated Infection	**Hospital Acquired Infection** Positive blood culture obtained from a patient who has been hospitalised for ≥48 hours. If the patient was transferred from another hospital, the duration of in-patient stay is calculated from the date of the first hospital admission. If the patient was a neonate / baby who has never left hospital since being born. OR The patient was discharged from hospital in the 48 hours prior to the positive blood culture being taken. OR A patient who receives regular haemodialysis as an out-patient. OR Contaminant if the blood aspirated in hospital. OR If infection source / entry point is surgical site infection (SSI). *[This will be attributed to hospital of surgical procedure]*
	Healthcare Associated Infection Positive blood culture obtained from a patient within 48 hours of admission to hospital and fulfils one or more of the following criteria: Was hospitalised overnight in the 30 days prior to the positive blood culture being taken. OR Resides in a nursing, long-term care facility or residential home. OR IV, or intra-articular medication in the 30 days prior to the positive blood culture being taken, but excluding IV illicit drug use. OR Had the use of a registered medical device in the 30 days prior to the positive blood culture being taken, e.g. intermittent self-catheterisation or percutaneous endoscopic gastrostomy (PEG) tube with or without the direct involvement of a healthcare worker (excludes haemodialysis lines see HAI). OR Underwent any medical procedure which broke mucous or skin barrier, i.e. biopsies or dental extraction in the 30 days prior to the positive blood culture being taken. OR Underwent care for a medical condition by a healthcare worker in the community which involved contact with non-intact skin, mucous membranes or the use of an invasive device in the 30 days prior to the positive blood culture being taken, e.g. podiatry or dressing of chronic ulcers, catheter change or insertion.
Community Acquired Infection	Positive blood culture obtained from a patient within 48 hours of admission to hospital who does not fulfil any of the criteria for healthcare associated bloodstream infection.

HCAI Surveillance

NHSGGC has systems in place to monitor key targets and areas for delivery. The surveillance and HCAI systems and ways of working allow early detection and indication of areas of concern or deteriorating performance. The IPCT undertake formal ward audits (IPCAT) in addition to regular weekly ward visits by the IPC Nurse; infection investigation is also a significant function within the team as part of the AOP target reporting. This activity provides robust intelligence of how infection prevention is maintained across all areas and is reported on a monthly basis to all appropriate stakeholders.

***Staphylococcus aureus* bacteraemia (SAB)**

All blood cultures that grow bacteria are reported nationally and it was found that *S. aureus* became the most common bacteria isolated from blood culture. As *S. aureus* is an organism that is found commonly on skin it was assumed (nationally) the bacteraemias occurred via a device such as a peripheral vascular catheter (PVC) and as such a national reduction strategy was initiated and became part of the then HEAT targets in 2006. The target was a national reduction rather than a board-specific reduction however the latest target set for 2019-2022 are Board-specific, based on current infection rates.

NHSGGC's approach to SAB prevention and reduction

All *Staph aureus* bacteraemia are monitored and reported by the IPCT. Investigations to the cause of infection consist of examining the patients notes, microbiology, biochemistry and haematology reports to identify potential causes of the infection; from this, in most cases, a provisional cause is identified however if necessary, this is discussed further with the clinical team responsible for the management of the patient to assist further with the investigation. Any issues identified during the investigations, such as incomplete bundle* etc., is highlighted at this time and where appropriate a DATIX report is generated. Once a conclusion has been agreed, the information is discussed with the Infection Control Doctor and outcomes agreed. This information is part of mandatory reporting and is submitted to HPS quarterly.

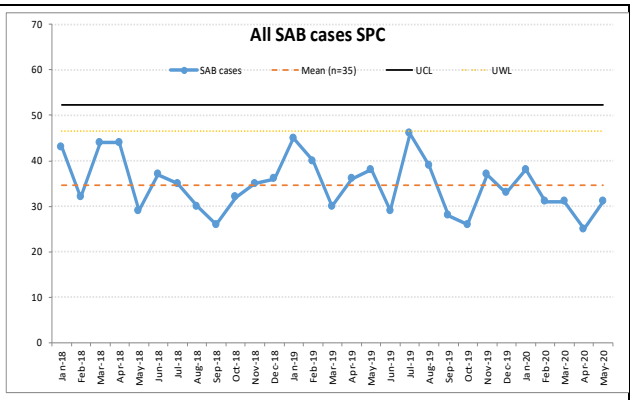
*Care "bundles" are simple sets of evidence-based practices that when implemented collectively, improve the reliability of their delivery and improve patient outcomes. There are several care bundles in use within IPC in GGC, i.e. PVC, CVC, SSI and Urinary Catheter Care (UCC). Compliance with these bundles are monitored via the IPC audit IPCAT, and if there is an incident or outbreak.

Information on patients with SABs and any follow-up actions are reported to the Directorate/Division in two ways; in their monthly summary reports, and quarterly in a SAB specific report. A monthly GGC report is also produced and circulated and this is presented as a summary at the Acute Clinical Governance Committee. All SABs associated with an IV access device are followed-up by an audit of PVC/CVC practice in the ward or clinical area of origin, and the results are returned to the Chief Nurse for the Sector/Directorate. The analysis of the data and subsequent SAB reports enables the IPCT to identify trends in particular sources of infections such as Hickman line infections etc. and it also enables us to identify areas requiring further support. The data also influences the elements contained in the IPCT annual work plan.

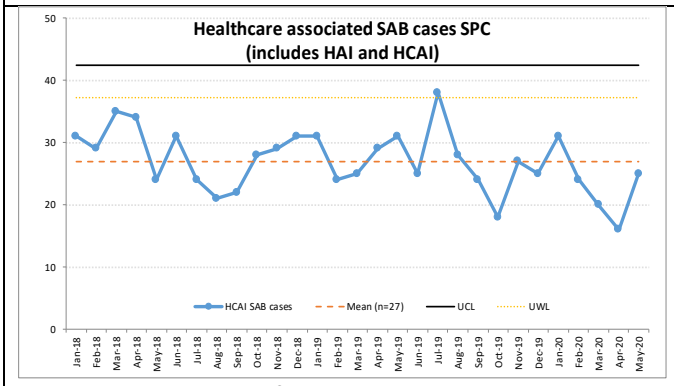
	April 2020	May 2020
Total	**25**	**31**
Hospital	6	19
Healthcare	10	6
Community	9	6

RAG Status *- GREEN denotes monthly case numbers are less than the mean monthly SAB totals. AMBER denotes when monthly case numbers are above the mean monthly SAB totals but less than three standard deviations from the mean. RED denotes monthly case numbers are above three standard deviations from the mean.*

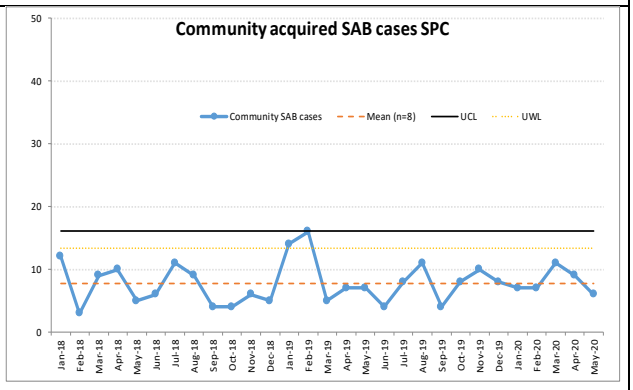
Healthcare associated *S. aureus* bacteraemia total: June 2019 to date = 301



Comment: Increase in hospital acquired cases in May. All investigated and all were in different wards across six hospital sites. No common factors were identified.



Comment: Number of cases increased in May however remains below the mean (average).



Comment: Case numbers remain within control limits.

Breakdown of Healthcare SAB entry point

April

Source	No of Cases
Light surveillance methodology	

May

Hospital acquired	No of Cases = 19
UNDER INVESTIGATION	5
PVC	5
Source not identified	2
Respiratory infection	2
Dialysis line non tunnelled	1
CVC non tunnelled	1
Vascular graft >day 90 post surgery	1
PICC/Midline	1
Surgical site infection (organ/space)	1
Healthcare associated	**No of Cases = 6**
Abscess	2
Portacath insertion >8 weeks	1
Source not identified	1
Dental	1
Pancreatic collection	1

There were 5224 blood cultures taken in the month of April. Of those, there were in total 25 blood cultures that grew *S. aureus*.

This accounts for 0.5% of all blood cultures taken that month.

Hospital SABs account for 0.1% of blood cultures taken.

IV access device (IVAD) associated SABs

In addition to the nationally set targets, infections from an IV access device caused by *S. aureus* are investigated fully and reported.

NHSGGC's approach to SAB prevention and reduction

Continual monitoring and analysis of local surveillance data enables the IPCT and managers to identify and work towards ways to reduce infections associated with IV access devices. All SABs are reviewed and investigated fully and highlighted to the patients' clinicians, nursing staff and management. Where appropriate, a DATIX is generated to enable infections that require learning is shared and discussed at local clinical governance meetings.

In addition, the IPCT assess bundle compliance of three invasive devices (PVCs, urinary catheters, CVCs etc.) as part of their IPCAT audit programme and this is reported in the monthly Directorate Reports. There is also a multi-disciplinary GGC SAB Group which comprises clinicians from many areas in order to review information and devise strategies to reduce SABs.

