SCOTTISH HOSPITALS INQUIRY

Bundle of documents for Oral hearings commencing from 16 September 2025 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Witness Statements – Volume 4

Table of Contents

Scottish Hospitals Inquiry
Witness Statement of
Jane Grant

This statement was produced by the process of sending the witness a questionnaire with an introduction followed by a series of questions and spaces for answers. The introduction, questions and answers are produced within the statement.

Personal Details and Professional Background

1. Name, qualifications, chronological professional history, specialism etc. – please provide an up-to-date CV to assist with answering this question. Please include professional background and role within NHS GGC, including dates occupied, responsibilities and persons worked with/ reporting lines.

A. My full name is Jane Margaret Grant. I am currently retired but was previously the Chief Executive of NHS Greater Glasgow and Clyde from April 2017 to January 2025. I hold a BSc. Biological Sciences from Edinburgh University (1983) and a Master of Business Administration (MBA) from Strathclyde University (1996).

I joined the NHS in 1983 and worked in the NHS for 41 years before my retiral in January 2025. During my career, I have worked within 5 Health Boards and have detailed the positions in the table below.

DATES	POSITION	LOCATION
1983-1986	Management Services Officer	NHS Highland
1986-1988	Asst Administrator / Personnel Officer	NHS Highland
1988-1989	Planning Officer	NHS Lothian
1989-1990	Deputy Administrator, Stobhill Hospital	NHS Greater Glasgow and Clyde
1990-1992	Acute Services Administrator	NHS Lanarkshire
1992-1994	Resource Management Project Manager	NHS Lanarkshire
1994-1999	Deputy Director of Planning and Information	NHS Lanarkshire
1999-2000	General Manager, Hairmyres Hospital	NHS Lanarkshire
2000-2005	General Manager, Surgical Division, North Glasgow	NHS Greater Glasgow and Clyde
2005-2006	Interim Chief Executive, North Glasgow	NHS Greater Glasgow and Clyde
2006-2009	Director of Surgery and Anaesthetics	NHS Greater Glasgow and Clyde
2009-2013	Chief Operating Officer, Acute Division	NHS Greater Glasgow and Clyde
October 2013-March 2017	Chief Executive	NHS Forth Valley
April 2017-January 2025	Chief Executive	NHS Greater Glasgow and Clyde

Governance Reporting Structures within NHS GGC

2. For the period you were Chief Executive explain how the governance structure and reporting lines to the NHS GGC Board and its first line of subordinate committees received information and made and authorised decisions in respect of (a) the procurement of the new Southern General Hospital (that became the QEUH/RHC), (b) the safe and efficient operation of the water and ventilation systems of the QEUH/RHC, (c) the management and reduction of risks to patient safety from infections that had the potential to be connected to the environment (particularly the water and ventilation systems) of the QEUH/RHC, (d) the need for and authorisation of works to improve or remedy deficiencies in the water and ventilation systems of the QEUH/RHC and (e) the processes put in place to ensure that disclosure by staff of evidence of wrongdoing, failures in performance or inadequacies of systems was encouraged and reacted to by the Board to ensure that the safety of patients and the best value use of public funds were protected.

You should be aware that **Hearing Bundle 13** contains minutes of the Board Infection Control Committee and the Acute Infection Control Committee and that **Hearing Bundle 11** contains minutes of the Board Water Safety Group.

A. Within NHSGGC, there are Standing Financial Instructions, Standing Orders and a Scheme of Delegation which define how the NHS Board should operate and what decisions should be taken to the NHS Board itself and to each committee. The Standing Orders define the matters that are reserved for the NHS Board. The Scheme of Delegation allows for authority to be delegated from the NHS Board to its committees as deemed appropriate. Each committee has a Terms of Reference which outlines their key duties and remit. The NHS Board's corporate objectives are each allocated to a lead committee to ensure clarity on where issues should be considered. All committees consider the key risks associated with their area of accountability.

The Scheme of Delegation within NHSGGC is a framework that outlines the decision-making authority and responsibilities across different levels of the organisation. This framework is in place to ensure that decisions are made effectively, by the appropriate individual or group, while maintaining accountability and governance across the Health Board. In an organisation of the size and complexity of NHSGGC, with a budget of £4.4 billion and approx. 41,000 staff, it is essential that there is a clear scheme of delegation and that authority is delegated throughout the organisation.

In NHSGGC, the Scheme of Delegation operates by clearly defining what powers and responsibilities are delegated to various officers, committees and groups within the organisation. It also outlines the limits and controls around these delegations to ensure that the organisation functions effectively while meeting its regulatory, clinical and financial objectives.
The Scheme of Delegation is designed to ensure that NHSGGC complies with national health policies, Scottish Government directives and relevant legislation, including financial, clinical and staffing requirements.

During the period that I was the Chief Executive the NHS Board operated a number of sub committees reporting directly to the Board. For example, clinical issues were reported to the Clinical and Care Governance committee, Acute Services issues were reported to the Acute Services committee and Finance, Planning and Performance issues were reported to the Finance, Planning and Performance committee. The Staff Governance committee supported the staff governance issues.

As outlined within the Standing Orders and Scheme of Delegation, certain decisions are reserved for the full Board meeting and the Chair AND THE Chief Executive, along with the Director of Corporate Services and Governance, would agree which issues should be escalated to the NHS Board outwith the scheme of delegation. The non executive Chairs of the subcommittees were also involved in that process, when appropriate.

Regular updates were given to the subcommittees and the NHS Board on a range of issues associated with QEUH and RHC. Issues associated with QEUH and RHC were also discussed at Board seminars as, by the nature of the content, some of the discussions were commercially sensitive.

I understand that a very significant volume of documentation has previously been submitted to the SHI indicating the timelines and details of issues discussed and reported at the NHS Board sub committees and the NHS Board itself. These include a water and Cryptococcus timeline (see **Appendix B**) and the governance associated with Ward 2A (see **Appendix C and Appendix D**), documentation relating to the Internal review (see **Bundle 43, Volume 2, Document 3, Page 34, Document 9, Page 108, Document 31, Page 343 and Document 37, Page 371**), details of the actions and reporting of the 2017 SBAR (see **Appendix E**), and actions associated with the AARG (**Bundle 52, Volume 3, Document 81, Page 589**). It is, therefore evident that there was substantial reporting to the NHS Board and its sub-committees on the QEUH / RHC issues.

a) Would you agree with Robert Calderwood who has stated in his statement that "The Chief Executive is charged with discharging all of the responsibilities that the Scottish Government place on Health Boards and those tasks are delivered through a scheme of delegation through a series of, again, operational chief officers and directors"?

A. NHS Boards are delegated responsibilities by the Cabinet Secretary to plan, commission and deliver healthcare services and take overall responsibility for the health and wellbeing of the population they serve.

The Chief Executive is responsible for the provision of executive leadership and strategic vision for the NHS Greater Glasgow and Clyde healthcare system. This includes leadership and influence across a wide range of inter-agency partners. The role involves joint working with six local Health and Social Care Partnerships (HSCPs), including close working with their Local Authority Chief Executives, as well as colleagues in the corporate departments and the Acute Division to continue to deliver the multiple system-wide interventions at regional and national levels.

The Chief Executive is accountable to the Board Chair, the Director General for Health and Social Care at the Scottish Government and, as the Accountable Officer, to the Scottish Parliament for the appropriate use of public funds and for ensuring the regularity, propriety and value for money in the management of the organisation.

The Chief Executive is responsible for ensuring that health and social care services within NHSGGC are delivered in line with national policy and health and social care priorities as directed by the Scottish Government.

As outlined elsewhere in my statement, in an organisation of the size and complexity of NHSGGC, with a budget of approx. £4.4 billion and 41,000 staff, it is essential that there is a clear scheme of delegation and that significant authority is delegated to operational and corporate Directors and managers to ensure the organisation operates efficiently and this is in place in NHSGGC.

b) Recognising that you were appointed in April 2017 do you now accept that the NHSGGC Board should have been briefed about the fact that the single rooms of the hospital had been deliberately built with a ventilation system that supplied air at half the rate than that called for by Scottish Government Guidance as soon as that fact became known to the Executive Board members?

A. As the Hospital had been open for more than 2 years, I would have anticipated that the NHS Board members would have been briefed prior to my appointment as the Chief Executive.

3. For the period you were Chief Executive explain what informal and formal meetings or groups met outside the structures you have described in the previous question that made decisions about the issues listed in Question 2.

A. During the period when I was the Chief Executive, there were numerous formal and informal meetings which took place in respect of a number of the issues outlined in Question 2.

There were a range of Infection Control meetings including the Board Infection control committee and the Acute Infection control committee which oversaw issues relating to infection control. There were also PAG and IMT meetings when issues arose.

Routine estates and facilities meetings took place on particular issues in relation to these areas including the Water Safety Group.
During 2019, when the internal review process was established, a Programme Board was set up to ensure the different strands of work were progressing in an appropriate manner. There was also a Gold Command group established at QEUH to ensure all the recommendations associated with the published reports were actioned.

During November 2020, an Executive Oversight Group (EOG) was established to co-ordinate all aspects of the QEUH issues as well as a number of other Public Inquiries at a later stage. I chaired that meeting and the membership included the Corporate Directors. Robust programme management processes were put in place as this was a complex and far reaching situation and a Programme Manager was recruited to lead this work.

a) What was the formal remit of the Programme Board in 2019? When did the Programme Board meet and who were its members?

A. The Programme Board was formed to oversee the Internal Review of issues associated with the QEUH / RHC as agreed by the NHS Board on 19 February 2019. It oversaw three principal areas of activity etc.:

- Review of Facilities and environmental issues
- Review of Capacity and Flow
- Review of clinical outcomes

Each area required a separate strand of work led by a Director and it was required to report back to the Programme Board on progress against milestones prior to progress being reported to the CMT, Board Standing Committees and the NHS Board.

The Programme Board met monthly throughout 2019 and its membership included the Chief Executive who chaired the Programme Board, the Director of Estates and Facilities who led the Facilities and Estates work stream, the Chief Operating Officer who led the Capacity and Flow work stream and the Medical Director who led the Clinical Outcomes work stream.

b) With reference to your response to question 3 your statement to the Inquiry of May 2025:
What was the function, scope and remit of the internal review process you described? Who carried it out?

A. The purpose of the process was to ensure that appropriate action was being taken in relation to the three areas outlined in the NHS Board paper of February 2019, namely a review of the facilities and environmental issues in respect of the QEUH / RHC, a review of capacity and flow to assess the position in 2019, against the original model and planning assumptions and a review of clinical outcomes over the period.

The workstream associated with the Estates and Facilities elements was led by the Director of Estates and Facilities with the scope being to systematically consider a range of issues including the initial contract, design, commissioning and maintenance. It was the intention that this review would provide further information for NHSGGC to recommend potential actions to be taken forward. It was agreed that this workstream would report to the Finance, Planning and Performance committee.

With regard to the Capacity and Flow workstream, it was led by the Chief Operating Officer with the overall aim of assessing the capacity and flow issues since the opening of the QEUH / RHC and also to seek an external expert review of the current capacity and flow processes in 2019. The issues included the consideration of the planned demand profile of minor injuries, the assessment unit and the Emergency department itself against the original planning assumptions. This workstream would report to the Acute Services Committee.

In relation to clinical outcomes, this work was led by the Medical Director and was to ensure a robust assessment of overall clinical quality and safety. The main areas to be considered were the Hospital Standardised Mortality Ratio (HSMR), Infection reports, external reports undertaken during the period, patient experience reports and benchmarking with other acute sites across Scotland, with this workstream reporting to the Clinical and Care Governance Committee.

A Programme Board was established, chaired by the Chief Executive with a view to the work being completed within a few months and providing a comprehensive paper to the NHS Board, following consideration by the CMT and Board sub-committees as outlined.

4. During the period you were Chief Executive how was it decided which issues, decisions and reports would be escalated to the full Board or one of first line of subordinate committees?

A. As outlined above, the Standing Financial Instructions, Standing Orders and Scheme of Delegation provide a framework within which the NHS Board operates. These documents outline what decisions are reserved for the NHS Board and what should be considered by each committee. The Terms of Reference for each committee are agreed and reviewed annually and include the key remit and responsibilities of each Committee.

The Information Assurance Framework, which has been approved by the NHS Board, also outlines what information should be provided to each committee and with what frequency.

5. During the period you were Chief Executive what procedures were put in to ensure all significant questions about the issue listed in Question 2 were being taken to the Board or one of first line of subordinate committees, discussed and actioned?

A. The routine Board-level governance structures were utilised to ensure significant matters were reported to the Board committees as appropriate and were underpinned by the Corporate Management Team. As outlined in Q2, there was considerable reporting of a range of issues associated with QEUH / RHC to the NHS Board and its subcommittees.

Major issues were reported to the Clinical and Care Governance committee, the Acute Services Committee and the Finance, Planning and Performance Committees as outlined in their Terms of Reference.

Routine reports were also made to the NHS Board on the Oversight Board progress, CNR and internal reviews.

Serious incidents, including regulatory non-compliance were also escalated to the subcommittees and / or NHS Board, depending on their severity.

Board seminars were also utilised to update the Board members on any key issues, including the litigation claim.

The NHS Board would also approve any significant supporting business cases where remedial actions were required.

a) With reference to your response to questions 4 and 5 in your statement to the Inquiry of May 2025, you discuss the scheme of delegation under which NHSGGC operates. Would you expect that the Terms of reference of the Laboratory Executive Board (NHSGHLPEB) as approved by the Performance Review Group (see **Bundle 34, Document 21 at Page 152**) is part of that NHSGGC scheme of delegation?

A. My recollection is that, at the time of its inception, the Performance Review Group would have been the governance committee tasked with an overview of the project and, thus, it would have been appropriate for that committee to consider and agree the Terms of Reference. As outlined previously, the volume and complexity of issues that occur in NHSGGC is very significant and, thus, a number of issues are delegated to Board committees to ensure appropriate oversight as it would be extremely challenging to have a detailed consideration of all issues at the main bi-monthly Board meeting.

b) What responsibility does a Board staff member who is a voting member of a committee or executive board created under terms of reference or a remit approved by a Board subcommittee or group have for the work of that Committee or executive board?

A. In relation to such committees or executive boards, it would be incumbent on members to ensure that the key issues were being considered and any matters of significance were considered with appropriate expert input. A number of issues are generic in nature, while others are more technical / clinical and members of such committees would require to rely on their qualified and experienced colleagues to advise on such issues.

6. What procedures were put in place by the Board to ensure monitoring, progress and resolution of issues related to the list in Question 2 that had been reported to the Board or one of first line of subordinate committees?

A. Once again, the Board-level governance structures were utilised to ensure progress was being made. Issues were noted on the appropriate Rolling Action

List which each committee maintains, as does the Corporate Management Team, and progress against these Rolling Action Lists is reviewed at each Committee to ensure Board members are assured that the appropriate progress is being made. If the Board members were not content, then further actions would be agreed to rectify the situation. Actions are not removed from the list until Board members are content that they have been concluded.

Individual Chairs of governance committees also sought updates and papers on key issues if they considered further information was required.

7. Please refer to Dr Redding's witness statement at paragraph 186 **(Witness Bundle – Week Commencing 2 September 2024 – Volume 3, Document 2, Page 63).** Dr Redding states, "The SMT and Clinical Governance Committees take decisions on what information is discussed at meetings of the full board." Is this statement correct? Please explain your answer.

A. I am assuming that Dr Redding's reference to the SMT relates to the Corporate Management team (CMT), although each sector / Directorate / HSCP has its own SMT. As previously outlined, the Standing Orders and Scheme of Delegation outline what decisions should go to the NHS Board. NHSGGC also, more recently, has an Information Assurance framework which has been agreed by the Committee Chairs and then the full Board which outlines precisely what information should go to the NHS Board. These documents ensure that there is a structured process which ensures the NHS Board is informed on relevant issues at the correct level within the organisation.