May 2020

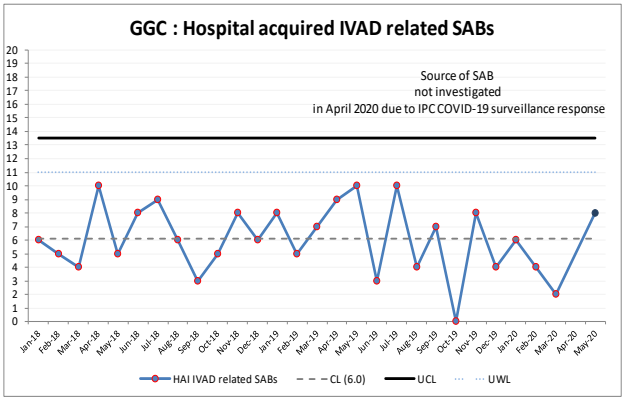
Enhanced bacteraemia surveillance temporarily switched to light methodology as directed by SG because of the acknowledged increased workload of IPCTs responding to the challenges of COVID-19. No data on source of SAB collected in April.

Eight hospital acquired cases in May 2020:

Location of IV access device related SABs

BOC Ward B1
GRI Ward 9
IRH G North
QEUH CC ITU1
QEUH Ward 10D
QEUH Ward 11D
QEUH Ward 4D
QEUH Ward 6B

RAG Status *- GREEN denotes monthly case numbers are less than the mean monthly total. AMBER denotes when monthly case numbers are above the monthly mean but less than three standard deviations from the monthly mean. RED denotes monthly case numbers are above three standard deviations from the monthly mean.*

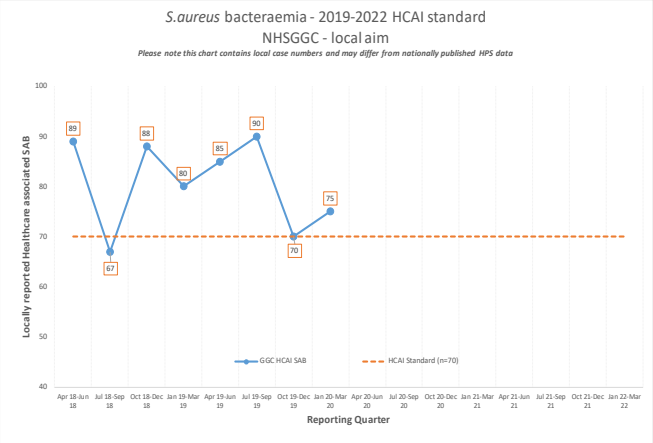


Comment: Above chart mean in May 2020. Ward audits of device care plan undertaken by IPCT and results prospectively fed back to nursing team. Common themes were the failure to complete the care plan and consequently the care bundle.

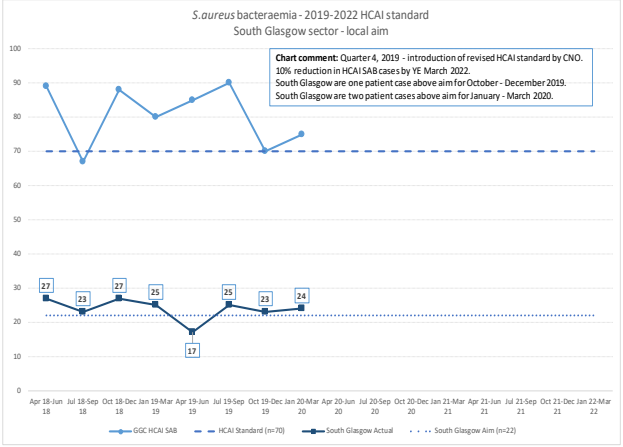
Healthcare Associated Infection Standards – local reduction aims

- *S. aureus* bacteraemia – reduction of 10% from 2019 to 2022

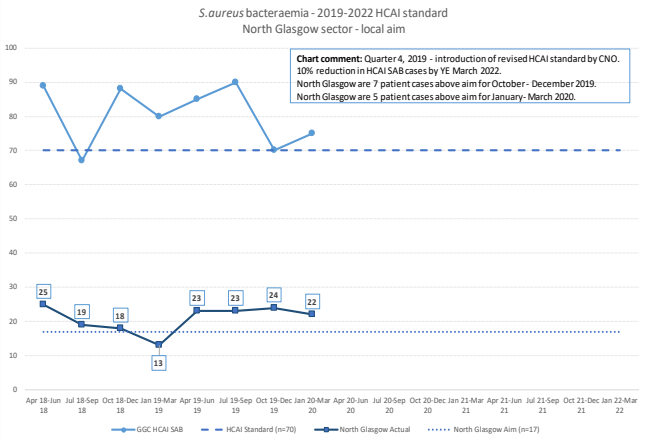
Local quarterly reduction aim charts have been produced for GGC as a whole and for the five Acute sectors.



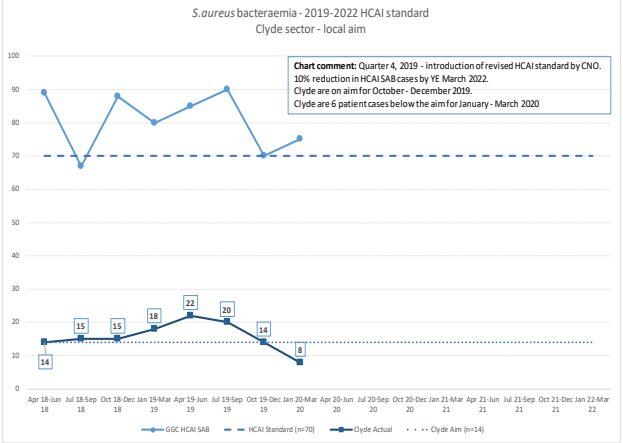
Comment: HCAI standard aim is 70 cases or less per quarter by 2022. NHSGGC were 5 cases above aim for January-March 2020.



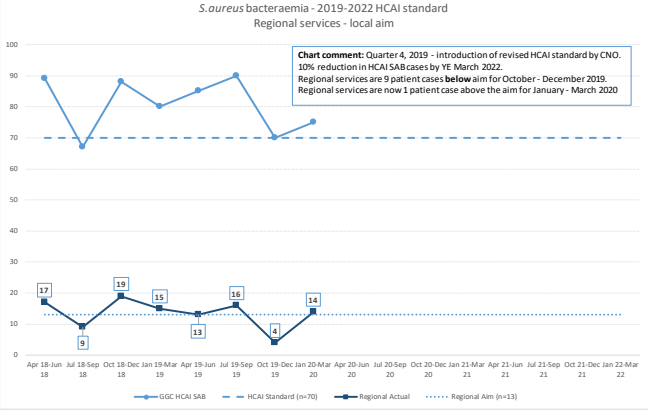
Comment: South Glasgow Sector aim is 22 cases or less per quarter. 2 patient cases above aim for the last reporting quarter.



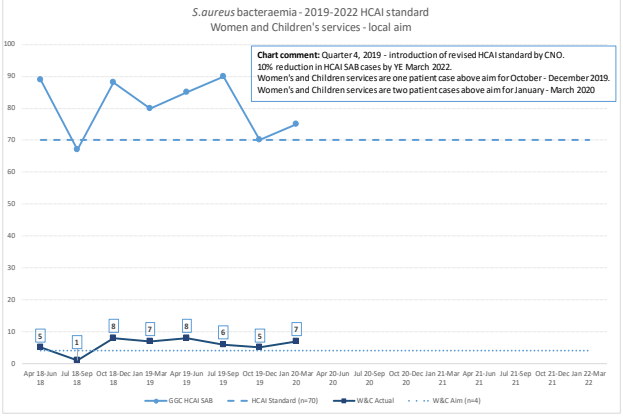
Comment: North Glasgow are 5 patient cases above HCAI aim for the quarter. Local improvement work to reduce the number of IV access device related cases is ongoing.



Comment: Clyde sector are below aim for this quarter with 8 cases



Comment: Regional Services are just 1 patient case above aim for the quarter.



Comment: Women and Children's are 3 cases above aim. Improvement work with regards to CLABSI is ongoing in RHC and this group focus on reviewing practice and evaluating new technologies and evidence.

***Escherichia coli* bacteraemia (ECB)**

NHSGGC's approach to ECB prevention and reduction

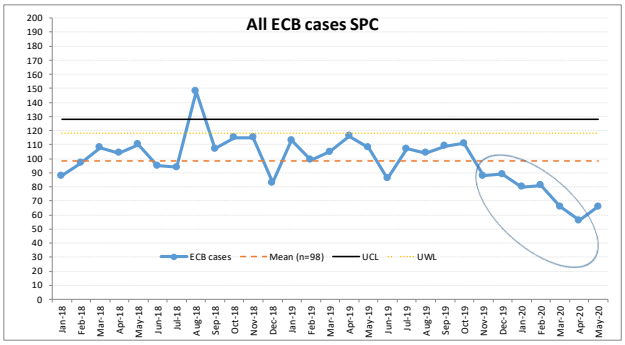
E. coli is one of the most predominant organism of the gut flora, and for the last several years the incidence of E. coli isolated from blood cultures, i.e. causing sepsis, has increased so much that it is the most frequently isolated organism in the UK. As a result of this, the HAI Policy Unit has now included E. coli as part of the AOP targets. The most common cause of E. coli bacteraemia (ECB) is from complications arising from urinary tract infections (UTIs), hepato-biliary infections (gall bladder infections) and urinary catheters infections.

Daily case totals for all three HCAI standards are reported to the IPC senior management team to provide a prospective update on the current situation within the Board.

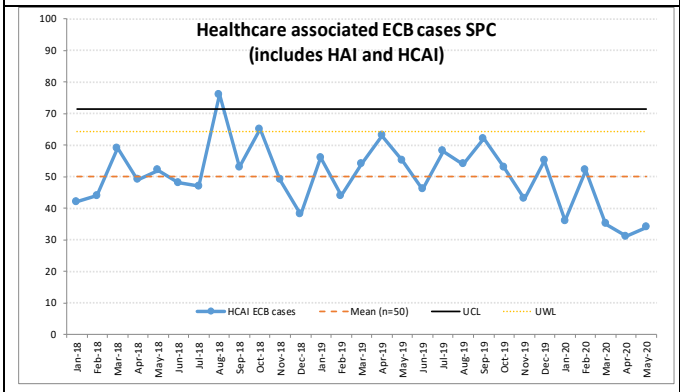
	April 2020	May 2020
Total	**56**	**66**
Hospital	12	18
Healthcare	19	16
Community	25	32

***RAG Status** - GREEN denotes monthly case numbers are less than the mean monthly total. AMBER denotes when monthly case numbers are above the monthly mean but less than three standard deviations from the monthly mean. RED denotes monthly case numbers are above three standard deviations from the monthly mean.*

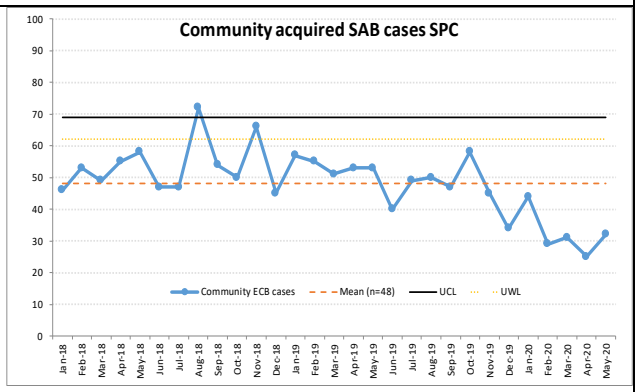
Healthcare associated *E. coli* bacteraemia total: June 2019 to date = 559



Comment: SPC chart for all E. coli bacteraemia showed a downward trend in the last six months to April. Very slight increase in May and remains below chart mean.



Comment: There is some variability in recent months however remains below chart upper control limit.



Comment: There has been a very slight increase in community onset cases in May.

Breakdown of Healthcare ECB entry point

April

Source	No of Cases
Light surveillance methodology	

May

Hospital acquired	No of Cases=18
Urinary Catheter	6
Source not identified	4
Hepatobiliary	3
Lower urinary tract infection	2
Endocarditis	1
Prosthetic hip surgery >90 days previously	1
PICC/Midline (*IV access device)*	1

There were 5224 blood cultures taken in April. Of those, there were in total 56 blood cultures that grew *E. coli*.

This accounts for 1.1% of all blood cultures taken that month.

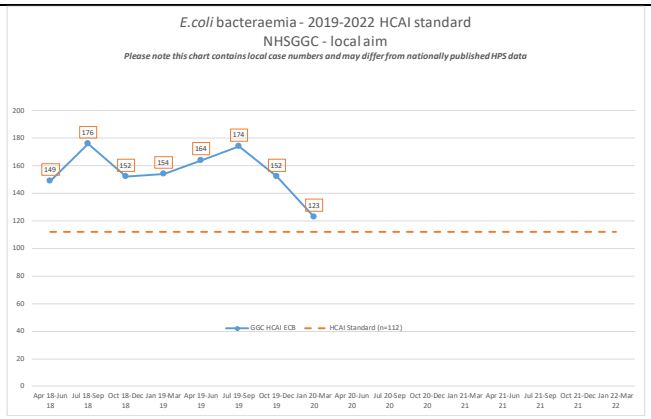
Hospital ECBs account for 0.3% of blood cultures taken.

Healthcare associated	No of Cases=16
Hepatobiliary	4
Lower urinary tract infection	3
UNDER INVESTIGATION	2
Urinary Catheter	2
Hydronephrosis	1
Source not identified	1
Pyelonephritis	1
Perianal abscess	1
Polycystic kidneys	1

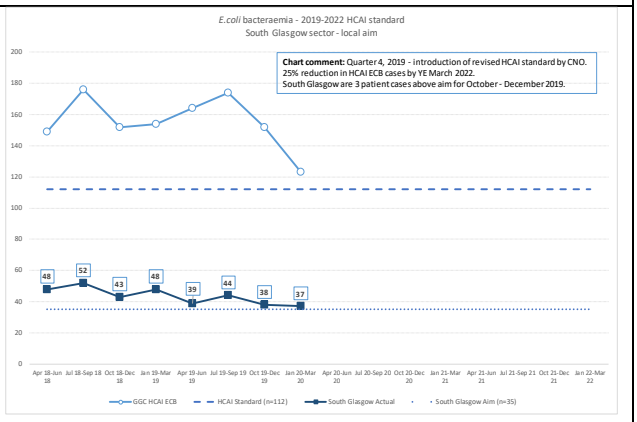
Healthcare Associated Infection Standards – local reduction aims

- *E.coli* bacteraemia – initial reduction of 25% by 2021/22

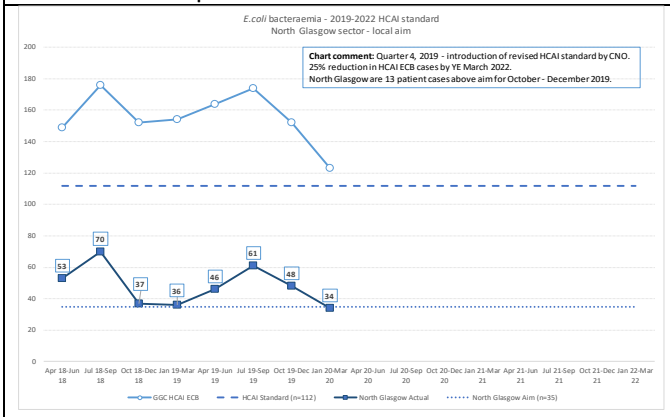
Local reduction aim charts have been produced for GGC as a whole and for the five Acute sectors. The IPC Work Plan for 2020/2021 includes the development of tools to assist clinical teams to improve the incidence of E. coli bacteraemia.



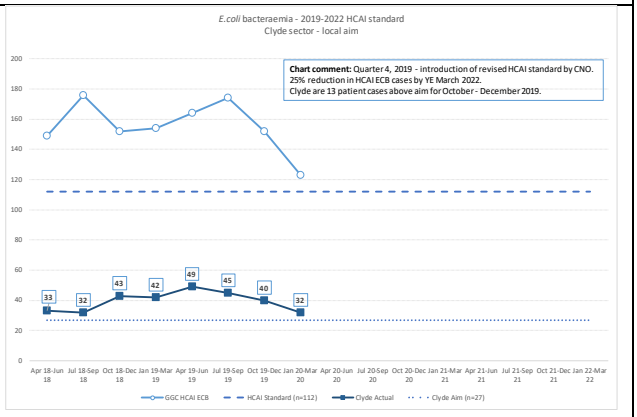
Comment: There has been a reduction in HCAI ECB case in the last two quarters.



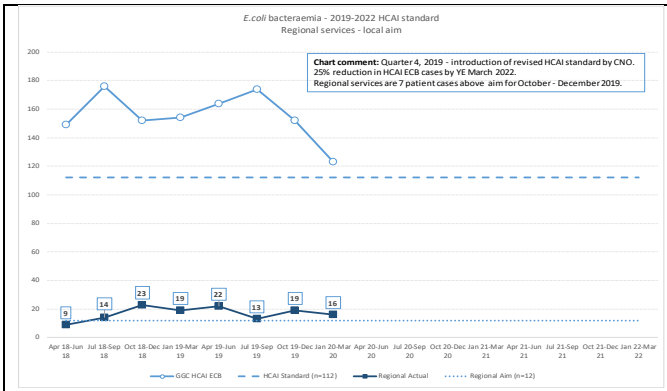
Comment: South Glasgow are 2 patient cases above aim for the quarter.



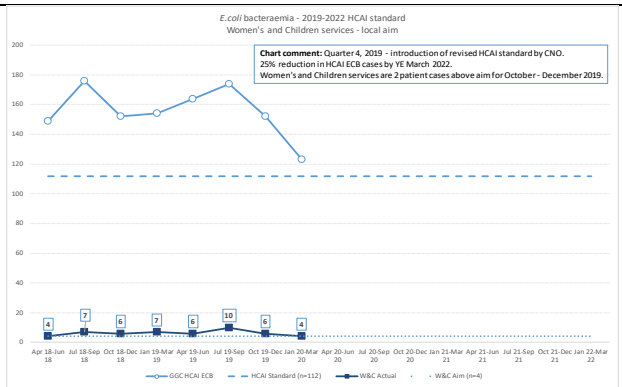
Comment: North Glasgow are 1 patient case below aim.



Comment: Clyde are 5 patient cases above aim. The IPC Work Plan for 2020/2021 includes the development of tools to assist clinical teams to improve the incidence of E. coli bacteraemia.