Should there be any ambiguity about whether any issues should go to the full Board, it would be routine to consult the Director of Corporate Services and Governance and seek a view, along with consulting the Board Chair and the Chairs of the relevant committee and the Chief Executive, when appropriate.

In addition, during this period there was ongoing, regular dialogue with the Board Chair to ensure that any issues considered relevant were reported to the subcommittees of the NHS Board as well as the Board itself.

8. Please refer to the NHSGGC Audit Scotland audit reports 2016/17 and 2017/18 (**Bundle 29, Document 13, Page 485 & Bundle 29, Document 14, Page 523**) What led to the changes in the Board's governance structure in 2016/17, specifically the establishment of new committees and the subsequent requirement for the chairs of the standing committees to update on discussions and decisions made at their respective committees (see **Bundle 29, Document 14, Page 532**)? Was the Board satisfied that the implementation of these changes enhanced and strengthened governance at GGC?

A. I was not in post during the period 2016/17 so do not have a clear understanding of what led to the changes during that year. Having read the report, it refers to a review of governance which took place from August 2016 when I was not employed within NHSGGC.

With regard to the 2017/18 changes, this was undertaken to ensure that the full NHS Board had greater oversight of the decisions being made with significant issues being raised at committee level while maintaining a degree of delegation due to the size of the Board's accountabilities and responsibilities.

My recollection is that feedback was sought from Board members and they were generally satisfied that issues were being addressed and that the new arrangements had enhanced and strengthened governance in NHSGGC.

In addition, an annual survey of NHS Board members was undertaken which covered a range of questions relating to this area. Feedback from these surveys was discussed by the full Board and changes were instigated following these discussions, where appropriate.

9. The Inquiry understands you were a member of the Acute Services Strategy Board. When were you appointed to the Acute Services Strategy Board, what was your role and what was purpose of the Acute Services Strategy Board? What decisions were made by Acute Services Strategy Board whilst you were a member in respect of issuing of the completion certificate, approval of changes in the respect of ventilation systems that were not consistent with the terms of SHTM 03-01 (2009) draft, the use chilled beams in clinical areas, the ventilation systems of what became Ward 2A (RHC), Wards 4B, 4C, 5C and 5D of the QEUH and design of the ventilation systems of isolation rooms?

A. During the period when I was the Chief Operating Officer, I was a member of the Acute Services Strategy Board (ASSB). I cannot recall precisely when I became a member due to the passage of time. My recollection is that the ASSB provided a high level, strategic overview of the implementation of the Acute Services Review, which was the strategic direction that the NHS Board adopted to redesign its acute services. In respect of the QEUH / RHC campus the Acute Services Review involved the amalgamation of inpatient services from the Victoria Infirmary, the Western Infirmary and the Southern General Hospital onto the QEUH site, along with the movement of Yorkhill to the RHC.I recall that it consisted of a number of the NHSGGC Corporate Directors, Scottish Government colleagues and the Project Director. It was chaired by the NHSGGC Chief Executive at that time, Robert Calderwood.

I cannot recall the Acute Services Strategy Board making any decisions relating to the areas outlined in this question. This was a high level group which would not have had the technical expertise to make an assessment of the issues relating to ventilation systems and chilled beams.

I am assuming that the completion certificate was not issued until nearer the opening of the hospital and, as I left NHSGGC two years before then, I have no recollection of any discussion on this matter. Again, I am not sure that this would have been an appropriate forum to agree that issue as presumably the Project team would have the technical expertise to sign it off and, thus, I am unclear as to whether this would be an appropriate decision for the ASSB to make.

10. When you were Chief Executive what reporting processes and protocols were in place between NHS GGC and

(i) HPS
(ii) Scottish Government

Please provide details in respect of:

i) The reporting process
ii) Circumstances under which reporting would take place

iii) Actions then taken

A. The standard reporting processes were in place between HPS and NHSGGC. The infection control team would be better placed to provide a detailed response to this area. In addition, the advice of HPS was sought on a number of key issues and members of HPS were involved in a number of the key IMT meetings.
In terms of the Scottish Government, the processes were different at different stages. In the beginning, the nature of the dialogue with Scottish Government was of a routine nature which consisted of briefings from NHSGGC through HPS to the Scottish Government which is the recognised route for communication. In addition, there were discussions between our local team and HPS and members of the CNO's team. NHSGGC sought to utilise the expertise of colleagues both within HPS and the CNO's Directorate at the Scottish Government as the issues progressed. As outlined in Q11, on 20 March 2018 the Scottish Government wrote to the Medical Director requesting that the national support framework be implemented which meant that HPS and the Scottish Government had a pivotal

role in these issues from that time. In addition, members of HPS and HFS attended the IMT. As the issues became more challenging, there were more frequent discussions and, following NHSGGC's escalation, there were a significant number of meetings to discuss the issues, both formally and informally.

During the escalation period, an Oversight Board was established by the Scottish Government and NHSGGC were required to submit papers and provide presentations to this Oversight Board, which was chaired by the Chief Nursing Officer, Professor Fiona McQueen. I understand that she, in turn, briefed other members of the Scottish Government team on progress. At this time, the Scottish Government played a significant role in infection control issues and NHSGGC were required to ensure the agreed actions were addressed.

In person meetings also took place with Scottish Government Directors and with the Cabinet Secretary.

a) With reference to your response to question 10 in your statement to the Inquiry of May 2025 did the Oversight Board have the power to direct action by NHSGGC? If it did, please provide examples of when and how this was done?

A. The Oversight Board was appointed by the Scottish Government as NHSGGC had been escalated to Level 4 of the performance framework and that meant that, for specific areas, the Oversight Board had a lead role and could, therefore, direct issues. Simultaneously, an interim Director of Infection Prevention and control was appointed by the Scottish Government, initially Prof M. Bain and then, Professor A Wallace. In effect they assumed responsibility for the IPC team and, thus, were closely aligned with the work of the Oversight Board. Three subgroups were established from the Oversight Board including Infection Prevention and Control, Communications and Engagement and a Technical Group. All three groups sought assurance on the key aspects of the work and

NHSGGC colleagues provided many papers and presentations to the subgroups as well as to the Oversight Board.

The Terms of Reference for the Oversight Board outline that NHSGGC would work with the Oversight Board in developing plans and would take responsibility for delivery. With regard to examples, the Oversight Board and its subgroups required that all press releases were reviewed by the Scottish Government prior to their issue. Work was also undertaken in relation to the dedicated Facebook page for families. Processes were reviewed within the infection control subgroup to ensure alignment with national policy and that work was undertaken under the guidance of the Oversight Board.

It was the intention that NHSGGC worked collaboratively with the Oversight Board to address any emerging issues from the consideration of the Oversight Board and that approach was adopted.

11. Did you have any occasion to report to the Scottish Government that an aspect of the water or ventilation system of the QEUH/RHC was not as the clinicians of NHS GGC expected it to be, was not in compliance with the relevant STHM or gave rise to a potential issue of patient safety? If yes, when, how and why? If not, why not?

A. The Scottish Government was aware of the return of the adult BMT to the Beatson West of Scotland Cancer Centre in 2015 for remedial action to be taken. Scottish Government colleagues were also members of the ASSB, although I believe that detailed, technical issues we not routinely discussed at that forum.

On 20 March 2018, the Scottish Government wrote to the Medical Director requesting that the national support framework be invoked and thus HPS and the Policy Unit were fully involved in the process. This, in effect, gave HPS and the Scottish Government a central role in the approach from that time.

As outlined in Question 10, regular dialogue was taking place with Scottish Government on a number of issues and, from March 2018, they played a pivotal role in the process, although they had been involved prior to that time.

NHSGGC found itself in a unique position where no other Health Board had experienced this set of circumstances and as outlined were seeking external support and expertise during this period, including from HFS, HPS and the Scottish Government.

a) Was the Scottish Government or NHS NSS told of the issues that arose with the ventilation in the Schiehallion Unit in June 2015 and that HEPA filters had not been fitted in Isolation Rooms in Ward 2A, ITU, HDU? If so, by whom and when?

A. As I was not in post in June 2015, I am unable to answer what communication there was with the Scottish Government and NSS in June 2015. They were involved in a number of areas throughout the whole QEUH / RHC project and, since its completion, in relation to some specific issues, including water and ventilation throughout the overall period, but I am unaware of their knowledge of that level of detail at that time. I understand that NHSGGC has provided a large number of documents detailing their involvement over a wide range of issues.

b) In your response to question 11 in your statement to the Inquiry of May 2025 you state that “The Scottish Government was aware of the return of the adult BMT to the Beatson West of Scotland Cancer Centre in 2015 for remedial action to be taken”. You have not answered the question in respect of Ward 2A RHC. When the Scottish Government was told that the ventilation system was not as the clinicians of NHSGGC expected it to be, was not in compliance with the relevant SHTM or gave rise to a potential issue of patient safety? If yes, when, how and why? If not, why not?

A. I am not aware of precisely when the Scottish Government became aware of the position with regard to the ventilation system in Wards 2A/B. It is difficult to provide precise clarity as there were multiple routes of communication to the Scottish Government either directly or through other channels such as HPS.

12. The Inquiry understands from evidence heard that as Chief Executive you were the Duty Holder in respect of the water system and its maintenance (see **Bundle 6, Document 29, Page 122**). What is your understanding of the roles and responsibilities incumbent on you in respect of this role? How does your role as Duty Holder relate to the work and responsibilities of the Board Water Safety Group? What was your understanding of your responsibilities as Duty Holder for making appointments of Authorised Person (Water) and Authorising Engineer (Water) for the new SGH?

A. In relation to the Water Policy, the Duty Holder refers to the individual or group responsible for ensuring that water systems are safely managed and that the risks associated with waterborne pathogens are properly controlled. The Duty Holder’s role is addressing compliance with water safety regulations, The role involves strategic oversight of appropriate resources and structures to manage water safety risks.

The Chief Executive or Board must appoint a Responsible Person (Water) who is qualified, competent and has the authority to oversee the management of water safety across the healthcare facilities. In reality, the Chief Executive role relies on this Person to implement the required actions. This person is typically a senior estates manager with specialist knowledge of water systems and infection control processes. The Chief Executive or NHS Board delegates the operational responsibility for water safety to the Responsible Person.

The Responsible Person has primary responsibility for ensuring that the water systems are managed safely and that all necessary precautions are in place to minimise the risk of waterborne infections arising. This person acts as the primary point of contact for water safety within the organisation. In an organisation the size of NHSGGC, significant reliance is placed on this Person to undertake the necessary tasks, through the delegated structure. At the time of the QEUH / RHC opening, I was not in post and the initial work and establishment of the key roles and procedures was prior to my appointment. As the hospital had been operational for 2 years when I became the Chief Executive, my assumption was that these roles were fully in place before my return to NHSGGC.

a) When you became Chief Executive what steps did you take to satisfy yourself that appointments had been made for the roles of Authorised Person (Water) and Authorising Engineer (Water) for the QEUH/RHC?

A. There are a very large number of areas where delegated arrangements require to be in place across an organisation of the size and complexity of NHSGGC and, thus, as Chief Executive, significant reliance is placed on those who have the expert knowledge in their subject matter areas to ensure all appropriate arrangements are in place for areas such as this one.

The hospital had been opened for over 2 years when I returned and took up the post of Chief Executive. As such, I commenced that role on the basis that all

necessary arrangements and appointments were in place and this issue was never raised with me as a concern until the emergence of the reports in 2018. On being made aware of these reports in 2018, I immediately took steps to ensure that all the recommendations continued within them were fully addressed, including in relation to strengthening the arrangements for the training, clarity of roles and paperwork associated with them.

b) With reference to your response to question 12 in your statement to the Inquiry of May 2025, and in light of the terms of the Water Systems Safety Policy (see **Bundle 20, Document 95, Page 1965**) when you became Chief Executive:

(i) What did you do to familiarise yourself with the Health & Safety Commission's Approved Code of Practice and Guidance L8 (ACOP L8) – Legionnaires Disease, The control of legionella in water systems"

(ii) What did you do to familiarise yourself with Chief Executive's letter CEL 08 (2013) "Water sources and potential risk to patients in high risk units – revised guidance" (see **Bundle 18, Volume 2, Document 114**)?

(iii) How did you ensure that adequate resources were provided to meet the Water Systems Safety requirements at the QEUH?

(iv) The Inquiry has heard evidence that from 2015 Estates staff considered there were inadequate numbers to fulfil their roles and requirements. This appears to be reflected in your answer to Question 41. What steps did you take in 2017 to ensure that there were sufficient staff in the Estates team at QEUH to manage the water and ventilation systems in compliance with guidance and statutory requirements?

(v) In 2017, how did you ensure that the Water Systems Safety Policy was being implemented at all levels?

(vi) In 2017, how did you review and monitor the operation of the Water System Safety Policy through the Board Corporate Management Team and ensuring that clear guidelines are provided for those tasked with legislative and statutory requirements?

(vii) What awareness did you have that by 2017 the Infection Control Manager had ceased to attend meetings of the Board Water Safety Group and that responsibility for chairing that group had largely devolved to Mary Anne Kane?

A. I relied on the Director of Estates and Facilities to ensure that the appropriate mechanisms were in place to address the issues outlined in these documents. It would be extremely difficult for a Chief Executive to familiarise themselves with the current state of play with all guidance purporting to the massive range of technical, clinical and corporate areas that come under their remit. As the Chief Executive of NHSGGC, with a budget in excess of £4billion and approximately 41,000 staff, it is essential that issues are dealt with by senior colleagues and their teams to ensure the Health Board functions effectively. No issues were brought to my attention that led me to believe that the mechanisms were not in place to ensure compliance.

Again, I do not recall any issues being escalated to me in relation to resources associated with the Water Systems Safety requirements at QEUH. This is an issue that I would anticipate the Director of Estates and Facilities would deal with as he would have had the expertise and experience in relation to these matters, along with access to a significant budget and would have the ability to flex his resources should he consider that any areas required additional input. In addition, there is an internal financial process to seek additional funding through the development of a business case for consideration alongside any other proposals to the CMT.

However, it is important to note that all Health Boards are required by the Scottish Government to live within their financial means and, while any significant patient safety issues should always be addressed, the fiscal position has been challenging over the last few years and Directors have been required to deliver recurring savings every year from their budgets.

In relation to my response to Question 41, my response relates to specific senior individuals rather than a generic resource issue. It was evident that, in the period immediately following handover, there were a large number of technical issues still being addressed which placed significant pressure on the senior estates team.

The assurance process would have been addressed through the E&F governance forums, the Water Safety Group and the BICC.

I was not aware that the Infection Control Manager had ceased to attend the meetings but would anticipate that any such concerns would be addressed through the routine line management arrangements.

c) On the second page of the Chief Executive's letter CEL 08 (2013) "Water sources and potential risk to patients in high risk units – revised guidance" (see **Bundle 18, Volume 2, Document 114**) makes reference to the use of the Board's Annual Controls Assurance process. Why did the Controls Assurance process of NHSGGC at Board or Executive Board Member level fail to notice that no L8 Risk Assessment had been reported to the Board Water Safety Group for the QEUH for three years after handover?

A. I would have anticipated that these issues would have been addressed by the Project team and Director of Estates and Facilities through their routine governance channels. In my experience, it would not be the usual process that such issues were considered by the full NHS Board, rather that the relevant technical experts and Directors would address them.

I would have anticipated that any material issues would have been brought to the attention of the CMT in the period after the opening of the new hospital and I cannot answer why that was not undertaken as I was not in NHSGGC at that time.

Significant issues associated with the water were not highlighted to me until Spring 2018 when the IMT process identified a potential link to the water supply so, until that time, I was unaware of there being any significant issues associated with the water supply.

13. What if anything were you advised by your predecessor upon commencing your role as Chief Executive in respect of the risk assessment and maintenance of the water system at the QEUH/RHC?