Comment: Regional Services are 4 patient cases above aim. The IPC Work Plan for 2020/2021 includes the development of tools to assist clinical teams to improve the incidence of E. coli bacteraemia.



Comment: Women and Children's are on aim to meet the target.

Clostridioides difficile infection (CDI)

Reporting to HPS of C*. difficile* infections has been mandatory for several years in NHS Scotland. NHSGGC has met its targets over the years and has maintained a low rate of infection. Similar to the SAB target, the new target set for 2019-2022 is based on our Board's rate rather than an overall national rate.

C. difficile can be part of the normal gut flora and can occur when patients receive broad-spectrum antibiotics which eliminate other gut flora, allowing *C. difficile* to proliferate and cause infection. This is the predominant source of infection in GGC. *C. difficile* in the environment can form resilient spores which enable the organism to survive in the environment for many months, and poor environmental cleaning or poor hand hygiene can lead to the organism transferring to other patients leading to infection. Another route of infection is when a patient receives treatment to regulate stomach acid which affects the overall pH of the gut allowing the organism to proliferate and cause infection.

Origin definitions for *Clostridioides difficile* infections

Local Enhanced CDI Surveillance in NHSGGC: Definition of Origin

Hospital acquired CDI is defined as when a CDI patient has had onset of symptoms at least 48 hours following admission to a hospital.

Healthcare associated CDI is defined as when a CDI patient has had onset of symptoms up to four weeks after discharge from a hospital.

Indeterminate cases of CDI is defined as a CDI patient who was discharged from a hospital 4-12 weeks before the onset of symptoms.

Community associated CDI is defined as a CDI patient with onset of symptoms while outside a hospital and without discharge from a hospital within the previous 12 weeks; or with onset of symptoms within 48 hours following admission to a hospital without stay in a hospital within the previous 12 weeks.

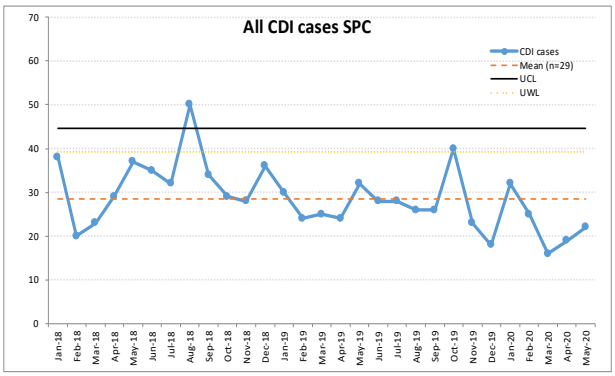
NHSGGC's approach to CDI prevention and reduction

Similar to our SAB and ECB investigation, patient history is gathered including any antibiotics prescribed over the last several months. Discussion with the clinical teams and microbiologists assist in the determination and conclusion of the significance of the organism, as occasionally the isolation of the organism can be an incidental finding and not the cause of infection. Data is shared with the antimicrobial pharmacist and cases are discussed at the Antimicrobial Management Group to identify inappropriate antimicrobial prescribing. Daily case totals for all three HCAI standards are reported to the IPC senior management team to provide a prospective update on the current situation within our Board.

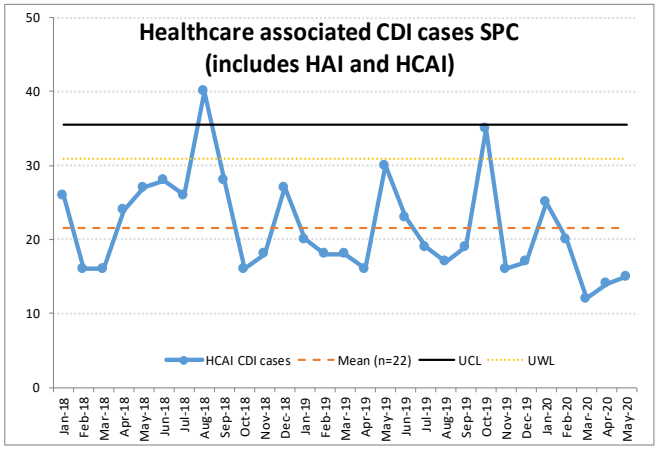
	April 2020	May 2020
Total	**19**	**22**
Hospital	8	1
Healthcare	3	7
Indeterminate	3	7
Community	5	7

RAG Status *- GREEN denotes monthly case numbers are less than the mean monthly CDI totals. AMBER denotes when monthly case numbers are above the monthly mean but less than three standard deviations from the monthly mean. RED denotes monthly case numbers are above two standard deviations from the monthly mean.*

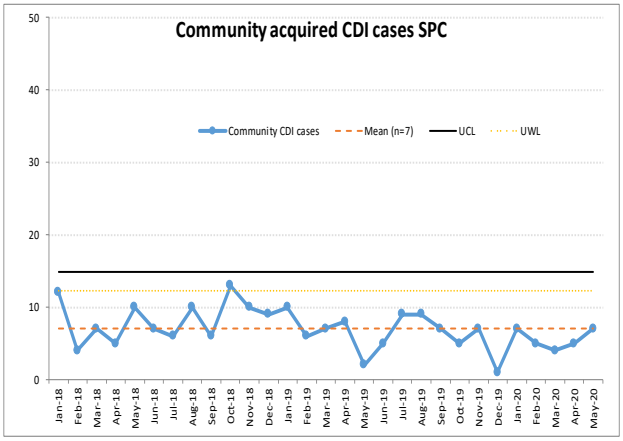
Healthcare associated *Clostridioides difficile* total: June 2019 to date = 232



Comments: Case numbers remain within control limits.



Comments: Case numbers remain within control limits.



Comments: Case numbers remain within control limits.

April Breakdown – hospital acquired cases

Ward	Number of HAI CDI
GRI Ward 15/28	2*
GRI Ward 29	1
GRI Ward 31	1
GRI Ward 33	1
RAH Ward 3	1
RAH Ward 4	1
RAH Ward 7	1
Grand Total	**8**

*HPS Trigger Tool completed. Different Ribotypes.

May Breakdown – hospital acquired cases

Ward	Number of HAI CDI
RAH Ward 20	1
Grand Total	**1**

Action Taken

Cases in hospital:

All patients are reviewed by the IPCT and advice is given regarding antimicrobial prescribing, isolation and transmission based precautions.

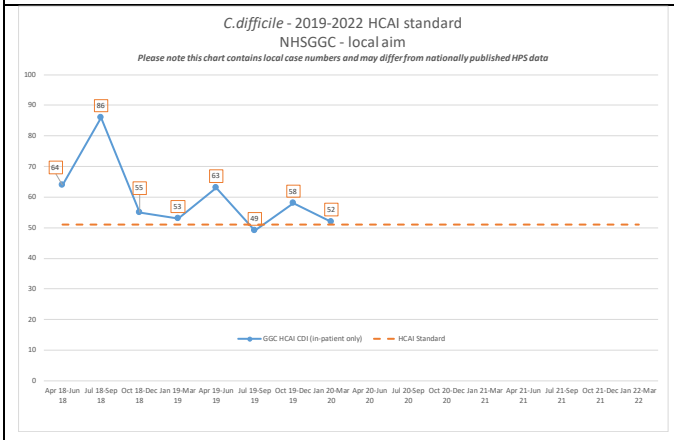
ICNs visit patient and discuss the infection and what this means for them.

Any ward with two cases of HAI in two weeks is automatically visited daily and the SCN is assisted with the completion of the HPS Trigger Tool. This tool was used daily in Ward 15/28. Subsequent typing confirmed them to be different types and therefore not due to cross-infection.

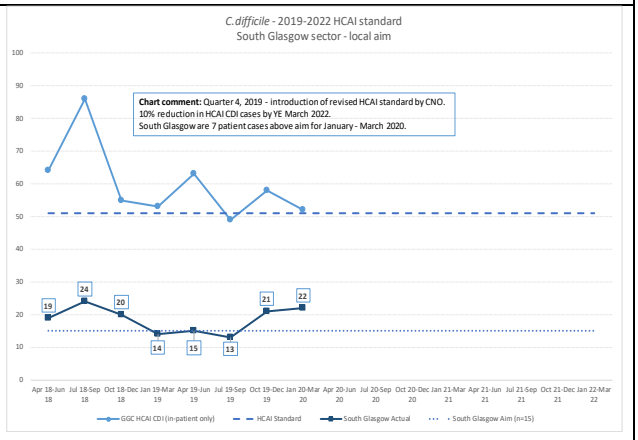
Any clusters (2) are sent to the Reference Lab for testing.

Each ward receives an updated CDI SPC each month.

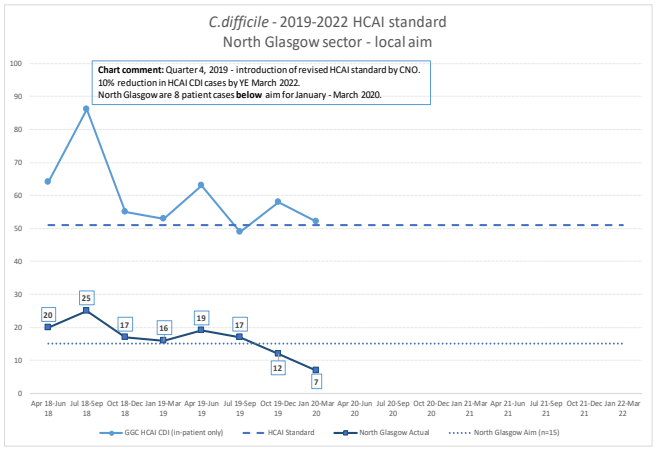
- **Healthcare Associated Infection Standards – local reduction aims** *C. difficile* – reduction of 10% from 2019 to 2022



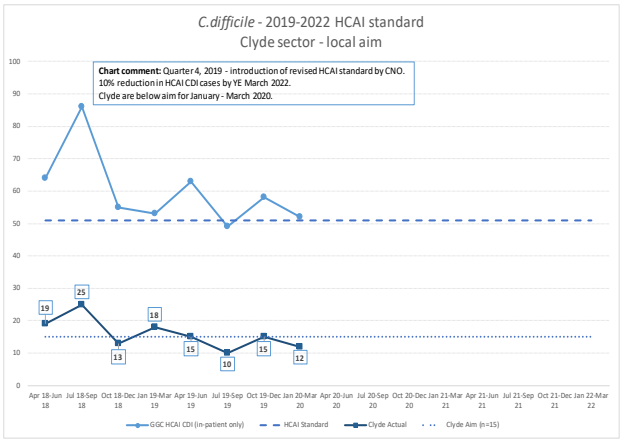
Comment: the chart above excludes HCAI specimen from GPs, Hospices. GGC is one patient case above aim.



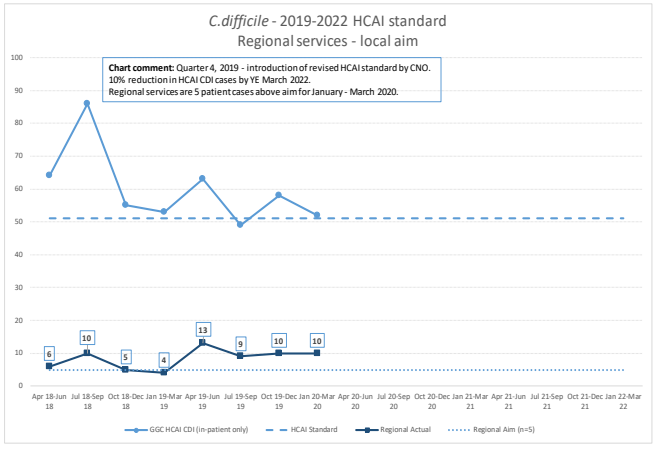
Comment: South Glasgow have been above aim for the past two quarters. Each case has been investigated and there are no common links that would imply these were anything other than isolated occurrences.



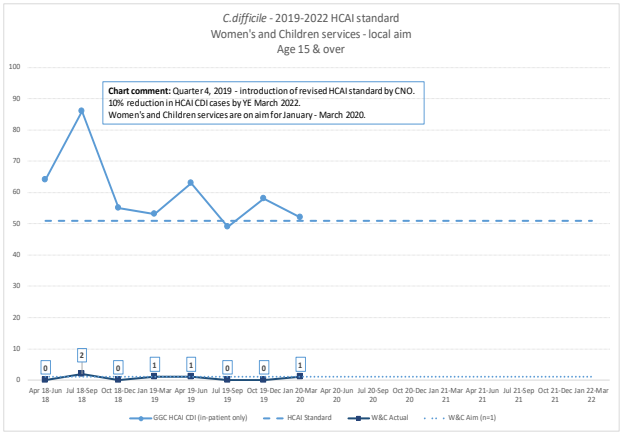
Comment: North Glasgow have been below aim for the past two quarters.



Comment: Clyde are below aim.



Comment: Regional Services are above aim. Each case has been investigated and there are no common links that would imply these were anything other than isolated occurrences.



Comment: On aim for the quarter.

AOP Targets

New HAI AOP targets for 2019-2022

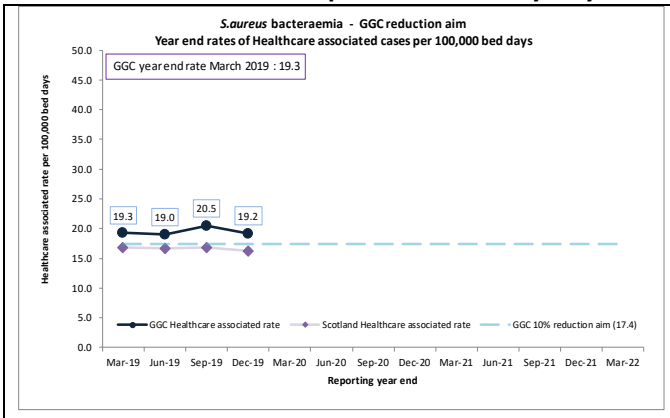
On 10 October 2019 a letter was sent to all Health Board Chief Executives highlighting our new HCAI targets. These targets are based on our (NHSGGC) current rates of infection and a percentage reduction has been set to be achieved by March 2022. This target is different from our previous targets and includes the reduction in hospital acquired and healthcare associated infections and does not include community acquired. Hospital acquired and healthcare associated infections are now grouped together for reporting and classified as **healthcare associated infections** as it is perceived nationally that these are all reducible. For continuity, we will continue to report separately hospital and healthcare infections to maintain our quality and transparency in our data, however, the total number of infections will reflect on what we are reported nationally and in line with our set targets. In addition to SAB and CDI targets, *Escherichia coli* bacteraemia (ECB) is now included in our targets.

Please see table below for our new targets:

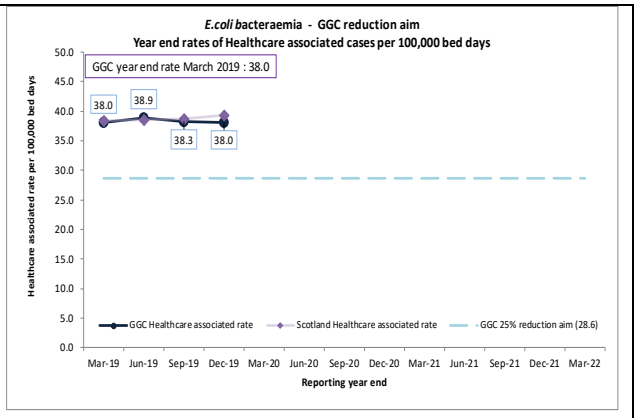
	2018/19 Rate (base line) per 100,000 total bed days	No of HCAI cases (per annum)	Reduction %	Date for reduction	Target HCAI rate per 100,000 total bed days	Target HCAI cases per annum	Target HCAI cases per month
SAB	19.3	324	10	2022	**17.4**	280	23
ECB	38.1	638	25	2022	**28.6**	452	38
CDI	19.0	318	10	2022	**17.1**	204	17

AOP target progress to date- published HPS data

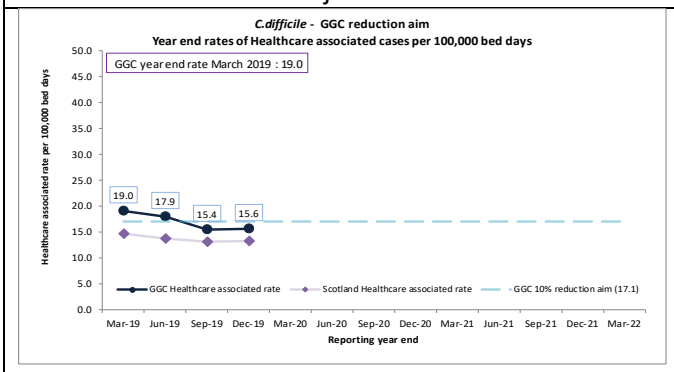
NB: Q1-2020 data will be published in early July



Comments: Reduction is just above aim.



Comments: Reduction is above aim



Comments: Reduction below aim.

Quarter ending December 2019

Target	RAG Status
SAB	↓
ECB	↓
CDI	↑

Comments

CDI rate is below aim. Work is continuing to reduce avoidable harm SABs related to IV access devices. ECB reduction aim of 25% is more challenging as many of these infections are related to urinary or hepatobiliary sources.

Surgical Site Infection Surveillance (SSIS)

Surgical site infection surveillance is the monitoring and detection of infections associated with a surgical procedure. In GGC the procedures include hip arthroplasty, Caesarean-section, major vascular surgery and large bowel surgery. These are all mandatory procedure categories for national reporting. In addition IPCT undertake surveillance on knee arthroplasty, repair of fractured neck of femur and in the Institute of Neurological Sciences (QEUH campus), spinal and cranial surgery. The IPCT monitor patients for 30 days post surgery and for those procedures with implants, up to 90 days post surgery including any microbiological investigations from the ward for potential infections and also hospital re-admissions relating to their surgery. Any mandatory procedure category infection associated with a surgical procedure is reported nationally to enable board to board comparison. GGC infection rates are comparable to national infection rates.