A. I was not advised of any issues in respect of the risk assessment and maintenance of the water system at the QEUH / RHC by my predecessor.

a) With reference to your response to question 13 in your statement to the Inquiry of May 2025, did you have a handover note, meeting or briefing from Robert Calderwood that set out any issues with the building of the QEUH?

A. There was only a short period of time between me being appointed as Chief Executive and Robert Calderwood's retiral. During that time my recollection is that I met in person with him on two occasions to discuss current issues. I do not recall him raising any issues in relation to the building of the QEUH and there was no briefing or handover note provided on the building of the new hospital

14. Were you aware when appointed of the requirement for a L8 Pre-occupation Risk Assessments to be undertaken in advance of the QEUH opening and for regular L8 Risk Assessments to and Authorising Engineer (Water) audits to be carried out once the hospital was open? If not, why not?

A. At the time of my appointment, I was unaware of the requirement for a L8 Pre-occupation Risk Assessment to be undertaken in advance of the QEUH opening.

By the time I had returned to NHSGGC, the hospital had been open for 2 years so I would have assumed that all the appropriate assessments had been completed at the time of it becoming operational.
In addition, these are areas which require a level of technical expertise and knowledge which, as Chief Executive, I do not possess in order to give an informed view. I would expect the Project Director and his team to have completed the appropriate tasks and to ensure that any outstanding issues were addressed at the time of identification and on an ongoing basis.

a) When did you become aware that an L8 Pre-occupation Risk Assessment had been carried out in 2015 and how did you find out?

A. My recollection is that I became aware of the L8 Pre-occupation Risk Assessment at the end of June 2018 following discussion with Professor Steele who, at that time, was working within NSS. As outlined above, actions were put in place immediately following that discussion to address outstanding issues, including the appointment of additional technical expertise to ensure that the issues were addressed swiftly and comprehensively.

b) With reference to your response to question 14 in your statement to the Inquiry of May 2025 you explain that at the time of your appointment you would have assumed that all the appropriate assessments had been completed at the time of the QEUH becoming operational. Do you accept that delegation still requires the person delegating to undertake some level of supervision over those to whom responsibilities have been delegated which includes, as a bare minimum, ensuring that the delegated tasks are being performed?

A. I would expect that Directors, as very senior colleagues, would ensure that the essential elements of their role were being addressed. At this level in the organisation, Directors have a high degree of autonomy and responsibility for their own areas.

I had a number of 1 to 1 meetings with my direct reports when they could raise any issues of concern with me. During these meetings, we did discuss current issues, actions and any ongoing challenges so I would have expected that any concerns would have raised with me then. In addition, I had regular dialogue with my corporate Director colleagues on a wide range of issues. There was also an informal weekly Directors meeting with all Directors present so there was plenty of opportunity to raise any issues of concern.

c) The Inquiry understands that you were a voting member of the Performance Review Group and the new South Glasgow Hospitals and Laboratory Project Executive Board (NSGHLPEB) during Stage 1 of the new SGH project.

The NSGHLPEB was set up by the Performance Review Group on 19 May 2009 (see **Bundle 34, Document 21, page 145 at page 153**). You were then Chief Operating Officer (Interim) of NHSGGC.

The NSGHLPEB had delegated authority to conduct and conclude negotiations at project critical moments and was required to "oversee the management of change control processes" so that "any change which impacted on the project must be authorised by [it] before it can be implemented (see remit at **Bundle 34, page 152**).

The Inquiry has heard evidence from Mr. Seabourne and Ms Byrne that no such change control system existed. Please review the meeting of the NSGHLPEB on 7 December 2009, shortly before the contract was concluded on 18 December 2009, (see **Bundle 42, Volume 2, Document 18, Page 86**), that suggest the NSGHLPEB did not "conduct and conclude negotiations" but rather this was left to the Project Team (see item 5). This was also Mr. Seabourne's evidence.

(i) Why was there no change control process in place for the Stage 1 of the new SGH project?

(ii) Considering the above, how did the contract come to be signed on 18 December 2009 despite the PRG not being asked to authorise any changes and NSGHLPEB not conducting and concluding the negotiations?

A. Due to the passage of time as this was 16 years ago; I cannot recall why there was no change control process in place for Stage 1 of the new SGH project. However, it would be challenging for a corporate, multidisciplinary group such as the NSGHLPEB to conduct and conclude negotiations and it would have been my expectation that the Project Director would advise the group of any material issues. In relation to my role, my recollection is that, at that time, any significant service issues that would involve a major change in the service delivery profile would have been discussed at that forum but it would be unlikely that any detailed negotiations would have been undertaken by the overall committee but rather would have been delegated to the Project Director, his team and their Advisors.

Involvement in the Procurement of the New SGH in Your Role as Chief Operating Officer for NHS GGC (2009 – 2013)

15. What role did you have as Chief Operating Officer for NHS GGC from 2009 to 2013 in the procurement of the new SGH?

A. As Chief Operating Officer, I attended the full NHS Board meetings (although I was not a Board member) and so was present when discussions and decisions were made. I was also a member of the Acute Services Strategy Board.

16. Describe your involvement and understanding, if any, in the removal of the maximum temperature variant in May/June 2009? **(**see **Bundle 17, Document 26, Page 1063 and Bundle 26, Document 3, Page 247)** When did you first become aware of this decision? Why was the decision taken and by whom? What was the Board level knowledge/ input into this decision? What risk assessments, if any, were taken prior to making this decision? What was the impact, if any, in removing the maximum temperature variant?

a) Describe your involvement and understanding, if any, in the decision to use chilled beams. Why was the decision taken and by whom? What was the Board level knowledge/ input into this decision? What risk assessments, if any, were taken prior to making this decision? What was the impact, if any, in using chilled beams?

b) Who provided the specification for environmental data relating to air change rates, pressure differentials and filter requirements?

A. I had no involvement or understanding of the removal of the maximum temperature variant in May / June 2009. This is not an area that I would have any technical relevant expertise and would not have been involved in any such decisions.

I do not recall ever being told about this issue at the time and thus have no appreciation of the Board level knowledge, awareness of risk assessments or any impact. These types of issues would have been routinely dealt with by the Project team who had the appropriate technical knowledge.

In terms of chilled beams, again, I do not have the technical expertise to make an informed decision on their use. I had no input to the decision making process as, again, it would require a level of technical knowledge that I do not have.

I am unaware who provided the specification for environmental data relating to air change rates, pressure differentials and filter requirements. As a Chief Executive or Chief Operating Officer of an extremely large and complex organisation, these are not issues that I would expect to be involved in, due to their technical nature.

a) When did you first become aware that the QEUH used Chilled Beams in most single patient rooms and how did you find out?

A. Following a review of the available documents, the use of “cooler beams” was mentioned during the discussions relating to the formation of the SBAR in 2017. The use of chilled beams was identified following the publication of the AECOM report. In line with a number of other issues, there appeared to be differing views on their usage and as previously indicated, I did not have any knowledge of chilled beam technology and I would expect that those with the appropriate technical expertise within the Project team and its advisors would be best placed to comment on this area.

17. Describe your understanding and the involvement of you as Chief Operating Officer in respect of the selection process whereby Brookfield Europe LP were selected as the preferred bidder and explain why Brookfield Europe LP were so selected?

A. As outlined above, I was not closely involved in this issue, although I was a member of the Acute Services Strategy Board. I also attended the Performance Review Group Board Standing committees during my time as Chief Operating Officer. In November 2009, the PRG approved Brookfield as the preferred bidder. During these meetings, I had no involvement in the technical details associated with issues such as water and ventilation as I do not have the technical expertise to give an informed view on such matters. My involvement was more in relation to the redesign of services to allow a smooth transition to the new facilities.

a) Should the Chair assume from this paragraph of your statement that the removal of the maximum temperature variant in May/June 2009 was not discussed at the Acute Services Strategy Board or the Performance Review Group Standing committees?

A. I have no recollection of this issue being discussed at these Committees but it is difficult to recall the detail 16 years later.

b) Should the Chair assume from this paragraph of your statement that the use of Chilled Beams in the new hospital was not discussed at the Acute Services Strategy Board or the Performance Review Group Board Standing committees?

A. I have no recollection of this issue being discussed at these Committees but it is difficult to recall precisely after 16 years. In addition, any such discussion would have been led by the Project Director and his team as I do not have the necessary technical knowledge to provide an informed view on their use.

c) Please refer to **Bundle 34, Document 21 at Page 152.**

A. This document sets out the Terms of Reference and Membership of the New South Glasgow Hospitals and Laboratory Project Executive Board, of which you were a voting member, it sets out how the Executive Board "will be accountable for the planning and delivery of all procurement financial and technical measures required to deliver the identified investment and services that fall within the scope of the whole project. This will ensure there is appropriate progress on … "Technical Output Specs, Bid Evaluation Process [and] Test technical viability of solutions". Did this not make the Executive Board responsible for ensuring that the technical changes pre contract (including the removal of the Maximum Temperature Variant in June 2009 and the agreement of the Agreed Ventilation Derogation) were properly assessed on a technical basis?

The Terms of Reference outline a requirement for issues to be duly considered by the appropriate personnel. As outlined above, any such issues would require to be fully assessed by the Project team and their technical advisors, before coming to a multi-disciplinary Programme Board who would pay due attention to the technical recommendations about the suitability of any course of action.

18. When did you first become aware of the ZBP Ventilation Strategy Paper dated on or around 15 December 2009? **(**see **Bundle 16, Document 21, Page 1657).** What did you understand was the purpose and message of the paper? Were you aware that the authors of the paper appear to accept that it proposes a solution which has less air change rate than that set out in the STHM. What action, if any, did you take when you became aware of this document or the proposal contained within it and why? If you did not take any action, why not? What concerns you have on reading this document or learning of the proposal contained within it?

A. I had no awareness of the ZBP Ventilation strategy paper dated December 2009 until the production of the AECOM report in 2019 which described the overall position with regard to the ventilation systems. It would be unlikely that the Chief Executive would be involved in these issues as again a degree of technical expertise would be required. The Project team and its advisors would be the individuals who would take ownership and accountability for such issues. By the time I became aware of the document, significant work had already been undertaken in relation to the ventilation in the most essential areas, with the infection control team, estates and facilities staff and the local teams addressing any ongoing issues.

19. The Inquiry is aware of the agreed ventilation derogation recorded in the M&E Clarification Log. (see **Bundle 16, Document 23, at the foot of Page 1664).** What was your understanding and awareness, if any, the scope of this agreed ventilation derogation recorded in the M&E Clarification Log? When did you first become aware of it and how?

A. I was unaware and had no knowledge of the scope of this agreed ventilation derogation and did not have sight of the M&E Clarification log as that would be undertaken by others within the organisation, rather than at Chief Executive level. I only became aware of its existence more recently as part of the ongoing investigations.

a) The Inquiry Team understands that the M&E Clarification log formed part of the contract between Brookfield and NHS GGC. Given the responsibilities placed on the Chief Executive of the Board should the then Chief Executive have known of and understood the M&E Clarification log and its impact on the conformity of the planned ventilation system with SHTM 03-01?

A. **I**n an organisation of the size and complexity of NHSGGC, the Chief Executive requires to place substantial reliance on their team to deal with very many matters of significance. The Project Director and his team would routinely be those best placed to consider such issues. I would also not anticipate that a Chief Executive of such a large and complex organisation would have the requisite knowledge and expertise to have a full understanding of the detail and significance of the M&E clarification log but, again, would rely on the Project team and their technical advisors to action appropriately.

b) With reference to what the Inquiry has called the Agreed Ventilation Derogation recorded in the M&E Clarification Log and question 19 in your statement to the Inquiry of May 2025 you have not answered the question “When did you first become aware of it and how?”. When and how did you first become aware of the Agreed Ventilation Derogation?

A. I regret that I am unable to recall precisely when I first became aware of it.

20. How was this agreed ventilation derogation signed off by the Board? If the decision to agree this derogation was delegated to an individual, a group of staff or a committee of the board or its staff how was this delegation made and what report was made to the Board of agreement of this ventilation derogation? Why this derogation was accepted, and who advised acceptance? What role, if any, did BREEAM played in the acceptance of this derogation?
You should note:

- That in an email of 23 June 2016 (see **Bundle 12, Document 104, Page 813**) Alan Seabourne sets out he understood that the ventilation of rooms in the hospital was approved,
- That Currie and Brown assert in their response to PPP13 that the GGC Project Team had advised Helen Byrne of the Agreed Ventilation Derogation, alongside Alex McIntyre (Director of Facilities) and Peter Gallagher (Director of Finance), and
- That in evidence Professor Steele stated that he had been unable to find any documentation other than the M&E clarification log itself to explain why the NHS GGC agreed to the derogation. **(Transcript, Professor Steele, Page 36)**
- The Inquiry has seen the February 2010 paper Helen Byrne drafted alongside Alan Seabourne; Drafted Acute Services Review paper which stated the Acute Services Strategy Board will "*Approve change control in that any change which impacts upon the project must be authorised by this Board before it can be implemented".*

A. I am unaware of any process whereby such a derogation was signed off by the Board and I had no knowledge of the derogation agreement / signoff as, again, I assume that this would have been dealt with by the Project team as part of their overall delegated authority. I have no knowledge of the role of BREEAM in that decision. I have no recollection of these issues being discussed at the ASSB. It would be important to note that my main involvement and expertise would have been when service changes and the amalgamation of services were anticipated to ensure that the impact on operational service delivery was fully understood.

a) Once you became aware of what the Inquiry Team has called the "Agreed Ventilation Derogation", perhaps after Mr Powrie's email of 26 May 2016 (see **Bundle 20, Document 68, page 1495)**, what steps are you aware of that the Board took at any time before the appointment of Professor Steele as Director of Estates to understand why the "Agreed Ventilation Derogation" described in that email was agreed to and whether it was carried out under delegated authority or with the approval of the then Chief Executive or any sub group or subcommittee of the Board?

A. During my time as Chief Executive, efforts were made to establish how this decision was made through a review of the appropriate paperwork but NHSGGC had difficulty in clarifying precisely how and where that decision was made as it was not immediately evident from the papers that were reviewed.

b) With reference to your response to questions 20 and 33 in your statement to the Inquiry of May 2025 when you returned to NHSGGC as Chief Executive in April 2017:

(i) What were you told in 2017 about the state of the ventilation systems of the QEUH/RHC, the Agreed Ventilation Derogation, Mr. Seabourne's email of 23 June 2016 (see **Bundle 12, Document 104, Page 813**) or Dr. Inkster SBAR of June 2016 (see **Bundle 4, Document 11, Page 52**).

(ii) What steps did you take before the end of 2017 as Chief Executive and also as a former member of the NSGHLPEB to investigate why NHSGGC agreed to the Agreed Ventilation Derogation or why specialist ventilation systems had not been completed to standards that had been expected by clinicians?

A. I do not recall being told directly of these issues in 2017 and had not seen sight of the emails or SBAR you refer to until I became aware of the series of concerns that had been raised that resulted in the 27-point action plan and, thus, was then aware that work was underway to address a number of issues associated with the ventilation system.

My understanding following a conversation with the Project Director which would have been during 2017 following the production of the SBAR and the subsequent action plan, is that decisions relating to the ventilation system had taken place many years before. I also was subsequently informed that the technical experts for NHSGGC had advised NHSGGC on this issue. It proved extremely challenging to try and establish precisely when and who made that decision, even after 2017.

c) Mr. Loudon, the second Project Director of the new SGH project, retired in January 2018, what steps were taken before he retired to obtain his understanding of the Agreed Ventilation Derogation or why specialist ventilation systems had not been completed to standards that had been expected by clinicians.?

A. Mr. Loudon moved on to a new role in 2018 rather than retiring. Discussions were as outlined in question 14.

21. As far as you know which members of staff of NHS were aware of this agreed ventilation derogation at the time it was agreed or in the period between contract close and the end of the reviewable design period? What did they tell you about the reasons for the approval of this derogation?