NHSGGC's approach to SSI prevention and reduction

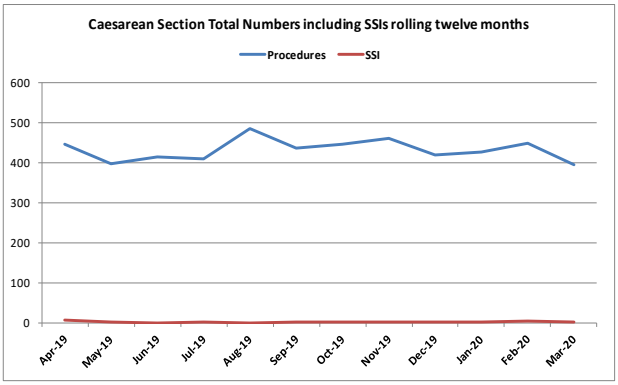
Surgical site infection criteria is determined using the European Centre for Disease Control (ECDC) definitions. Any infection identified is investigated fully and information gathered including the patients' weight, duration of surgery, grade of surgeon, prophylactic antibiotics given, theatre room, elective or emergency, primary theatre dressing etc. can provide additional intelligence in reduction strategies. The IPCT closely monitor infection rates, and any increased incidence of SSIs are reported to management and clinical teams, and IMTs are held.

April /May Breakdown

SSI surveillance is temporarily paused due to COVID-19 response.

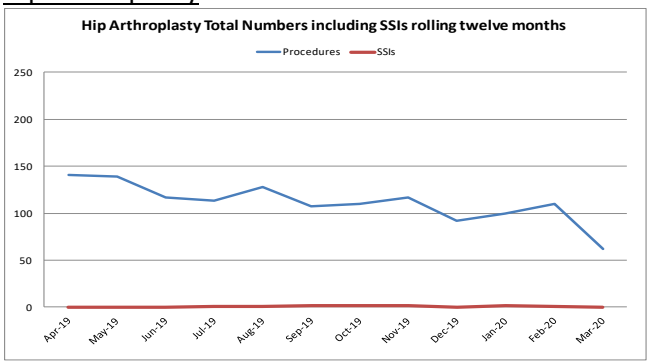
All graphs display data up to March 2020 procedures.

Caesarean-section



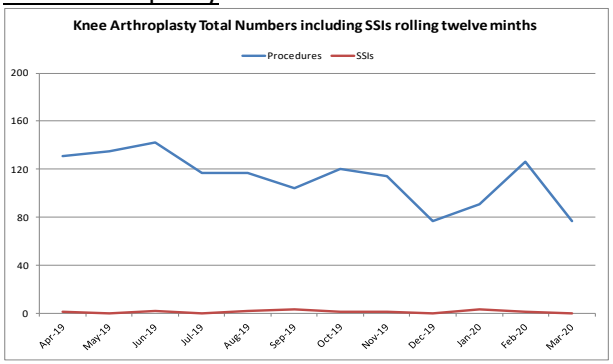
Comments: case numbers remain within control limits.

Hip Arthroplasty



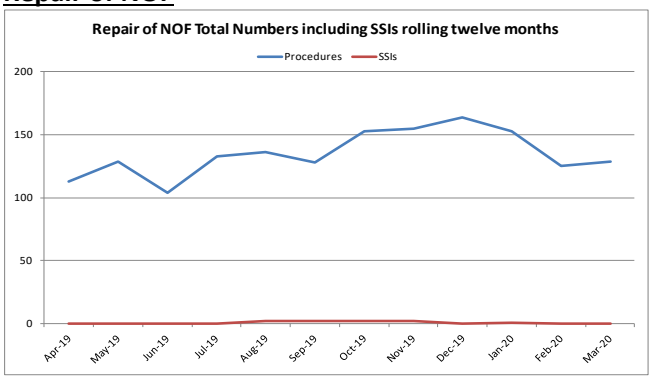
Comments: case numbers remain within control limits.

Knee Arthroplasty



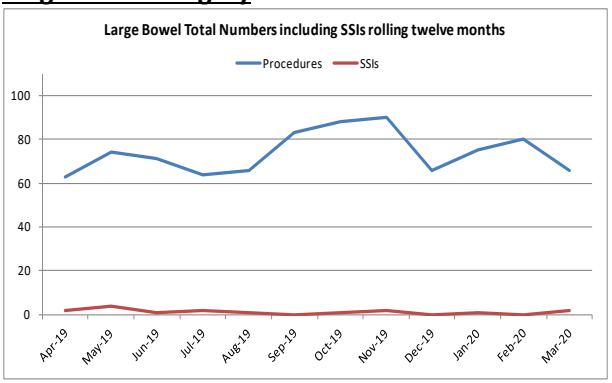
Comments: case numbers remain within control limits.

Repair of NOF



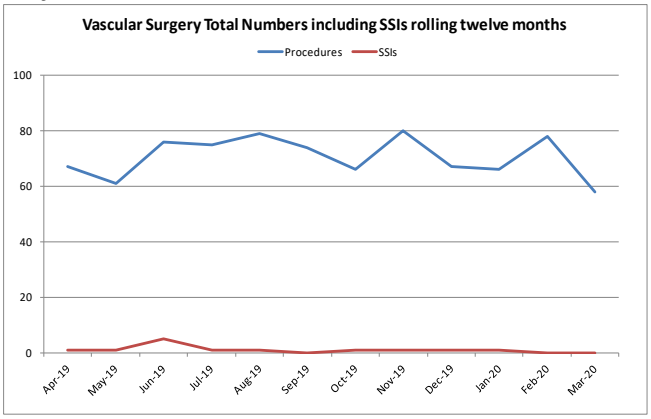
Comments: case numbers remain within control limits.

Large Bowel Surgery



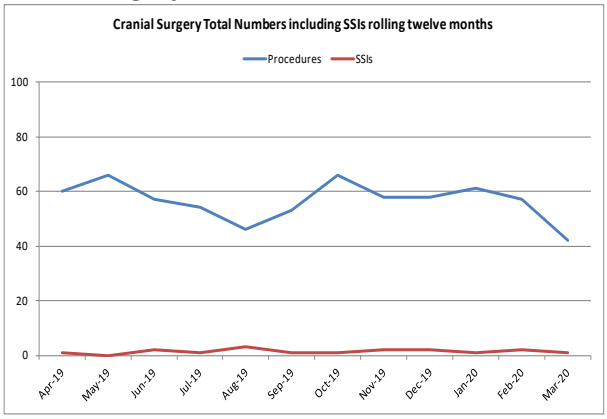
Comments: case numbers remain within control limits.

Major Vascular



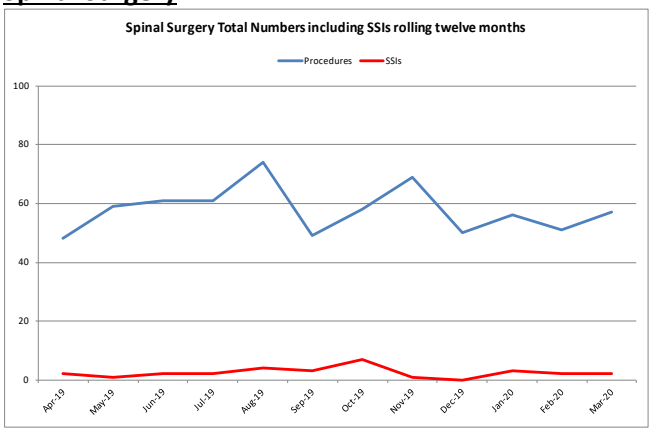
Comments: case numbers remain within control limits.

Cranial Surgery



Comments: case numbers remain within control limits.

Spinal Surgery



Comments: case numbers remain within control limits.

IPCAT – audit programme

The existing IPCAT acute audit was updated in February 2020 therefore no trend data to report.

Results are fed back prospectively via the Synbiotix platform to the chief nurse, senior management and nursing staff. All critical non-compliance are completed within 24 hours by the responsible person for each clinical area.

Due to COVID-19 response, IPCAT activity was paused across our Board but the audit programme recommenced on 1 June 2020. The number of audits normally carried out each month is normally 30-40 and this does not include hand hygiene audits, audits of PVC and CVC bundle compliance in relation to IVAD HAI SAB or enhanced supervision visits.

April/May Breakdown

- Audits were temporarily paused due to COVID-19 response but recommenced on 1 June 2020.

Action Taken
During each audit the IPCT look at the compliance with standard infection control precautions (SICPs). These include Patient Placement, Hand Hygiene, PPE, Managing Patient Care Equipment, Control of the Environment, Safe Management of Linen and Safe Disposal of Waste, Transmission Based Precaution (TBPs), Compliance with PVC, CVC and CAUTI bundles and compliance with requirement re clinical risk assessment for MRSA and CPE screening. Critical non-compliances are required to be rectified within 24 hours. The action plan is electronically returned to the SCN to be completed in one month. Any sections that score RED are followed-up with a joint re-audit with the IPCN and SCN to try and support staff in this process and determine any barriers that make the application of IPC standards difficult to implement. Audit results are included in the monthly activity reports to directorates and sectors but SCN, LN and Chief Nurses all have access to the audit dashboard and can view the results and action plans in real time.

Meticillin resistant *Staphylococcus aureus* (MRSA) & *Clostridioides difficile* recorded deaths

The National Records of Scotland monitor and report on a variety of deaths recorded on the death certificate. Two organisms are monitored and reported, MRSA and *C. difficile*. Please click on the link below for further information:

https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths

There were two deaths where *Clostridioides difficile* was recorded on the death certificate during April, one of which was after the patient was discharged, and one case during May.

Hand Hygiene Monitoring Compliance

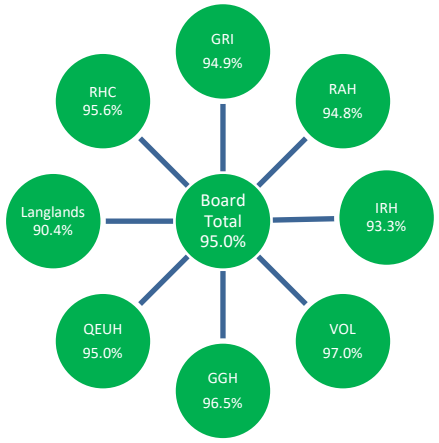
NHS GGC Board

	Jun 2019	Jul 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020
Board Total	97	97	97	98	97	96	98	97	97	97	99	99

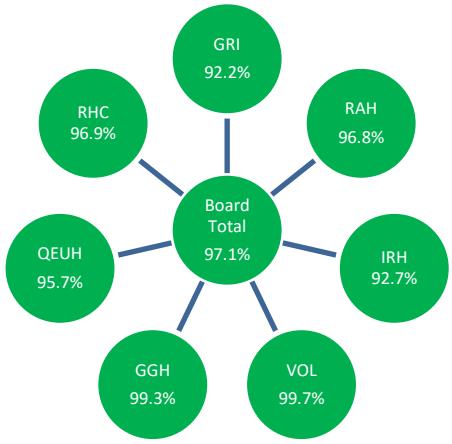
Hospital site	April 2020	May 2020
Glasgow Royal Infirmary/Princess Royal Maternity	98%	99%
Gartnavel General Hospital/Beaton Oncology Centre	100%	99%
Inverclyde Royal Hospital	100%	100%
Queen Elizabeth University Hospital	100%	98%
Royal Alexandra Hospital	94%	98%
Royal Hospital for Children	99%	98%
Vale of Leven Hospital	100%	100%
NHSGGC Total	**99%**	**99%**

Estate and Cleaning Compliance (per hospital)

The data is collected through audit by the Domestic Services Team using the Domestic Monitoring National Tool, and areas chosen within each hospital is randomly selected by the audit tool. Any issues such as inadequate cleaning is scored appropriately and if the score is less than 80% then a re-audit is scheduled. Estates compliance assesses whether the environment can be effectively cleaned; this can be a combination of minor non-compliances such as missing screwcaps, damaged sanitary sealant, scratches to woodwork etc. The results of these findings are shared with Serco/Estates for repair. Similar to the cleaning audit, scores below 80% triggers a re-audit.



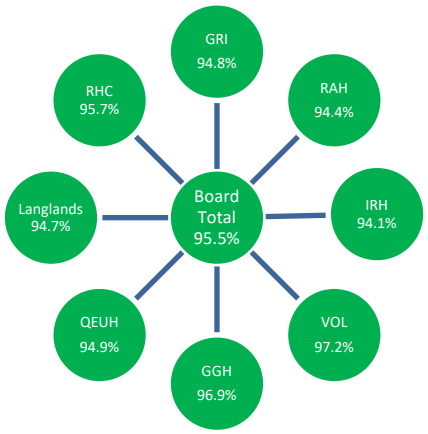
Cleaning Compliance



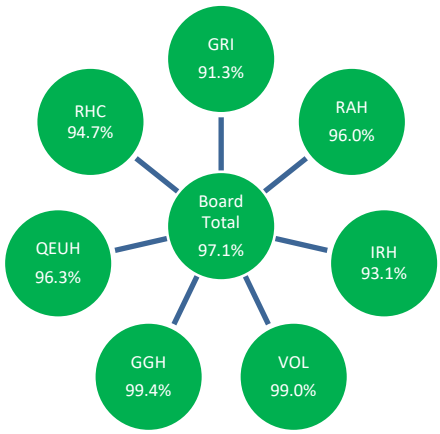
Estates Compliance

	Colour	Description
●	Green	compliance level 90% and above - Compliant
●	Amber	compliance level between 70% and 90% - Partially compliant
●	Red	compliance level below 70% - Non-compliant

The charts above show Estate and cleaning compliance data for April, the chart below shows compliance for May.



Cleaning Compliance



Estates Compliance

	Colour	Description
●	Green	compliance level 90% and above - Compliant
●	Amber	compliance level between 70% and 90% - Partially compliant
●	Red	compliance level below 70% - Non-compliant

COVID-19 update

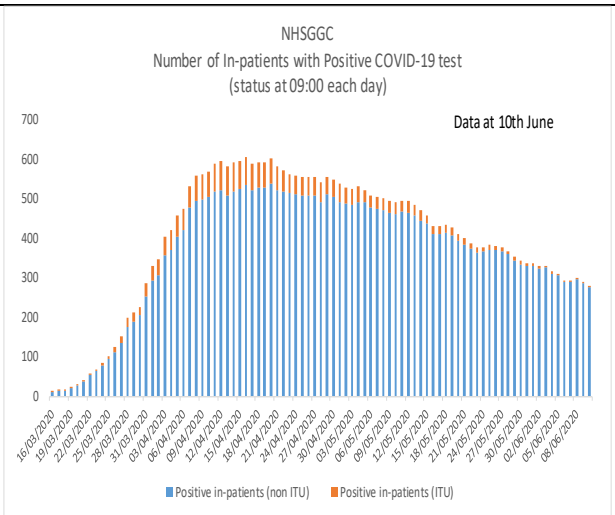
We are now moving from a containment to a recovery phase.

IPCT Business Continuity Plans were invoked at the end of March but many including the IPCTs BCP are being stood down and recovery plans developed.

To date in NHSGGC there have been over 4200 confirmed positive cases however many people do not require admission to our hospitals.

As well as the IPCNs providing advice and expertise to the local clinical teams, the IPCT monitor all COVID-19 positive cases to assist with the provision of overall case numbers, ITU admissions and deaths.

This bar graph displays the number of in-patients across all GGC hospital who are positive for COVID-19. In orange are the number of people in intensive care areas.



NHSGGC in-patients with COVID-19- general ward areas in blue, ITUs in orange.

Ward closures due to COVID-19

There have been 27 ward closures in 11 hospitals.
7 wards that closed in April did not re-open until May. The bed days lost for April include the data for the time the wards were closed in May. There is currently 1 ward closed in NHSGGC (22.06.20).

Month	Mar -20	Apr -20	May-20
Ward Closures	6	16	5
Bed Days Lost	597	1270	184

Incidents/Outbreaks

Incidence and outbreaks across NHSGGC are identified primarily through ICNet, microbiology or from the ward. ICNet is the IPCT data management system that automatically identifies clusters of infections and specific organisms such as MRSA, admission of patients with known infections etc. to enable timely patient management to prevent any possible spread of infection. The identification of outbreaks is determined following discussion with the microbiologist. In the event of a declared outbreak a Problem Assessment Group (PAG) or Incident Management Team (IMT) meeting is held with staff from the area concerned, and actions are implemented to control further infection and transmission.

All outbreaks are notified to HPS and Scottish Government.

Healthcare Infection Incident Assessment Tool (HIIAT)

The HIIAT is a tool used by boards to assess the impact of an incident or outbreak. The tool is a risk assessment and allows boards to rate the incident/outbreak as a RED, AMBER, or GREEN. The tool also directs boards whether to inform HPS/SGHD of the incident (if AMBER or RED), release a media statement etc.

HIIAT GREEN - Two reported for April, four for May
HIIAT AMBER - Three reported for April
HIIAT RED - None reported for April or May

Incidents/Outbreaks (HIIAT assessed as Amber or Red)

Update - Royal Alexandra Hospital: NICU.
In April one patient within the NICU in RAH tested positive for COVID-19. All patients in the unit were screened and one further patient was identified. Twice daily cleaning and visitor restrictions were already in place and staff were reminded to self-isolate at home if they had any symptoms. This message was also reinforced to parents. The use of personal protected equipment and good hand hygiene was also reinforced. The unit was assessed daily until 28/04/20 and no further cases were identified. Both patients were discharged home well. HIIAT assessed as AMBER on 16/04/20 then GREEN on 17/04/20.

Update - QEUH: ITU Enterobacter aerogenes
In April one of the COVID-19 ITU hubs had four cases of HAI *Enterobacter aerogenes* identified over several weeks. An IMT met and an action plan was agreed with clinical staff in the unit. There have been no new cases since 29 April. Two patients had the organism isolated from blood cultures the other two cases were from a line tip and/or sputum. HIIAT assessed as AMBER on 17 April and the 29 April.

Update - Royal Hospital for Children: Ward 6A (QEUH).
Two gram negative bacteraemias were reported in a two-week period at the beginning of April; both patients were discharged home well. One was considered to be hospital acquired the other was healthcare associated. As per agreed triggers, an IMT was convened to review the cases. Two different organisms were identified neither of which are considered to be environmental organisms. A number of actions were put in place and the cases were reported as per Chapter 3 of the National Infection Prevention and Control Manual.

COVID-19
IPCT continue to review all patients with COVID-19, although local and national emerging evidence would suggest that elderly patients do not always meet the current case definition. The role of pre and asymptomatic cases in both patients and HCW is still being debated and additional guidance regarding the screening of staff in acute care is anticipated. Achieving control when we are unaware of these types of cases within both patient and HCW cohorts is extremely challenging. In addition, implementing IC guidance in the context of the cognitively impaired frail elderly population is also a challenge but staff are committed to supporting all patients at all times.

GGC continues to follow the 4 nations and HPS guidance and GGC were one of the first NHS Boards in Scotland to implement universal PPE for all HCWs. Several other control measures out-with national guidance have been adopted across NHSGGC based on local intelligence; for example, screening of all patients in a closed ward regardless of symptoms, was introduced by the Infection Control Doctors in GGC before universal screening of the over 70s was mandated. GGC also restricted movement within contact cohorts as far as possible from the middle of April. Wards are now closed and all patients are screened if a single case occurs, this is also in addition to national guidance.