A. I have no direct knowledge of which, if any, members of staff of NHSGGC were aware of this agreed ventilation derogation at any stage of the new build project. I would anticipate that members of the Project team would be best placed to respond to this question.

22. Was this agreed ventilation derogation restricted to general wards only?

A. I have no knowledge of this issue and would suggest that the Project Director and his team with the required technical expertise would be best placed to respond to this question.

a) What steps did you take after you became Chief Executive to discover why and under what authority the "Agreed Ventilation Derogation" was agreed to and whether it was restricted to general wards only?

A. As outlined above in relation to Q20.

23. Was the design and/or specification of the ventilation system as recorded in the Building Contract, in particular in the M&E Clarification Log in accordance with NHS Guidance including STHM 03-01 (2009) Draft (see **Bundle, 16 Document 5, Page 342**)? Explain your reasons?

A. I have no knowledge of this issue, nor do I have the technical expertise to provide an informed view. I would rely on the Project team, its Advisors and our local Estates and Facilities team to provide information on such issues.

24. What risk assessments, if any, whether in compliance with the standards in HAI Scribe or otherwise, did NHS GGC carry out or have carried out in respect of the change in the ventilation strategy that appears to follow the ZBP Ventilation Strategy Paper dated 15 December 2009? (see **Bundle 16, Document 21, Page 1657)**?

A. Again, I do not have any knowledge of this issue, nor do I have the technical expertise to provide an informed view.

25. Was the agreed ventilation derogation recorded in the Full Business Case? Who was responsible for doing this? If not, why not? If you were aware that it had not been recorded in the Full Business Case please explain what action, if any, you took?

A. I do not have any knowledge of this issue.

Whistleblowing Process

26. What is your understanding of the whistleblowing process within NHS GGC in 2017 and the extent to which it was designed and operated to ensure that disclosure by staff of evidence of wrongdoing, failures in performance or inadequacies of systems was encouraged and reacted to by the Board to ensure that the safety of patients and the best value use of public funds were protected?

A. The Whistleblowing Policy in 2017 was included within the Code of Conduct and had been updated from the initial document in 2013. The Whistleblowing policy was overseen with regular reporting and reviews by the Audit and Risk Committee and the Staff Governance Committee which are Standing committees of the NHS Board. I have outlined the various routes to promote the whistleblowing process within Q35.

27. The Inquiry understands that in April 2017 you were contacted by Dr Redding about concerns she had about the hospital environment and patient safety (see **Dr Redding's Statement, paras 95 to 102, 110, Witness Bundle, Week Commencing 2 September 2024, Document 2 at Pages 93-95 & 97)**. What do you recall about these messages? What action, if any, did you take in response?

A. Towards the end of April 2017, shortly after I had taken up post as the Chief Executive, Dr Redding called me one evening. She stated that she wished to have an off the record conversation about a range of issues. I recall that she indicated that at the Easter weekend there had been a lot of work for the ICD and she had gone into the hospital to assist. She also stated that the relationships within the infection control team were not optimal. She stated that there had been a number of issues, including estates and facilities, associated with the new hospital. Due to the passage of time, I do not have a full recollection of the conversation.

I then spoke to the Medical Director as the executive lead for IPC who indicated that she was aware of a number of the issues although there were differing views within the teams at the QEUH / RHC on a number of them. She indicated that

the IPC team was working with the infection control doctors and nurses, and local clinical teams to address the concerns. I also spoke to the Director of Estates and Facilities and the Chief Operating Officer to ensure they were aware of the issues and taking any required actions.

a) With reference to Dr. Redding's call to you in April 2017 (see question and answer 27 in your statement to the Inquiry of May 2025):

(i) You have explained that following that call you spoke to Dr. Armstrong and she informed you that she was aware of a number of the issues Dr. Redding had mentioned. What was the nature of the issues she was aware of and to what extent did those issues include concerns regarding the specialist ventilated areas within QEUH and RHC and the impact on patient safety by ICDs in July 2015?

(ii) You say you then spoke to the Director of Estates and Facilities and the Chief Operating Officer to ensure they were aware of the issues and taking any required actions. To what extent did those "required actions" relate to ventilation in the specialised ventilated areas such as Ward 2A and isolation rooms?

(iii) Do you accept that there were problems with the existing governance and reporting structures, given that consultants such as the whistleblowers, had to bypass them?

(iv) When did the NHSGGC Board first officially become aware of the concerns being raised by the whistleblowers?

(v) Do you now accept that the NHSGGC Board should have been made aware of these concerns (which have been shown to be justified and related to patient safety) much earlier?

A. My recollection is that Dr. Armstrong indicated that there had been some challenges between different colleagues who had differing views of how issues should be addressed including the issues that had occurred during the Easter weekend. My recollection is that Dr. Redding indicated that she had a number of concerns about the new hospital and the input from infection control colleagues and my recollection is that Dr. Armstrong and I discussed the overall input from infection control rather than specific detailed issues.

Again, my recollection is that the conversation with the Chief Operating Officer related to the interface between infection control colleagues and the microbiologists who were managed within the Diagnostics Directorate in order to ensure he was fully sighted on the fact that there were different views on how the system should operate. With regard to the Director of Estates and Facilities, my recollection is that he was aware of a number of issues concerning the QEUH / RHC but I do not recall specific discussion on the specialised ventilation areas.

In relation to the conversation with Dr. Redding, she stated that she wished to have an “off the record” conversation as I had recently returned to NHSGGC. I had known Dr. Redding from my previous role as Chief Operating Officer and, thus, I did not regard the conversation as “bypassing” the existing governance structures. On the wider issues, it was a complex situation as there were a number of different departments involved in these issues and, thus, there was a need to ensure they were all addressed and co-ordinated and that was undertaken later in 2017 through Dr. Armstrong.

The concerns of the NHSGGC whistleblowers were highlighted to the Clinical and Care Governance committee of the NHS Board in December 2017 when a detailed paper was provided to the committee. Further communication was provided to the NHS Board meeting in December 2017 so they were aware of the concerns at that time. I regularly briefed the NHS Board Chair on the position so he was aware of the issues soon after they occurred.

It is normal practice for the detailed scrutiny and discussion to take place at the NHS Board subcommittees to ensure a full examination of the issues. Significant efforts were being made to ensure that all these issues were addressed and the minute of the Clinical and Care Governance committee in December 2017 clearly outlines the position from a non-executive perspective.

28. Dr Redding and others then made a stage 1 whistleblow to Dr Armstrong for which they produced an SBAR (see **Bundle 14, Volume 1, Page 732)** and a meeting on 4 October 2017 (see minute at **Bundle 14, Volume 1, Page 753)**. As Chief Executive what steps did you take to keep yourself informed of the progress of this whistleblow and the concerns raised?

A. Initially, NHSGGC were not aware that Dr Redding regarded her concerns as a "whistleblow" and they were, therefore, dealt with through ongoing dialogue and then through the production of an SBAR requested by the Medical Director to ensure all issues were recorded in one document.

I was updated on progress by the Medical Director, Director of Estates and Facilities and the Chief Operating Officer. In addition, the issues were reported to the Clinical and Care Governance committee (CCGC) by the Medical Director and, on occasions, members of the IPCT.

29. Was this Stage 1 whistleblow discussed and reported on at Board meetings? What actions were taken in respect of the concerns raised in the whistleblow? How did the 27-point action plan (see **Bundle 20, Document 48, Page 792**) come about?

A. I do not recall the SBAR being discussed at the NHS Board but, as in Q28, it was discussed at the CCGC. The Medical Director ensured that an action plan was drafted and it was monitored regularly by her and the local teams. Its progress was also reported to the Board subcommittee as outlined above.

a) With reference to your response to question 29 in your statement to the Inquiry of May 2025 you appear to accept that the 3 October 2017 SBAR and the 27 point Action Plan were not discussed at the Board meetings but were reported to the Clinical and Care Governance committee. Would you accept that this prevented the whole Board from understanding that there were issue with the new QEUH building that remained unresolved more than two years after the hospital opened?

A. The NHS Board has to deal with a wide range of complex and challenging issues. It would be normal process for issues such as the SBAR and the Action Plan to be considered by the appropriate subcommittee. This would ensure more detailed analysis and scrutiny could take place and would ensure that the executives were held to account by the non-executive Board members in a more detailed manner than could be undertaken at the full NHS Board meeting. In addition, those non-executive Board members who had a clinical background were members of the Clinical and Care subcommittee and were thus best placed to ensure that all the patient safety issues were being fully considered. Following discussion at the subcommittee, updates were provided to the NHS Board, both at the public NHS Board meetings and in seminar format.

This format is followed in all areas of the NHS Board's business to ensure a full examination of the issues that require more detailed discussion.

30. To what extent is it fair to say that the 27 point action plan come about as a direct consequence of the Stage 1 whistleblow raised by Dr Redding and others?

A. The action plan was drafted following these discussions as, although a number of issues had been previously highlighted and various actions in respect of those issues were already underway, this process brought increased focus to the issues, with clarity of timescales for action. It also ensured greater clarity on the progress that had been made in a number of areas.

31. What steps did you take to satisfy yourself that the issues raised personally with you by Dr Redding and in the Stage 1 whistleblow were addressed by NHS GGC?

A. I spoke regularly to the Medical Director on the issues raised and with the Director of Estates and Facilities in relation to estates and cleaning issues. I also spoke with the Chief Operating Officer, as well as the Medical Director in relation to the working relationships between the infection control team and colleagues within the Diagnostics Directorate.

a) With reference to your response to question 31 your statement to the Inquiry of May 2025 in which you describe speaking regularly to colleagues about "estates and cleaning issues" and "working relationships between the infection control team and colleagues within the Diagnostics Directorate", what assurances (if any) did you receive in 2017 and the first half of 2018 about:

(i) The safe operation of the water system of the QEUH

(ii) Whether the isolation rooms in the QEUH were appropriately specified for the patients to be treated within them?

(iii) Whether there had been infections that had the potential to be connected to the water or ventilation systems of the hospital

(iv) An HPS review of the NHSGGC system for surveillance and reporting of infections.

Concerns about the water system only emerged in 2018 and thus I do not recall there being discussion on this subject in 2017. However, once the issues began to emerge in 2018, and the IMT process was instigated, there was ongoing dialogue with regard to these issues. The situation initially was very unclear in relation to the potential for issues to be related to the water system so any emerging issues / actions from the IMT were discussed and actioned and my conversation with colleagues related to ensuring that progress was being made on issues raised by the IMT.

I do not recall directly discussing issues such as the specification of the isolation rooms for appropriate patients at that time although I appreciate they were raised through the SBAR process in late 2017 and the action plan was agreed through that process.

As outlined above, there were a number of ongoing issues but I do not recall any specific significant issues being raised with me in relation to these areas until after the IMT process in Spring 2018.

I have no recollection of discussion with me of an HPS review as outlined at that time.

32. When did you first become aware of the Stage 2 Whistleblow by Dr Redding about which Dr de Caestecker prepared a report (see **Bundle 27, Volume 4, Document 6, Page 81**). When did you see that report?

A. In February 2018, I was made aware that Dr Redding had indicated that she intended to move to Stage 2 of the whistleblowing process. It would not be routine practice for the Chief Executive to see whistleblowing reports. I was kept abreast of the issues by the Medical Director and the Chief Operating Officer and was aware of the issues involved. I cannot recall precisely when I saw the report.

33. Specifically what steps did you take (or had taken by the end of 2017) to find out why 6 ACH was not achieved across the hospital in compliance with SHTM 03-01? If you did investigate, what did you find out. If you did not, why not?

A. Dr Redding and her colleagues had raised a number of issues relating to ventilation during the period leading up to the production of the SBAR. At that time, I spoke to the Director of Estates and Facilities to seek a view on the situation. It was not easy to establish the reason for the ventilation position due to the lack of appropriate documentation from the contractor and also due to the fact that many colleagues were no longer in post. The issues raised, however, were systematically considered as part of the SBAR process and high priority areas were addressed following advice from infection control and estates and facilities colleagues.

34. Specifically, as Chief Executive what steps did you take to keep yourself informed of all future whistleblows and the concerns these raised?

A. It is not normal process for a Chief Executive to have sight of the details within whistleblowing reports due to the need for confidentiality for those involved. I would get a monthly summary of ongoing items and any summary recommendations but would not generally see the reports in full to ensure that the confidentiality of the process is retained.

a) Why is it "not normal process for a Chief Executive to have sight of the details within whistleblowing reports" when the overt purpose of making a protected disclosure would appear to be to bring issues relating to patient safety to the attention of the organisation?

A. In an organisation of the size and scale of NHSGGC, it is important that the delegated structures are utilised to ensure the local senior teams are aware of, and addressing, the issues. As Chief Executive, matters of significant importance were brought to my attention, although the need for confidentiality of the process remains of considerable importance to those involved.

NHSGGC follows the National Whistleblowing Standards which are clear on the approach to confidentiality. They state that organisations should "recognise and respect that everyone involved has the right to confidentiality" and continue "as far as the law allows, respect the confidentiality of any person who raises a concern, unless they agree that you do not have to". The Standards also state "confidentiality must be maintained as far as possible in all aspects of the procedure for raising concerns". Finally, the Standards also indicate "it is important that all of the issues raised in the investigation are treated confidentially unless there is a lawful basis or requirement for sharing information with others". Thus, confidentiality is a key requirement and focus throughout all whistleblowing investigations.

The summary documents contained a high level overview of the recommendations in order that the Chief Executive, the CMT and the appropriate Board committees can ensure they are being addressed fully.

35. Whilst you were in post what steps did the Board of NHSGGC take to encourage staff to raise concerns and highlight issues, including by whistleblowing policies and processes. If it were suggested that raising concerns and highlighting issues, including by whistleblowing policies and procedures, was not encouraged between 2017 and 2019, what would your response be? What evidence can you point to which supports your position?

A. Significant efforts were made to promote whistleblowing within NHSGGC, including throughout the period when I was Chief Executive. In 2014, NHSGGC launched a new Code of Conduct including whistleblowing through the use of the Core Brief and the Area Partnership Forum, supported by the Chair and Employee Director and this Code of Conduct was updated annually.

In October 2015, a non executive whistleblowing champion was appointed who ensured that appropriate action was taken in relation to this area. This role was to act at a strategic level to assure the NHS Board that appropriate actions and training were in place to promote whistleblowing, monitor performance against timescales and identify any emerging trends. Reports were also given to the CMT and to Board committees. This role added a non executive perspective to the issue at a strategic level and the initial whistleblowing champion sought information on the current position and worked with the executive lead to embed the process.

Since 2015/16, information for staff has been available on HR Connect which is available 24/7 and is used by staff to gain information on all types of HR issues. Action plans have been produced since that time and include issues such as publishing local and national whistleblowing routes and regular communication through Staff Net, and the Core Brief. Work was also undertaken to support the

Champion Assurance role, including supporting the Whistleblowing Champion in preparing an Assurance Overview Report on the previous year's cases for the appropriate governance committees and in developing action plans to ensure the Champion's role was best placed to adopt the assurance role. Training was also provided to support Level 2 and 3 cases, along with training for the Corporate Directors to ensure an overall awareness. There were, therefore, a significant number of actions undertaken to promote and support the whistleblowing process and, thus I believe that it would be incorrect to suggest that it was not encouraged between 2017 and 2019.

In 2019, the culture framework was also launched in NHSGGC and in 2020 I established the Gold Command group within the South sector. One of its objectives was to ensure that the QEUH and its associated hospitals within the sector were addressing all staff governance issues in a robust and appropriate manner and that group met on a regular basis for some time. In 2020, the post of Head of Staff Experience was created and a review of whistleblowing was undertaken by the then whistleblowing champion, with external support from an HR professional. In 2021, following the publication of the whistleblowing national standards, NHSGGC developed an action plan to create confidential contacts and to further improve a range of issues, including additional training.

Routine communication in relation to all these issues takes place at local Partnership forums, the Area Partnership forum, the CMT and Staff Governance committee.

During this period, NHSGGC also worked over a number of years towards the achievement of the Investors in People award and were successful in achieving this award in 2024, following a lengthy period of work across NHSGGC, including all the acute hospitals within NHSGGC.

a) In light of the recent publication by HIS of their report into the A&E Department at the QEUH (**Bundle 51, Volume 1, Document 7, Page 904**) and its conclusions that there was, “a lack of compassionate, respectful and positive leadership at all levels of the organization, especially in responding to concerns raised by staff”, is there anything you would like to add to Paragraph 35 above?

A. It is clearly of concern when issues such as those within the HIS report are raised. Considerable efforts were made to ensure staff felt supported but further work will require to be undertaken to address the concerns raised. Particular pressures exist in relation to Emergency departments across NHS Scotland and these pressures may need to be considered in a different manner to those elsewhere in the hospitals to ensure due attention is paid to the particular complexities of that area.

b) With reference to response to question 35 in your statement to the Inquiry of May 2025 Dr. Redding has given evidence (see paragraph 112 of her statement, **Witness Bundle – Week Commencing 2 September 2024, Volume 3, Document 2 at Page 98**) that: “Staff were not encouraged to use the Whistleblowing procedure. Prior to either the Stage 1 or the subsequent Stage 2 whistleblow (I cannot now recall which), I was urged not to Whistleblow by Jane Grant. I recall her specifically saying to me that she “urged” me not to do it”. Do you accept Dr. Redding’s position that you urged her not to whistleblow?

A. I received a several emails from Dr. Redding between November 2017 and January 2018 raising a number of issues, principally relating to the infection control structure and the role of ICNs. In the initial email of 24 November 2017, Dr. Redding indicated that she “may have to go to Stage 2 of the whistleblowing process”. I responded to Dr. Redding on 29 November indicating that I considered it essential that all infection control colleagues, both nursing and medical staff, work as a team to ensure there is coherence across the service and that everyone recognises the essential nature of that supportive team

working environment. My response goes on to stress the importance of everyone working together to seek realistic solutions and address any communication issues. I also outlined that where there is a difference of opinion between colleagues a professional discussion needs to take place to ensure all voices are heard and considered.

My email then suggests that the most appropriate way forward would seem to be through a meeting to be chaired by Dr. Green (the Chief of Medicine for Diagnostics) at the beginning of December. My email then states, “I would urge you to continue to work with Dr. Green, Professor Jones as the NHS Board’s interim lead ICD and your colleagues to seek an appropriate solution to these issues.”

Dr. Redding responded on 30 November stating “I agree with what you are saying and am happy to follow your advice”. Her email also states, “I am happy to comply with your request to wait”.

I, therefore, was seeking to ensure that colleagues continued to work in a collaborative manner to address ongoing concerns, I was not seeking to influence Dr. Redding in relation to whistleblowing but rather to seek a resolution to the issues raised.

I would also confirm that, other than the phone call in April 2017, I do not recall speaking in person to Dr. Redding rather the dialogue was through email.

Duty of Candour Policy

36. In his evidence Professor White explained (**see Professor White, Transcript, pages 75 to 79**) that, in discussion with the Board, in his capacity as the appointed Oversight Board lead on communications, he had discovered that the NHS GGC policy on statutory duty of candour had been written to impose a number of hurdles as a requisite of its operation above and beyond what was required by the statutory provisions (including a requirement of causation). He described this, somewhat kindly, as the policy not 'fully reflecting' the statutory requirements. How did the policy he was criticising come to be written and approved by the Board? Do you accept that his criticism is fair? Has the policy now been changed?

A. NHSGGC has fully engaged with the Scottish Government and other Health Boards in the development of the Duty of Candour Policy. In April 2018, the NHS Board approved the Duty of Candour Policy (2018-2021). In December 2018, an update was provided to the CCGC who noted "In summary, the committee was content to note the report and update on the implementation of the Duty of Candour Policy. The Committee noted that the policy had been implemented and were satisfied that this was being managed in line with policy requirements."

In 2020/21, NHSGGC also asked its internal auditors to undertake a review of the Duty of Candour policy in order to assess compliance with the Duty of Candour legislation, including training and guidance provided to staff. The audit was generally positive with only minor improvement required. It stated that policies and procedures had been developed and implemented to fulfil the Board's obligations under the applicable legislation and regulations. It also outlined that relevant staff had received adequate training and that all incidents giving rise to obligations under Duty of Candour were identified and recorded with actions taken in line with the regulations. It also stated that a formal review of the circumstances of incidents was undertaken, including a written report. This report was presented to the NHS Board's Audit and Risk committee who were assured of the position.

Given the challenging nature of the situation with regard to Ward 6A, Prof White attended 3 meetings of the IMT in October and November 2019. Duty of Candour was discussed at each of the meetings. I understand that Prof. White did not raise his concerns at those meetings". In addition, I do not recall Prof. White raising any issues relating to the Duty of Candour with me at that time.

In addition, NHSGGC's policy was commended by other NHS Boards and was used as a template for other Health Boards. Given that Duty of Candour legislation was reasonably new, further consideration and refinement may reasonably be required. In late 2020 the Scottish Government held two workshops, chaired by Prof. White. I understand that NHS Boards identified that there was inconsistent practice across Boards in relation to Duty of Candour and two main points were raised) i) the guidance was not clear enough; and ii) there was little understanding / lack of clarity around definitions (e.g. meaning of unintended and unexpected) with NHS Boards interpreting issues differently leading to inconsistent application as well as reporting. Thus, at that time, there was a need for further clarity on a national basis.

One of the key issues relates to the interpretation of the legislation when assessing whether organisational Duty of Candour is engaged, as the legislation does not set out a clear definition of an "incident". NHSGGC has interpreted this as a situation where something has gone wrong due to an act or omission for which NHSGGC is responsible. The interpretation in the Final Report of the Oversight Board is a wide interpretation of when Duty of Candour may commence. In summary, it is acknowledged that further national work should be undertaken to be more precise with regard to the triggers for organisational Duty of Candour, particularly where causality is not easily indicated, so that this may be more easily interpreted and implemented more uniformly by Health Boards in Scotland.

Within the Fraser / Montgomery review, it also sets out that the NHSGGC policy on Duty of Candour is adequate but also notes that the Scottish Government requires to undertake some further work as the legislation is not really intended for these types of outbreaks and that more work is needed nationally.

NHSGGC has always taken Duty of Candour seriously and, in light of the issues outlined above, as well as the external view sought, I would contend that NHSGGC had adequately adopted the legislative requirements into its local policy. It is incumbent on all parties to keep these issues under review and to recognise that there will, in all systems, require to be refinements and learning as new legislation is implemented. NHSGGC has sought to ensure that occurs at every stage.

In line with the scheduled review cycle and the recommendations in the Oversight Board report, the NHSGGC policy was reviewed and updated in 2021.

a) Do you accept that Professor White's criticism of the NHS GGC Duty of Candour policy as it stood in 2019 was fair?

A. I believe that Professor White's comments need to be considered in the overall context of the situation. NHSGGC had sought external validation of its policy to ensure it was fully addressing the legislation and understood that to be the case. In addition, as previously stated, there was some national clarity required to ensure consistency and NHSGGC welcomed that clarity.

The 'Water Incident' and Events in 2018

37. When did you first become aware that there were concerns in the QEUH/RHC that there was a potential link between the water system of the QEUH/RHC and a number of infections in patients the Schiehallion Unit? How were you briefed and what were you told?

A. I first became aware of the potential link between the water systems and a number of infections in Wards 2A/B in March 2018, although at that time, it was one of a number of hypotheses. I was briefed by the Medical Director on the situation and there was ongoing dialogue with an extensive action plan being developed. On 15 March 2018, the interim Director of Estates and Facilities forwarded an urgent briefing note to the Medical Director and me. It outlined the current position and a significant number of actions that had been taken to address the situation. I understand that this note has already been made to the SHI team (see **Bundle 27, Volume 8, Document 12, Page 68 and Bundle 27, Volume 8, Document 13, Page 69**).

38. What were you told about the Water Incident Debrief meeting of 15 May 2018 (see **Bundle 14, Volume 2, Document 95.1, Page 211**) and/or the Full Incident Management Team Report covering the IMTs from 2 March 2018 to 13 April 2018 dated 5 June 2018 (see **3 Bundle 27, Volume 5, Document 19, Page 46 and Bundle 8, Document 6, Page 53**)? To what extend did you in May/June 2018 understand that the source of exposure of infection risk to immunocompromised patients in the RHC was considered to be the water supply?

A. I was briefed by the Medical Director on the issues being considered. I recall being told that there was learning identified over a range of issues and that colleagues were committed to ensuring that any learning was addressed.

During May / June 2018, HPS were working with NHSGGC and there had been no new cases since April. As the Framework had been invoked, NHSGGC no longer had the lead role and were working closely with colleagues in HPS and

the Policy Unit of the Scottish Government. A report was produced by HPS during this time with a number of recommendations associated with the water and NHSGGC was working collaboratively with them to ensure that all recommendations were enacted. At that point, the hypothesis was that the infections were associated with the water.

39. To what extent was the 'Water Incident', the work of the IMT and the Water Technical Group reports to the NHS GGC Board? What actions were taken by you and/or the Board to address these concerns? How were the Board kept up to date as this incident progressed?

A. Regular updates were given to the appropriate sub committees of the NHS Board and to the Board itself. The issues were reported to the CCGC in December 2017, March 2019 and June 2021.

40. How and when did you first find out the terms of the 2015 and 2017 DMA Canyon L8 Risk Assessment Reports in 2018? What role did Professor Steele play in that discovery?

A. At the end of June 2018, I was made aware of the existence of 2 reports by DMA Canyon from 2015 and 2017. Prof Steele came to meet me in his role in HFS and provided me with a copy of the reports which I had not seen before. I was unaware of their existence until Prof Steele provided me with copies of the reports.

41. What steps did you take upon discovering these reports? Did you inquire as to how the Estates department appeared not to have brought the report to the attention of the Board or the IPC Team? Did you inquire of the Co-Chairs of the Board Water Safety Group why it had not notice that L8 Risk Assessments for the QEUH/RHC had not been reported to it in the three years following handover? What were the results of any investigations you did carry out?

A. I sought advice and support from Jim Leiper, an experienced senior technical estates leader on the content, the implications and asked him to review the reports, the NHSGGC systems of operation and provide an action plan for implementation of the recommendations. I asked Mr. Leiper to also assess why these reports had not been made available at a higher level within NHSGGC.

The investigations indicated that there had been a very large number of issues for the estates team to deal with following handover and that, due to pressures of the overall work, the reports had not been fully actioned.

a) Did you raise the terms of the 2 DMA Canyon Reports with the then Co-Chairs of the Water Safety Systems Group Ms Kane (see **Bundle 20, Document 95 and Page 196**) and if so when did you do that and what was their response?

A. Following receipt of the reports from Prof Steele in 2018, I did raise the contents of the DMA Canyon reports with Ms Kane who was unaware of their existence. We discussed the steps that needed to be taken as a matter of urgency and she put in place immediate actions with her team to address them, including the appointment of additional external expertise.

42. How were the Board kept informed of the developments in respect of these DMA Canyon L8 Risk Assessment Reports and what mechanisms, if any were in place to update the Board in respect of the progress being made addressing the recommendations of the report and of the Authorising Engineer (Water)?

A. Following receipt of the reports, I spoke to the Medical Director and made her aware of their existence. She, in turn, ensured that they were brought to the

attention of the infection control team, including the ICD. On 3 July 2018, the NHS Board was updated at a Board seminar on the position regarding these reports. An action plan was drafted and colleagues within Estates and Facilities addressed the outstanding issues as a matter of urgency.

a) It has been suggested that the Board Infection Control Committee did not take sufficient control of the Water incident in 2018 and subsequent concerns about potentially environmentally related infections in 2018 and 2019. With reference to the BICC Minutes available to the Inquiry in Bundles 13 and 35 can you assist the Inquiry in understanding what committees or groups of NHSGGC or within NHSGGC took control of the Board's response to concerns about potentially environmentally related infections in 2018 and 2019?

A. The main issues associated with the water incident were addressed through the established IMT processes rather than the Board Infection Control Committee, which is essential to ensure that the issues are addressed in a systematic manner with the correct professional and operational input. Regular discussion and action was required and the IMT had the ability to adapt to emerging issues in a prompt manner. Issues were considered by the CMT and by the Clinical and Care Governance committees as well as the Acute Services committee and the Finance, Planning and Performance committee.

b) Dr Inkster has given evidence that as Lead ICD and Chair of the Water Incident IMT that in May 2018 she proposed the establishment of an "Executive Control Group" to provide director-level oversight of the incident. (3 Dr. Inkster, Transcript, Day 1, Page 173-176). Dr. Armstrong has been asked about this (Transcript, Dr. Armstrong Cols 101 to 103). Do you have any recollection of discussion of such an "Executive Control Group" in 2018 and to what extent was the "Water Review group" discussed in your answer to question 43 in your statement to the Inquiry of May 2025 a response to a similar concern or to meet a similar need?

A. I do not have a clear recollection of the discussion relating to this issue. However, my understanding is that a Water Review Group was established to ensure that all aspects of the issues that had been raised were being addressed. This group was chaired by the Chief Operating Officer and met during 2018 to ensure actions were being progressed.

c) To whom or to what committee did the “Water Review group” report?

A. My recollection is that the “Water Review Group” operated as a short life working group to ensure progress was being made on key issues. I do not recall whether there was a formal reporting mechanism although progress was discussed with key Directors and myself.

43. The Inquiry has the minutes of a Tuesday 18 September 2018 meeting of something called the Water Review Meeting that appears to have made the decision to decant the patients from Ward 2A (see **Bundle 19, Document 35, Page 614**). What was the Water Review Meeting? What was its membership and when did it meet?

A. The Water Review group met during 2018 to ensure there was high level oversight of the overall actions required. I was not a member of this group, although attended one meeting. Its members included the Chief Operating Officer, the interim Director of Estates and Facilities, the Infection Control Manager and Jim Leiper, with other attendees on occasion.

I was not directly involved in these meetings and do not recall details of when it met.

a) With reference to your answer to Question 43 in your statement to the Inquiry of May 20125, what person, committee or group made the September 2018 decision to decant the patients from Ward 2A RHC to another area in the hospital? (See **Bundle 19, Document 35, Page 614 and Bundle 1, Document 40, Page 175 at 177**)?

A. In relation to my response to question 44, I have indicated that the IMT discussion recommended a decant of Ward 2A. As outlined, the Director and members of the management team of the Women and Children's Directorate were involved in the discussions as were members of the Acute Division management team. My recollection is that further discussion took place with Corporate Directors, including the Chief Executive, Medical and Nurse Directors and the Chief Operating Officer as well as the local team and the decant solution was agreed.

44. The Inquiry has an SBAR that we understand was used to brief the Chair of NHS GGC, Mr Brown, on or about 13 November 2018 (see **Bundle 4, Document 32, Page 133**). Why was it necessary to decant the Ward 2A/2B of the RHC to Ward 4B/6A of the QEUH in September 2018 and what role did concerns that the domestic water system posed a risk to the safety of patients play in that decision?

A. The water IMT was reconvened in early September 2018 as 3 further patients had been identified and there were concerns that the domestic water supply may be contributing to that position.

At the IMT meeting on 13 September 2018, the IMT indicated that they recommended a decant of Ward 2A. There appeared to have been lengthy discussion at that meeting about the risk involved but there was a clear view that the issue could not be addressed while the ward remained occupied. The corporate team took advice from the IMT and the local operational teams and agreed to the decant solution in order to ensure that all possible actions that could be undertaken were fulfilled at the earliest possible opportunity.

Ward 6A and Events in 2019

45. What involvement did you have on or about 18 January 2019 in the decision to decant Ward 6A to the CDU? What was your understanding as to why a decant was necessary?