We now know that there was a significant community outbreak at the beginning of March across the central belt of Scotland before visiting was restricted and before universal PPE was recommended.

HPS are in the process of preparing Board Reports and this will be presented via the Clinical Governance arrangements in due course.

No new incidents for April/May

Multi-drug resistant organism screening

As part of the national mandatory requirements, each board is expected to screen specific patients for resistant organisms. These are Carbapenemase producing Enterobacteriaceae (CPE) and Meticillin resistant *Staphylococcus aureus* (MRSA). Assessment to screen depends on a clinical risk assessment performed on all admissions to indicate whether the patient requires to be screened. On a quarterly basis we assess compliance of completing this risk assessment to provide assurance of effective screening and report this nationally. The national expectation of compliance is 90%. NHSGGC has met both measures.

Last validated quarter (January to March 2020)		NHSGGC **95%** compliance rate for CPE screening	Scotland 85%
		NHSGGC **96%** compliance rate for MRSA screening	Scotland 87%
Current quarter (April to June 2020)		NHSGGC **94%** compliance rate for CPE screening	Scotland tbc
		NHSGGC **93%** compliance rate for MRSA screening	Scotland tbc

HPS Validated Data

Quarter 1 2020 data will be available early July

HPS Validated Data

Quarter 3 Jul-Sept

Validated Health Protection Scotland (HPS) data : Quarter 3 2019 (July-September)

		Healthcare Associated Rate per 100 000 bed days		Community Associated Rate per 100 000 population	
		GGC	National	GGC	National
***S. aureus* bacteraemia**	110 cases	22.3	17.5	5.7	7.4
***C. difficile* in age 15+**	77 cases	14.2	13.5	6.1	5.5
***E.coli* bacteraemia**	304 cases	41.3	40.3	44.6	44.2

Quarter 4 Oct-Dec

Validated Health Protection Scotland (HPS) data : Quarter 4 2019 (October - December)

		Healthcare Associated Rate per 100 000 bed days		Community Associated Rate per 100 000 population	
		GGC	National	GGC	National
***S. aureus* bacteraemia**	91	16.1	15.2	7.4	9.6
***C. difficile* in age 15+**	80	16.1	14.9	3.7	4.7
***E.coli* bacteraemia**	276	35.1	40.8	42.2	41.4

In conclusion the NHS Board is asked to:

- Note the HAIRT report
- Note the performance in respect of the AOP Standards for SAB, ECB and CDI
- Note the detailed activity in support of the prevention and control of Healthcare Associated Infection

From: Bagrade, Linda
Sent: 10 May 2021 11:40
To: Bowskill, Gillian [redacted]
Cc: Joannidis, Pamela [redacted]; Devine, Sandra [redacted]
Subject: RE: NICU E.coli Gentamicin Resistant.

Thank you Gillian, this is fantastic.
I will have to say that GM resistance monitoring is more useful for microbiology surveillance of resistance patterns to inform appropriate AB management but not for IC purposes, unless you know the reason why would we be concerned about GM resistance in NICU?
I will reply to South micro concerns once I get all info.

Linda

From: Bowskill, Gillian
Sent: 10 May 2021 09:39
To: Bagrade, Linda [redacted]
Cc: Joannidis, Pamela [redacted]
Subject: FW: NICU E.coli Gentamicin Resistant.

Morning Linda,

We have had one email from the lab indicating there may be possible increased ESBL Gent resistant, with one CHI number mentioned on the email. So looked at our GNB Tally an checked up on the sensitivities.

- January we had 1 Gent and Cipro resistant ESBL, 1 other E coli in January not an ESBL and Gent and Cipro sensitive.
- February we had 2 E coli, neither were ESBL and both were Gent and Cipro sensitive.
- April we had 1 Gent and Cipro resistant ESBL and 2 E coli Gent and Cipro sensitive.
- May we have 1 Gent and Cipro resistant ESBL and 1 E Coli not ESBL which is Gent resistant and Cipro sensitive.

So in total since January we have had:

- 5 E.coli Gent and Cipro sensitive.
- 3 ESBL Gent and Cipro resistant.
- 1 E.coli (not ESBL) Gent resistant but Cipro sensitive.

Let me know if there's anything you need us to do.

Thanks

Gill

From: Peters, Christine
Sent: 07 May 2021 17:03
To: Bagrade, Linda [redacted]; Harvey-Wood, Kathleen [redacted]; Bowskill, Gillian [redacted]; Johnson, Angela [redacted]; Anderson, Kathryn [redacted]; Brown, Mhairi [redacted]; Valyraki, Kalliopi [redacted]; Balfour, Alison [redacted]; Inkster, Teresa
Cc: [redacted]; Farmer, Eoghan [redacted]
Subject: RE: NICU E.coli Gentamicin Resistant.

Hi Linda,

I am not sure why there would not be a trigger for gent resistant coliforms as this has been an outbreak issue on the unit previously and that is part of the reason for the screening that has been in place for years.

We do not see gent and cip resistant ESBLs *E colis* regularly on the unit and we have noticed an increase in cases and the IPCT have been alerted. Given that there are increased cases requiring PAGS and IMTS on the unit with regard to other gram negatives, and in keeping with the learning from the CNR and Oversight Board reports, I would be consider all of these together in the context on the overarching situation on the unit. This is the reason for concerns being raised.

The use of SPC charts has also been challenged in the CNR and seems an inappropriate tool to pick up a problem so I am not sure what upper control would be appropriate using before escalating.

I hope this is of help in clarifying our concerns,

Kr

Christine

Dr Christine Peters
Clinical Lead
Consultant Microbiologist
QEUH
[redacted]

From: Bagrade, Linda
Sent: 07 May 2021 16:29
To: Peters, Christine [redacted]; Harvey-Wood, Kathleen [redacted]; Bowskill, Gillian [redacted]; Johnson, Angela [redacted]; Anderson, Kathryn [redacted]; Brown, Mhairi [redacted]; Valyraki, Kalliopi [redacted]; Balfour, Alison [redacted]
Cc: [redacted]; Farmer, Eoghan [redacted]
Subject: RE: NICU E.coli Gentamicin Resistant.

Hi,
We don't have a specific trigger based on resistance (GM=R) so I am very interested in data you have and why do you think it is a problem.
Enterobacter – PAG +action plan, reviewed and closed today.
Serratia –IMT process in progress, a lot on action plan and progress on actions will be reviewed next week. As part of discussion the numbers of GN in general were discussed but we are not reaching upper control limit.
S capitis – 1 case in April.

In summary -IPCT and the clinical team are aware of the situation, monitoring closely and at the moment there is no escalation beyond control limits.

Have a nice weekend,

Linda

Dr Linda Bagrade
Consultant Medical Microbiologist
Infection Control Doctor (Clyde Hospitals)

[redacted]

From: Peters, Christine
Sent: 07 May 2021 14:32
To: Harvey-Wood, Kathleen [redacted]; Bowskill, Gillian [redacted]; Johnson, Angela [redacted]; Anderson, Kathryn [redacted]; Brown, Mhairi [redacted]; Valyraki, Kalliopi [redacted]; Bagrade, Linda [redacted]; Balfour, Alison [redacted]
Cc: [redacted]; Farmer, Eoghan [redacted]
Subject: RE: NICU E.coli Gentamicin Resistant.

Hi Kathleen thanks,

There seems to be a few gent resistant E coli's in SCBU and NICU over past few weeks, in conjunction with the Serratias , Enterobacters and Staph capitis.

Linda/Pepi hve these organisms breached trigger points?

Kr

Christine

Dr Christine Peters
Clinical Lead
Consultant Microbiologist
QEUH
[redacted]

From: Harvey-Wood, Kathleen
Sent: 07 May 2021 11:52
To: Bowskill, Gillian [redacted]; Johnson, Angela [redacted]; Anderson, Kathryn [redacted]; Brown, Mhairi [redacted]; Valyraki, Kalliopi [redacted]; Bagrade, Linda [redacted]; Balfour, Alison [redacted]
Cc: [redacted]; Farmer, Eoghan [redacted]
Subject: NICU E.coli Gentamicin Resistant.

Hi

New isolate of a Gentamicin Resistant E.coli from NICU baby - details below
Isolate is ESBL negative. Previous recent Gentamicin Resistant E.coli have been ESBL positive.
Will send for typing to compare.
NICU to be informed and baby discussed at hand over this afternoon.

|Name: [redacted] BABY Order No: [redacted] |
|CHI: [redacted] DOB: [redacted] Sex: [redacted] Lab No: [redacted] |
|Location: Neonatal ICU RHC INV: RC |
|Spec. Type: Endo-Tracheal Aspirate Date col'd: 04.05.21 |
|Spec. Site: Date rec'd: [redacted].05.21 |
Date auth: [redacted].05.21
** INTERIM REPORT - Further report to follow **

| |
|CULTURE RESULT: |
| GROWTH: ANTIBS. a) b) c |
|a) Escherichia coli Isolated Amox R |
|b) sTrim S |
|c) Co-amox S |
|d) sCipro S |
|e) Gent R |
|f) sAmikacin S |

Regards
Kathleen

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 – Volume 14 – Miscellaneous Documents

A50611329