A. I was informed that mould had been located in a number of the shower rooms in Ward 6A and that remedial work would require to be undertaken to address the issue. I sought further clarity on the matter as I was concerned that patients and families would be subject to an additional move which would cause them further concerns and I wanted to be entirely clear as to why it was necessary. I also wanted to ensure that the location that patients were going to be decanted to was fit for purpose for these patients. Following a further discussion with colleagues, including members of the IMT, where they provided me with the necessary information, I believe that the final decision relating to the decant of Ward 6A was undertaken by the IMT with input from the Corporate Directors and local management team.

46. The Inquiry understands that following concerns regarding the safety of the environment, ward 6A was closed to new admissions at the start of August 2019. Patients were diverted to other centres, including Aberdeen and Edinburgh (see **Witness statement of James Redfern, para. 118.**). Some were sent further afield (**see Witness statement of Dr Jairam Sastry, para. 127**). The Minutes of the IMT of 1 August 2019 (see **Bundle 1, Document 75 at page 336**) imply that a decision was previously to close Ward 6A to new admissions and patients requiring higher risk chemotherapy. What knowledge did you have of that decision at the time. Why was it made and who approved it?

A. I was informed that concerns relating to Ward 6A had been raised through the IMT process and by clinical colleagues. Clinical decisions relating to the individual patients were taken by the local clinical teams based on their knowledge of the patients and I had no involvement in that process, although further details are provided below in relation to the overall position.

a) What knowledge did you have of the decision to close Ward 6A to new admissions at the start of August 2019 at the time?

A. I was informed of the recommendation to close Ward 6A following advice from the IMT and clinical colleagues.

47. The Inquiry understands that at an IMT meeting on 8 August 2019 there was a discussion of a potential further decant of patients from Ward 6A and that whilst the IMT might make a recommendation the "final decision will be endorsed by the Chief Executive" **(**see **Bundle 1, Document 76 at page 340)**. To what extent would be correct to say that a decision to decant patients from one ward to another would not be made by the IMT, but either by you as Chief Executive or a group of senior managers and executive Board members?

A. Decisions relating to decanting of wards require to be considered by a number of stakeholders, depending on the circumstances. When an IMT makes a recommendation to decant patients, it is normal practice that the rationale for such a move would require to be discussed with the senior site team, the Corporate Directors and the Chief Executive to ensure a full understanding of the circumstances. However, when an IMT makes a recommendation of this nature, significant efforts are made to ensure it is enacted.

However, in order to undertake a decant an assessment of the risks, potential options and overall implications for the whole QEUH site would need to be clearly understood. Where wards require to be decanted, other services will also be impacted and those considerations also need to reviewed. These actions are complex and require input from a range of staff, including the local clinical and managerial teams, as well as infection control and estates and facilities colleagues. The process is, therefore, a multidisciplinary decision with oversight by the Corporate Directors and the Chief Executive.

In this instance, the potential closure of Ward 6A had an impact outwith the QEUH / RHC as some patients would require to be treated elsewhere, and, therefore, the overall implications were significant .The executive team and myself, therefore, required to consider the issues in order that we could fully understand the implications and risks that would require to be addressed to ensure all aspects of patient safety were considered, including the potential impact on other centres.

a) To what extent would be it be correct to say that a decision to decant patients from one ward to another would not be made by the IMT, but either by you as Chief Executive or a group of senior managers and executive Board members?

A. The process would involve input from a range of colleagues as outlined in my previous responses.

b) With reference to your answer to Questions 43, 45, 46 and 47 in your statement to the Inquiry of May 2025 which person, committee or group in NHSGGC in 2018 and 2019 had the authority to order the decanting of a whole ward to another ward, arrange to address the consequential movements from that ward, spending money on such a move and issue the necessary public and internal communications?

A. Decisions such as the decanting issue would normally be taken by the local team with input from the relevant professional colleagues including infection control and estates colleagues. Ward decants take place for a number of reasons throughout the year and within the Acute Division such decisions would be taken by the relevant Sector Director with input from the Acute Management team, including the Chief Operating Officer, Acute Medical Director and the Acute Nurse Director. In this case, the issues were discussed with members of the CMT due to the complexity of the situation. The process is, therefore, a multidisciplinary action with oversight by relevant professional colleagues.

c) With reference to your answer to Question 47 in your statement to the Inquiry of May 2025 what person, committee or group made the decision in September 2018 to close Ward 6A to new admissions and at the start of August 2019?

A. The position is similar to that outlined above with IMT advice being followed and a multidisciplinary discussions taking place to ensure all aspects considered.

48. When did you first become aware that Dr Armstrong might have concerns about how the Gram Negative IMT was being run and that a decision was made on 20 August 2019 to replace Dr Inkster as Chair of that IMT? What reasons were given for those decisions and by whom?

A. In mid-August 2019, I was informed by the Medical Director that several colleagues had raised concerns with her about whether the IMT, which had been ongoing for some time, was functioning in an optimal manner. She informed me that limited progress was being made and that she had been told by senior colleagues that some behaviours within the meeting on 13 August 2019 had been reported as being inappropriate. Her major concern was patient safety and to ensure that the IMT was functioning appropriately, due to the severity of the situation and the need to ensure the IMT was fully focused on the delivery of appropriate solutions to this complex issue.

The Medical Director informed me that she was going to have a meeting to review the operation of the IMT and that it may be necessary to alter the way in which it was operating to ensure appropriate progress and that all possible hypotheses were being considered. We also discussed the need for a range of views to be heard in a respectful manner, as the issues were proving to be very complex and our major concern related to how we minimised the risk for patients and their families. The over-riding principle was to ensure that all parties used their knowledge and expertise to drive an optimal solution rather than the meetings becoming dysfunctional as had been reported.

a) Do you recollect whether there was any discussion about whether the views of Professor Gibson and the clinical team in Ward 6A should be sought about these issues around the operation of the IMT that was dealing with an incident in Ward 6A?

A. My understanding is that the discussion focused on how to ensure optimal progress was being made on the issues associated with the IMT. I do not know if there was any discussion about the views of the clinical team being sought. However, it would be important to note that there were serious concerns raised and it was incumbent on senior colleagues to ensure that they were addressed as a matter of urgency due to the patient safety issues involved, which is why urgent action was taken.

b) With reference to your answer to Question 48 at the point before Dr. Inkster was removed as Chair of the IMT, who was giving you advice on the different hypotheses that needed to be considered and what expertise did those people have in microbiology or IPC?

A. This question is a little unclear as the IMT led by Dr. Inkster was providing advice to the organisation while she was in the Chair and subsequently the new IMT Chair, who was an experienced public health consultant, then fulfilled that role. The IMT is a multidisciplinary meeting where all views should be considered and thus many experienced colleagues were attending these meetings, including HPS and other external colleagues on occasion.

49. When did you first become aware that Dr Inkster had resigned as Lead ICD. What information were you given about her reasons for her resignation and what steps did you take in response?

A. In January 2018, I received an email from Dr Redding indicating that Dr Inkster had resigned from her post as Lead ICD. The following day, the Medical Director forwarded me a copy of an email from Dr Green, Chief of Medicine for Diagnostics at that time, indicating that Dr Inkster had agreed to continue in her post as Lead ICD.

In respect of her subsequent resignation in September 2019, the Medical Director informed me that Dr Inkster had resigned. I discussed the position with her and she indicated that she was considering the issues raised in Dr Inkster's letter to her, including workload, personal issues and a range of other matters that I cannot recall. The Medical Director indicated that she was going to respond to Dr Inkster's letter and would take forward the issues.

50. What Briefings (other **than Dr Crighton's email of 14 September 2019 see Bundle 27, Volume 8, Document 43, Page 149**) did you receive about the progress of the IMT after the change of chair?

A. Progress in relation to the issues involved continued to be reported to me by the Medical Director and by the formal routine governance channels. I cannot recall any further formal briefing as the IMT members would be undertaking their routine roles which did not involve regularly briefing the Chief Executive on the functioning of the meeting. However, the new Chair of the IMT did inform me that progress was being made and that a more structured process had been put in place to address the issues and ensure progress was being made.

51. What steps did the Board take to satisfy themselves that ward 6A was safe to reopen for admissions before the decision was made to re-open the ward for admissions?

A. On 18 September 2019, I was copied in to an email whereby the Medical Director had sought input from HPS on their view on what was required to allow Ward 6A to re-open. A range of issues were contained within the email and these were copied to the Chair of the IMT as well as some of the Corporate Directors.

Following discussion with NSS, on behalf of HPS, communication was received from HPS outlining their view of the tasks to be undertaken prior to re-opening. An internal action plan was drafted and progressed with input from the IMT and, following ongoing discussion with HPS, the actions were put in place.

NHSGGC was informed that the Chief Nursing Officer would make the final decision, once all HPS actions had been completed.

The review of data by HPS was received on 25 October 2019 which indicated that there was no further reason for the ward to remain closed and thus arrangements were made to re-open it, following agreement with the local IMT, HPS and the Chief Nursing Officer.

52. Dr Gibson alongside other clinicians wrote to both you and Dr Armstrong on 30 August 2019 highlighting their concerns about infection and environment issues which had affected the unit for the past 18 month and sought an external review, (see **Bundle 6, Document 43, Page 1416**) to which you responded on 4 September 2019 (see **Bundle 8, Document 17, Page 85**). What actions were taken by you or at your direction in respect of the concerns raised and why?

A. Dr Gibson and her colleagues did write to the Medical Director and me on 30 August 2019, outlining their concerns and we responded to that letter on 4 September 2019. We had arranged for the Chief Operating Officer and the Acute Medical Director to meet with the clinicians on 2 September 2019 in the first instance to discuss their concerns. We then met with the consultants on 9 September 2019.

At that meeting, we had the opportunity to discuss the overall situation, including infection control issues, estates and public health perspectives and we collectively reviewed the work to date. Further actions were agreed at that meeting including an external peer review and the review of individual patient pathways by infection control / public health colleagues to establish any common factors for further examination. It was agreed that, in order to ensure a structured visible approach, these issues would be fed back through the IMT process.

53. What role did you have in the preparation and approval of the NHS GGC response to a list of issues raised by the families of children in the Schiehallion Unit published on 30 October 2019 (see **Bundle 6, Document 25, Page 77**) and do you consider it accurate in all respects?

A. The preparation of the NHSGGC response to the list of questions raised by the families was undertaken by a range of senior colleagues within NHSGGC, with input from Scottish Government / HPS colleagues. I was copied into these responses and have no reason to question their accuracy.

The Adult BMT Service and Ward 4B

54. The Inquiry understands the case for the return of the adult BMT Unit from the Beatson back the QEUH was the subject of a report to the Acute Services Committee in March 2017 (see **Bundle 27, volume 7, Document 6, Page 158**) albeit that this document may have been re-drafted before being presented to that committee. What was your knowledge and involvement in process?

A. I was not in post within NHSGGC at that time as I was working in NHS Forth Valley and had no knowledge of the position.

55. Dr Armstrong, in her evidence regarding the Beatson returning to the QEUH, described the balancing exercise required when considering patient safety which involves risk assessing clinical advice against governance considerations. What can you tell us about this balancing exercise and risk assessing which you, as the Chief Executive, and the Board require to undertake?

A. It is incumbent on a Chief Executive to take account of all known factors when making decisions. This covers a range of factors, primarily patient safety and quality of care but must also include complex factors covering all manner of issues, including the availability of resources. These decisions need to be informed by other senior Directors, clinical teams and the NHS Board members must be assured that all appropriate risks have been assessed. There is a clear risk management process within NHSGGC which is implemented at all levels and is actively considered at the CMT, the Board subcommittees and the NHS Board itself.

56. The March 2017 draft options appraisal document for the NHS GGC Acute Service Committee in respect of the Adult BMT unit accepts that Ward 2A RHC did not meet the standard in SHTM 03-01 (see **Bundle 27, Volume 7, Document 6, Page 158**). When were you first aware of this acceptance? Do you agree with assessment of the authors of that draft options appraisal document? Why was action not taken to ensure that Ward 2A did meet the standard in SHTM 03-01 at that time?

A. As previously stated, I was not in post in NHSGGC in March 2017, and thus I cannot comment on the option appraisal. However, the operational, estates and infection control teams would be better placed to make comment on the options appraisal as they were presumably fully involved in its construction.

My recollection is that, following further investigations during the upgrade process and the production of a specific report in relation to the ventilation, it was agreed to incorporate a full upgrade of the ventilation system into the overall scheme.

a) It has been suggested that it is not accurate to state that "ventilation within Wards 2A/B was identified as an important issue **during** the overall upgrade process" as the fact that the ventilation system in Ward 2A was not in conformity with SHTM 03-01 had been known since at least March 2017. How do you respond to that?

A. For clarity, ventilation issues had been known to NHSGGC prior to the upgrade process. As part of the upgrade scheme within Wards 2A/B, it was agreed that all known issues within Wards 2A/B should be addressed to ensure that the ward fully complied with all technical requirements. This was very complex due to the substantial technical challenges, the complex clinical arrangements that had required to be put in place for these children and the high level of capital resource required.

b) Does your answer to Question 56(a) 47 in your statement to the Inquiry of May 2025 amount to an admission that the Board's press statement of 6 December 2018 **(Bundle 5, Document 91, Page 157)** was not entirely accurate to the extent that it gives the impression that the board only became aware of the need to upgrade the ventilation system of Ward 2A after the decanting of the patients in September 2018?

A. My response to the question sought to clarify that NHSGGC had been aware of the ventilation issues prior to the upgrade rather than the original wording. While the ward was vacated, a further review of the performance of the ventilation system was undertaken and, following that review, it was agreed to fully upgrade the ventilation system in the wards while the ward was decanted to ensure every aspect of the ward had been fully addressed.

Ward 4C

57. To what extent were you aware that the ventilation in Ward 4C did not meet the air change rate, pressure differentials and requirement for HEPA filtration set out for a 'Neutropenic Ward' in SHTM 03-01 ventilation for Healthcare Premises? When did you become aware of this? Was this discussed with the Board? What risk assessment or HAI-Scribe was carried out to assess the ventilation system that was fitted to Ward 4C?

A. The ventilation within Ward 4C was raised by the HSE in 2019. The patients within this ward relate to Haematology and renal transplant which may not require specialist ventilation as it is not considered a neutropenic ward. Colleagues within NHSGGC had a discussion with the HSE on that issue. The NHS Board would have been updated on the HSE investigation as part of the routine health and safety reporting

NHSGGC sought further external clinical opinion on this issue which supported that view. However, to provide additional assurance, portable hepa filtration was deployed within the ward as an additional measure.

I cannot comment on what risk assessment or HAI-Scribe was undertaken and other colleagues within NHSGGC would be best placed to assist in that regard.

58. What awareness did you have of the concerns raised by Dr Inkster in December 2019 about the ventilation system of Ward 4C that involved a meeting with Dr Hart on 7 December 2018 and a meeting with Professor Steele on 10 December 2018 and resulted in her SBAR of July 2019 (see **Bundle 27, Volume 7, Document 22, Page 380**). Why were the recommendations of Dr Inkster's SBAR not implemented?

A. I do not recall having seen Dr Inkster's SBAR, although I understand that the issues raised were similar to those outlined in Q57.

Ventilation Concerns/ Review of Ventilation

59. When did you first become aware of concerns that the air change rate for the ventilation within the QEUH/RHC did not meet what is set down in STHM 03-01? What was the concern? Who informed you about it? What steps did you take to address these concerns? Were these concerns discussed at Board level?

A. I cannot precisely recall when I became aware of the issue relating to the air change rate for the ventilation system within QEUH / RHC .However, in 2017, I was aware of some of the concerns being raised through the SBAR process led by the Medical Director which involved the Director of Estates and Facilities and the Chief Operating Officer as well as infection control colleagues and the local management teams, Prior to this time, I assume that the Project team would have been aware of the issues.

I was also informed that there were different views associated with regard to the ventilation. In September 2018, I was forwarded an email exchange between Dr Peter Hoffman from Public Health England (who was providing external clinical and technical support) and Dr Inkster in relation to the chilled beams and ventilation. With regard to general ventilation he states that “the air change rate is irrelevant.” It goes on to state “Three or six air changes – doesn’t matter. Six air changes is the generally accepted level for temperature and odour control – no relevance to infections”. Thus, I was aware of his view on the air change issues as well as the local concerns.

a) With reference to your answer to Question 59 in your statement to the Inquiry of May 20125 is the email exchange between Dr. Inkster and Mr. Hoffman to which you refer to be found in **Bundle 14, Volume 2, Document 191 at pages 140-147** and did you see the whole of the email from Dr. Hoffman of 16 September 2018 at 22.12 at the time?

A. My response to Q59, relates to the question of when I became aware of the concerns that the air change rates for the general wards did not meet STHM 03-01. I have seen the email from Dr. Hoffman outlined.

60. What risk assessments, if any, whether in compliance with the standards in HAI Scribe or otherwise were carried out by NHS GGC during the period you were Chief Executive into whether the lower air change rate outside isolation rooms and Ward 4B were causing any risk to patient safety?

A. I am unaware of the detailed, overall position with regard to risk assessments in Ward 4B. I am aware that work was undertaken in relation to any potential risk within Ward 4C and with regard to Wards 2A/B. However, the majority of these issues would be undertaken at a local level and would not routinely involve the Chief Executive, although I appreciate a number of them they were being considered as part of the SBAR process.

61. The Inquiry understand that Jim Leiper was appointed to conduct a ventilation review of the Queen Elizabeth Hospital (see **Bundle 23, Document 89, Page 872**). What was your involvement in instructing Mr Leiper's review? What was the Board's involvement in the instruction of Mr Leiper's review? What was the outcome of the review? Was this discussed at Board level? What actions, if any were then taken?

A. Following a discussion with the interim Director of Estates and Facilities, Jim Leiper was appointed to provide additional technical expertise into the Estates and Facilities department. He was asked to review the systems, improve governance and support training accreditation for the AP / CP. The review provided a better, full understanding of the systems. I do not recall his specific work being discussed at Board level, however, his findings did inform the work within Wards 2A/B and, thus, to that extent, there was awareness of his work at Board level.

His work had a number of strands, including water and ventilation and he worked on both areas to support the ongoing actions in line with the other reports that were being drafted.

a) In her statement of June 2025 at paragraph 36, Jeane Freeman discusses remedial work to the ventilation system of Wards 2A and 2B that was then planned. She advises that you told her that this work was “going beyond the standard in place when QEUH was built”.

(i) Do you recall this conversation with Ms Freeman?

(ii) Would it be accurate to say that the remedial work to the ventilation system of Wards 2A and 2B went “beyond the standard in place when the QEUH was built”?

(iii) What standard did you have in mind?

A. The Chair and I had many conversations with Ms Freeman during that period and, while I do not recall the precise detail of that conversation, we did discuss the position with regard to Wards 2A/B on a number of occasions.

My understanding is that the ventilation system that was eventually put in place within Wards 2A/B was an optimal solution to ensure that all known risk had been considered to address any future issues, recognising that no solution can be entirely risk free for this group of patients.

Horne Taps

62. The QEUH/RHC uses large numbers of Horne Optitherm Taps. Following neonate deaths at hospitals in Northern Ireland and Western Australia a meeting was held with representatives of HPS, HFS and others on 5th June 2014 (see **Bundle 15, Document 9, Page 692 and the HPS SBAR of 2014 Bundle 3, Document 1, Page 5)**. What is your understanding of the decision that then faced NHS GGC in respect of the use of Horne taps within the new SGH? Who ultimately made the decisions to continue with the use of these Horne taps in the new SGH and what was reported to you at the time?

A. I was not present at these meetings and was not working in NHSGGC at that time so cannot comment on the decision that faced NHSGGC.

63. What steps did you take as Chief Executive and Duty Holder to ensure that these Horne Optitherm Taps were maintained in such a manner as to prevent the growth of pseudomonas and other micro-organisms in and from these taps? What instructions did you give to members of the Board Water Safety Group and what reports did you request and receive on the installation, operation and safe maintenance of these taps?

A. As previously outlined, I was not in post at service commencement in 2015. I would have expected that colleagues within Estates and Facilities would have put in place appropriate mechanisms to maintain these taps. These matters would routinely have been addressed by the Estates and Facilities team or, during construction, the Project team.

Cryptococcus

64. Why did you write your letter to patients and parents of 23 January 2019? Who provided you with advice on the terms of the letter?

A. Letters were sent to the families of patients attending for both inpatient and outpatient treatment. The contents were drafted by senior colleagues, including the Site Director and members of the Communications team. The Chief Operating Officer also had oversight of the letters. The purpose of the letter was to notify them of the ongoing investigations into Cryptococcus, confirmation that there had been no new cases and also to notify them of work being undertaken in the shower rooms.

65. What is your understanding of the role (if any) that the fact that both patients who died in the QEUH/RHC after contracting Cryptococcus neoformans were accommodated in rooms without HEPA filtration whilst unable to be prescribed prophylactic anti-fungal medication played in them contracting that infection?

A. I cannot comment on the clinical condition of patients as I do not have that expertise and the clinicians would be best placed to respond to that question.

a) Have you read Professor Hood's subgroup report? If you did, do you know whether both patients who died in the QEUH/RHC after contracting Cryptococcus neoformans were accommodated in rooms without HEPA filtration whilst unable to be prescribed prophylactic anti-fungal medication played in them contracting the infection?

A. I have read Professor Hood's report but I do not have the appropriate clinical or technical expertise to comment on the clinical treatment of these two patients. In my role as Chief Executive, I would not make decisions in relation to individual patients as the clinical teams are best placed to make such decisions.

66. Why and how was the Cryptococcus Subgroup set up and who was chosen to serve on it and why?

A. The Cryptococcus subgroup was established by the IMT as a subgroup of the IMT. I cannot comment on who was chosen to serve on it and the reasons associated with that decision as I was not involved in the establishment of the Group.

67. How were you and the Board provided with updates from the work of the Cryptococcus IMT and the Cryptococcus Subgroup?

A. I was provided with updates from the Director of Estates and Facilities, the Medical Director and by updates to the various Board committees.

68. How was it that the decisions of the work of the subgroup at the Board (including on 25 February 2020) appear to have included the reporting that certain hypotheses had been discounted in advance of the final report (see **Bundle 14, Volume 2, Document 125, page 455**)?

A. I am not aware of the detailed reasons why certain hypotheses were considered less plausible than others as this work was being undertaken by those with both the clinical and technical experience to consider these matters in detail. The information to the NHS Board would have been provided by those undertaking the investigations.

69. Were the Board seeking to rule out hypotheses and force a conclusion on the likely cause being reactivation before full investigations had been completed?

A. I believe that colleagues who were undertaking this investigation undertook the work to the best of their ability in difficult circumstances. I have never seen any evidence that any conclusion was “forced” by any colleagues and there were extensive investigations undertaken to try and establish the precise nature of what had occurred, and, therefore, I do not consider this to be a true reflection of the position.

The Performance Escalation Framework

70. Please explain the circumstances surrounding the escalation of NHS GGC from Stage 2 to Stage 4 of the Performance Escalation Framework and then back to Stage 2. Why did it occur? What explanation was given to the board? Was it justified?

A. On 22 November 2019, NHSGGC was escalated to Stage 4 of the Performance Escalation Framework in relation to the systems, processes and governance surrounding infection prevention, management and control at the QEUH and the RHC and the associated communication and engagement issues. The Chair and I received a letter from the Director General for Health and Social Care and Chief Executive of NHS Scotland, indicating the escalation to Stage 4 and that an Oversight Board would be put in place, chaired by Professor Fiona McQueen, the Chief Nursing Officer at Scottish Government. The letter stated that Stage 4 is defined as “significant risk to delivery, quality, financial performance or safety; senior level external transformational support required”.

The complexities associated with the situation at QEUH / RHC were multiple so I anticipated that additional support would be helpful to bring some balance and additional external expertise to the debate and also to ensure that, within NHSGGC, all possible areas were being explored to address the situation. Following significant work and the agreement of the Advice, Assurance and Review Group, which was a joint group with Scottish Government, NHSGGC was de-escalated in 2022.

71. What is your view on the effectiveness of the escalation process?

A. The escalation process brought an enormous amount of additional work, in addition to the very significant additional work being undertaken locally to address the issues. In addition on 24 January 2020, NHSGGC was further escalated as a Board in relation to a number of performance issues which brought further additional work. The work of the three subgroups associated with the initial escalation – Infection Prevention and Control, Communications and Engagement and a Technical Group as well as the Oversight Board generated a very heavy workload and took time to service and support, as there were a large volume of papers and presentations required which took time from key senior personnel who were already trying to deal with an enormous range of issues and, at times, this was detrimental to the overall running of NHSGGC. The timing of these escalations and the work involved put a very significant strain on an already seriously stretched system. In addition, this was at the very beginning of the COVID pandemic and, thus, the combination of all these factors, as well as continuing to manage the day-to-day issues associated with the largest NHS Board in Scotland and one of the largest in the UK brought overwhelming pressure on the senior team which was difficult to overcome.

<u>The Case Notes Review</u>

72. Please describe the process involved for the Case Note Review from the point of view of NHS GGC. Please include how this was established, who established it, who from NHS GGC was involved, what work was done by NHS GGC to support it, what access NHS GGC had to its reports and conclusions and any relevant outcomes?

A. The Casenote Review was established by the Scottish Government and led by Professor Marion Bain who had been appointed by the Scottish Government. She informed me of a plan in early 2020. I had no direct input into its formation or its method of operation. It was led externally by the CNR team, with NHSGGC being asked to provide detailed information to inform the Review. I was not

regularly involved in the various working groups but I was updated at a high level by Professor Bain as NHSGGC had limited involvement in its establishment, processes or progress, with the main input being the provision of information at a very detailed level. NHSGGC was not provided with the detailed outcome of each patient's review or the methodology associated with that conclusion. NHSGGC were given sight of the draft report in order that any matters of factual accuracy could be outlined and NHSGGC sent back a detailed response to this draft report as we considered there were a number of areas where the report was not factually accurate.

73. Referring to the Case Note Review Overview Report March 2021 (see **Bundle 6, Document 38, Page 975**) what was the conclusions of the Case Note Review in respect of the role of the hospital environment as a source of infection?

A. The Casenote Review made 43 recommendations covering a number of issues, with the majority being applicable to NHSGGC but some had implications for NHS Scotland and to the Managed Service Network for Children and Young People with Cancer.

Within the Casenote Review, it outlined a range of possible scenarios ranging from unrelated, weak positive to strong possible and possible for the number of episodes and the likelihood of them being linked to the hospital environment. The Casenote Review also acknowledges that there is a degree of uncertainty and recognises that this may be distressing for families and also highlights the fundamental challenge of identifying a specific source in all such infections.

74. Did NHS GGC make any public statement after the publication of the Case Note Review Overview Report? What was that statement and why was it made?

A. NHSGGC did make a public statement on 22 March 2021 following the publication of the Casenote Review which sought to reassure the patients, families and staff that NHSGGC were taking the issues extremely seriously and accepted that there was important learning for NHSGGC and would ensure that all appropriate actions were taken to address the issues indicated. We also wanted to outline the actions that had already been taken and to recognise and apologise for the added pressures and distress caused to the patients, families and staff. The statement also indicated that NHSGGC was fully committed to continuing to improve and to implementing the recommendations from these reviews.

75. Why did you write your letter to Professor Mike Stevens of 1 March 2021 (see **Bundle 25, Document 3, Page 151**) in the terms that you did? What was the source of the information on the third page of the letter about an approach being made to the Royal College of Nursing about the conduct of an un-named microbiologist in 2018?

A. The draft CNR was sent to NHSGGC for comments on factual accuracy. It was shared with a number of colleagues who expressed some disquiet about some of the statements within it and also, NHSGGC wished to ensure that the report could be used as a basis for further improvement and continued learning rather than become a source of ongoing debate. There were a range of issues highlighted which are outlined in the letter and colleagues wanted to ensure that the CNR team were fully appraised of their views.

I was informed of the approach to the RCN by the Nurse Director who informed me of the situation and that she would progress the matter with the Medical Director as outlined in the letter.

76. Why did you write your letter to Professor Mike Stevens of 5 March 2021 (see **Bundle 25, Document 3, Page 155)** in the terms that you did? What was your objective in writing the letter?

A. A further letter was sent to Professor Stevens on 5 March 2021, following a meeting we had with him and his team on 4 March 2021. The letter stated that "we entirely understand that this is an independent report and it is for you to consider the content", however, we wanted to seek some support from him in a number of areas. It was to confirm the discussion that had been held, to seek some assistance from him and his team in providing their view on the current infection rates and to bring one further issue to his attention relating to the dynamics of the team working issues that had been raised. The letter also thanked him and his team for their work and expressed our appreciation for his offer of assistance with implementing some key recommendations.

77. How were the conclusions/recommendations of the Case Note Review received by GGC?

A. NHSGGC accepted all of the recommendations within the Casenote Review and publicly stated that position in the statement of 22 March 2021.

a) With reference to your answers to Questions 74 and 77 in your statement to the Inquiry of May 2025 please review the Core Brief of 22 March 2021 (see **Bundle 25, Document 61, Page 1260**):

(i) Does the Core Brief contain an accurate statement of the public response of NHSGGC to the publication of the CNR Overview Report at the time it was made?

(ii) Would a reader of the Core Brief of 22 March 2021 be entitled to conclude based on that statement that NHSGGC accepted the principal conclusion of the CNR Overview Report (see **Bundle 6, Document 38, Page 975 at Page 981**) that 30% of the infection episodes they reviewed were probably related to the hospital environment? If not, why not?

(iii) It is the current position of NHSGGC in its most recent submission to the Inquiry that NHSGGC does not accept that anything contained in the CNR can properly justify any adverse inference about the safety of the water, drainage or ventilation systems at the QEUH. If this was the position of NHSGGC on 22 March 2021 why this was not made clear in the public statement of 22 March 2021?

A. I consider that the Core Brief did reflect NHSGGC's response to the publication of the Oversight Board report and the Case Note Review at that time.

NHSGGC fully accepted the recommendations outlined within the reports and also recognised the significant concerns raised by the issues for patients, their families at an already difficult time and the Core Brief sought to recognise the very difficult position of patients and their families and wanted to fully apologise for the additional concerns caused to them. It was difficult to establish how exactly the conclusions were reached as NHSGGC were not party to any detailed analysis but it was absolutely recognised that there was learning from the situation for the future.

NHSGGC accepted the recommendations within the CNR report and the Core Brief states that position.

Since that time, considerable further work has been completed including Whole Genome Sequencing developments and the provision of the more recent, external expert reports which were not available at the time outlined and offer additional information and a differing perspective to the position outlined within the Casenote Review. This information was not available at the time of the publication of the Casenote Review. However, as stated above, the main issue in 2021 related to ensuring that NHSGGC took steps to address the recommendations to ensure that everything possible was being completed.

78. What steps have been taken by NHS GGC to implement each of the separate recommendations of the Case Note Review, when they were taken and to what extent do you consider the implementation to have been effective?

A. A comprehensive action plan covering all 108 recommendations from the various reviews (including the Fraser / Montgomery report, the CNR and the Oversight Board Review) compiled and individual recommendations allocated to a number of senior colleagues who were required to report on progress at regular intervals. The overall action plan was also monitored by the AARG at Scottish Government and they sought to assure themselves that all the actions had been completed prior to de-escalation in 2022.

The actions covered a range of issues and all continued to be monitored on a cyclical basis to ensure ongoing compliance for those that were of a recurring nature.

79. How can the Inquiry and the general public be satisfied that NHS GGC have implemented the recommendations of the Case Note Review?

A. As outlined in Q78.

a) Please review QEUH – Case Note Review – Feedback from meeting with RHC clinicians and wider reflections for the Oversight Board – 17 June 2021 and the enclosed letter to you dated 1 June 2021 from Professor Stevens, Chair of the CNR.?

(i) What steps did you take to investigate the issue raised by Professor Stevens?

(ii) Why was the microbiology and other data generated within NHSGGC and collated for use by the CNR not made available to a Consultant Microbiologist working at the QEUH / RHC in the first half of 2021?

A. In relation to the letter of 1 June 21, I discussed the position with the Chief Operating Officer and the Acute Medical Director as I was unaware of the details. They agreed to investigate the position and provide a response following discussion with colleagues in the Acute Division. That response was sent back to

Professor Stevens on 25 June 2021, outlining the communication process and the fact that the data would now be shared. Unfortunately, at a later date, I was informed that one element of the letter was incorrect and a further letter was issued to Professor Stevens clarifying the position.

b) The Inquiry understands that on 13 June 2022 on the occasion of the reduction of NHSGGC from Level 4 to Level 2 of the escalation framework the then Cabinet Secretary for Health, Humza Yousef stated that he was assured and confident that all the recommendations from the published reports were complied with:

(i) Who provided him with that assurance and what form did it take?

(ii) How is the Minister's statement that he had been assured that all the recommendations from the published reports (including the CNR) had been complied with, consistent with that NHSGGC not accepting that anything contained in the CNR can properly justify any adverse inference about the safety of the water, drainage or ventilation systems at the QEUH?

A. An AARG (Advice, Assurance and Review Group) had been formed which included representatives from the Scottish Government and colleagues from within NHSGGC which reviewed all the recommendations from the reports, considered progress and ensured that the recommendations had been implemented. SG colleagues on this group sought further, more detailed information on a number of issues prior to any acceptance of the NHSGGC position. I am not aware of the precise mechanism to brief the Cabinet Secretary as it was undertaken by Scottish Government colleagues but I believe it was informed by the work of that Group.

As outlined in Q30, additional insight and analysis in relation to whole genome sequencing and the more recent, external expert reports has provided additional information which provides a differing perspective from the one outlined at that time.

However, NHSGGC, in 2021 / 22 was keen to ensure that all recommendations that had been made were implemented to ensure that all issues identified by external parties had been addressed. As these issues had been recommended by external parties, NHSGGC took the view that every effort should be made to implement the recommendations to strengthen the infection control and operational management processes for the future.

The Oversight Board

80. Please describe the process involved for the Oversight Board from the point of view of NHS GGC. Please include how this was established, who established it, who from NHS GGC was involved, what work was done by NHS GGC to support it, what access NHS GGC had to its reports and conclusions and any relevant outcomes?

A. The Oversight Board was established by the Scottish Government following the escalation to Stage 4 of the performance escalation. Three subgroups were established to support the Oversight Board. I was not a member of the Oversight Board, although did attend a number of the meetings. The Oversight Board was chaired by Prof. F McQueen, the Chief Nursing Officer within the Scottish Government and members included Dr K Morris, Hazel Borland, Prof Craig White, Irene Barkby, Dr A Murray, Lesley Shepherd and Phil Raines. Senior managers within NHSGGC were asked to attend on particular issues but were not members of the Oversight Board.

NHSGGC were required to produce updates on the key issues as requested by the Oversight Board and members of the NHSGGC team presented to the Oversight Board on a range of issues. NHSGGC did have access to a number of reports from the Oversight Board and sought to work collaboratively with them over the issues identified.

81. Have you read the Interim Report and/or Final Report of the Oversight Board and noted its local recommendations in respect of (a) Governance and Risk Management and (b) Communications and Engagement?

A. Yes, I have read both reports and the appropriate recommendations were addressed as part of the overall action plan.

82. What steps have been taken by NHS GGC to implement each of the separate recommendations of the 'Local Recommendations' of the Oversight Board, when were they taken and to what extent do you consider the implementation to have been effective? Please provide evidence to support each effective implementation?

A. As outlined above, an overall action plan was developed and monitored through the AARG process to ensure external scrutiny of its contents and the progress being achieved. The recommendations cover different timescales as some are only applicable to certain projects, while others are a recurring requirement. Steps were taken to ensure that all the recommendations had been implemented and Scottish Government colleagues were provided with evidence of the work on the local recommendations. Following that assurance process, NHSGGC was de-escalated as the Scottish Government was content with the progress that had been made.

83. Please refer to the annual audit report for NHS GGC from Audit Scotland for 2021 (see **Bundle 29, Document 17, Page 653)**. At pages 25 and 26 it states that a Gold Command delivery group has been established to oversee the delivery of actions in response to the Oversight Board Report and Case Note Review of which you were Chair. What was the role of the Gold Command Delivery Group? What was your role within the Gold Command Delivery Group? What did the Gold Command Delivery Group do to implement the 'Local Recommendations' of the Oversight Board?

A. The Gold Command delivery group, which I chaired, was established to ensure that all areas within the action plan were being addressed and that wider issues

such as patient feedback were also being considered to ensure the quality of care at the QEUH was appropriate.

a) What did the Gold Command Delivery Group do to implement the 'Local Recommendations' of the Oversight Board?

A. The Gold Command Delivery Group was established to ensure a dedicated programme approach to sustained quality and service improvements on the QEUH site. Four key areas were identified as being within scope – Better Performance, Better Care and Experience, Better Together and Better Safe, Clean and Clinical environment. These areas directly aligned with a number of the external and oversight processes. The Group covered a wide range of issues including a number of those outlined within the various external reports, including the Independent Review and the Oversight Board report and progress was monitored on a number of issues through that forum.

This Group, however, as outlined, had a wider remit relating to issues within the QEUH campus. There were also some issues within the external reports that were dealt with in other fora as they had Board-wide implications and were, thus, not exclusively related to the QEUH site.

84. How can the Inquiry and the general public be satisfied that NHS GGC have implemented the 'Local Recommendations' of the Oversight Board?

A. As outlined in Q82.

85. Is there anything further that you want to add that you feel could be of assistance to the Inquiry?

A. This has been an extremely challenging set of circumstances for NHSGGC to address. NHSGGC is by far the largest health care system in Scotland with a very large budget, £4.4 billion, and a workforce of around 41,000 staff. It provides local, secondary and tertiary services to some of the most vulnerable in our society. Clinical services within NHSGGC are of a high calibre and I regret that

significant concern and distress has been added to the patients, families and our staff over the last few years associated with these issues.

It is, however, incumbent on all parties to reflect and consider how best to address very complex issues that often do not have an easy solution. The period from 2018 onwards was one of unimaginable complexity, with the infection control and performance escalation, the COVID pandemic and the need to take legal action against the main building contractor of QEUH / RHC.

There has been a very significant amount of political and media scrutiny which has led to a huge amount of additional work in order to try and ensure that a true and balanced view of the situation is portrayed in the interests of ensuring that the public does not have an unjustified view that the hospital is unsafe. That approach has not always been easy or optimal and we have reflected long and hard on how such issues can be managed in the future to ensure there is learning for NHSGGC and, more widely, across Scotland.

NHSGGC at all levels is fully committed to ensuring patient care and safety are afforded the highest priority and this has always been the case.

Declaration

I believe that the facts stated in this witness statement are true. I understand that proceedings for contempt of court may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

The witness was provided with the following Scottish Hospital Inquiry documents for reference when they completed their questionnaire statement.

Appendix A

A43255563 - Bundle 1 – Incident Management Team Meeting Minutes (IMT Minutes)

A43273121 - Bundle 3 – NHS National Services Scotland Situation: SBAR documentation

A43299519 - Bundle 4 – NHS Greater Glasgow and Clyde: SBAR documentation

A43293438 - Bundle 6 – Miscellaneous Documents

A43955371 - Bundle 8 – Supplementary Documents for the Oral hearing commencing on 12 June

A47390519 - Bundle 11 - Water Safety Group

A47069198 - Bundle 12 – Estates Communications

A48890718 - Bundle 13 – Additional Minutes Bundle (AICC/BICC)

A49525252 - Bundle 14, Volume 1 - Further Communications

A48541141 - Bundle 14, Volume 2 – Further Communications

A47664054 - Bundle 15 – Water PPP

A47851278 - Bundle 16 – Ventilation PPP

A49342285 – Bundle 17 - Procurement History and Building Contract PPP

A48408984 - Bundle 19 – Documents referred to in the Quantitative and Qualitative Infection Link expert reports of Sid Mookerjee, Sara Mumford and Linda Dempster

A48946859 - Bundle 20 – Documents referred to in the Expert Reports by Andrew Poplett and Allan Bennett

A49618520 - Bundle 23 – Queen Elizabeth University Hospital and Royal Hospital for Children, Isolation Rooms PPP

A49585984 – Bundle 25 - Case Note Review Expert Panel, Additional Reports and DMA Canyon

A49615172 - Bundle 26 – Provisional Position Papers

A49799834 - Bundle 27, Volume 4 – Miscellaneous Documents

A50091087 - Bundle 27, Volume 5 - Miscellaneous Documents

A50002331 - Bundle 27, volume 7 – Miscellaneous Documents

A50039563 - Bundle 27, Volume 8 – Miscellaneous Documents

A50976317- Bundle 29, NHS Greater Glasgow and Clyde Audit Reports

A50976001- Bundle 29, NHS Greater Glasgow and Clyde Audit Reports

A50976005 – Bundle 29, NHS Greater Glasgow and Clyde Audit Reports

A53511130 – Bundle 51, Volume 1 – Sir Robert Francis Whistle-blowing Expert Report and Supporting Documents

A43501437 - Bundle of witness statements for the Oral hearing commencing 12 June 2023

A49847577 - Witness Bundle - Week commencing 2 September 2024 - Volume 3

A50581587- Transcript of Professor Steele

A50766285 – Transcript - Professor White

Appendix B

NHS Greater Glasgow & Clyde

Timeline of events and actions from March 2018 –June 2019

Date	Situation	Evidence

02/03/18	March 2018: Water Incident Management Team IMT was convened following the identification of a gram negative bacteraemia in Jan 2018 with an organism which had been seen in 2016 in the aseptic pharmacy, on this occasion	**Minutes form IMT**

	when this area was investigated again all samples were negative. It was reported by the Lead Infection Control Doctor (LICD) that the same organisms had been isolated from samples taken from the drains in the ward. Further bacteraemia with separate organism also reported, one outlet reported to be positive with same organism. HIIAT was RED HPS not in attendance Water dosing with Silver hydrogen peroxide organised in 2 phases. Replacement of outlets commenced	1. Water Incident Ward 2A RHC IMT Mi **[A36690451 - Bundle 1, Document 13, Page 54]** HIIORT 2A Water supply 130418.doc **[A36690585 - Bundle 52, Volume 3, Document 11, Page 54]**
06/03/18	IMT held No new cases reported LICD reported on another organism which had not been found in any patient in ward 2A but had been found following the sampling. *NB: at this time the hypothesis was that the source is the outlets themselves, confirmed by microbiological testing of the taps and showers and negative samples from the water tanks. The most likely mechanism is via contact. Discussion took place around the possibility of contact from domestic staff and parents* HIIAT was RED HPS not in attendance Water dosing still to be completed. Water testing increased to monthly	2. Water Incident Ward 2A RHC IMT mi **[A36690471 - Bundle 1, Document 14, Page 56]**
09/03/18	IMT held No new cases reported. HIIAT was RED HPS was not in attendance Control measures agreed and replacement of taps ongoing.	3. Water Incident Ward 2A RHC IMT Mi **[A36690458 - Bundle 1, Document 15, Page 60]**
12/03/18	IMT held No new cases reported. Water samples continue to be positive. Samples sent for typing	4. Water Incient Ward 2A RHC IMT Minutes

	HIIAT was RED HPS not in attendance Replacement of taps and showerheads in progress. Portable clinical hand wash sinks to be put in place as all taps out of use until silver hydrogen peroxide dosing completed and taps retested.	**[A36690457 - Bundle 1, Document 16, Page 63]**
16/03/18	IMT held 4 new cases reported of gram negative bacteraemia with different organism from previous cases. 3 HAI - 2 in ward 2A and one in PICU. 1 non HAI. HIIAT was RED HPS in attendance LICD requested support from Health Facilities Scotland and Health Protection Scotland as the original Hypothesis of the incident is different due to positive water results in other ward areas and not the transmission of the organisms from sink to showers by staff only on 2A. The outlets appear to be the problem. Point of use filters to be fitted to all taps. Ward 2A to be completed first.	5. Water Incident Ward 2A RHC IMT Mi **[A36690477 - Bundle 1, Document 17, Page 66]**
19/03/18	IMT held No new cases reported HIIAT was RED HPS was in attendance. Control measures in place for both the ward and water system	6. Water Incident Ward 2A RHC IMT Mi **[A36690507 - Bundle 1, Document 18, Page 70]**
21/03/18	IMT held No new cases reported. HIIAT was RED HPS was in attendance Public Health and Health Protection Scotland have been asked to assist with the epidemiology of the incident.	8. Water Incident Ward 2A RHC IMT Mi **[A36690549 - Bundle 1, Document 19, Page 75]**

23/03/18	IMT held No new cases reported. Epidemiology shows no link between case in PICU and cases in ward 2A HIIAT was RED HPS was in attendance Ward control measures in place Water system control measures in place	9. Water Incident Ward 2A RHC IMT Mi **[A36690544 - Bundle 1, Document 20, Page 81]**
27/03/18	IMT held No new cases reported. One of the cases reported 02/03/2018 - The group has decided to exclude this patient case from the incident as it is not linked to any of the samples taken. HIIAT was AMBER HPS in attendance IMT closed. Several control measures remain in place.	10. Water Incident Ward 2A RHC IMT Mi **[A36690556 - Bundle 1, Document 21, Page 86]** Full Incident Management Team R **[A43872127 - Bundle 8, Document 6, Page 53]**
04/06/18	IMT held 7 new cases reported of gram negative bacteraemia associated with 2A/2B from April 2018 to May 2018. 3 were HAI. One of the actions of following various PAG's was to have the swabbed. This was the first meeting held specifically in relation to the contaminated drains. HIIAT was RED HPS were in attendance Control measures in place. Plan for HPV cleaning of the wards. Concern voiced by clinicians about admitting patients to the ward. Admissions to ward restricted	1. IMT Water Incident Ward 2A RHC 04 06 1 **[A36690448 - Bundle 1, Document 23, Page 94]** HIIORT Water system incident 6.6.18 (3).doc **[A36690593 - Bundle 52, Volume 3, Document 11, Page 95]**
06/06/18	IMT held No new cases reported. Admissions to ward remain restricted. HIIAT was RED HPS in attendance All gram negative bacteraemia's noted to be unique strains on typing.	2. IMT Water Incident Ward 2A RHC 06 06 1 **[A36690461 - Bundle 1, Document 24, Page 99]**

	Noted in the minute " Scottish government have a list of questions sent to HPS which Annette Rankin and Dr Inkster will answer" HPV cleaning had been started in ward 2A	
08/06/18	IMT held. No new cases reported HIIAT was RED HPS in attendance HPS updating Scottish Government daily HPV cleaning will be finished 08/06/2018 in ward 2A, and commenced in ward 2B over the weekend. Meeting to be held with clinicians, management and microbiology to discuss concerns.	 3. IMT Water Incident Ward 2A RHC 08 06 1 **[A36690464 - Bundle 1, Document 26, Page 109]**
11/06/18	IMT held No new cases reported Admission to be decided on a case by case basis HIIAT was RED HPS was in attendance Plan to replace waste pipes drawn up with Facilities and Estates in 2A Further HPV cleaning to be carried out following waste pipe replacement.	 4. IMT Water Incident Ward 2A RHC 11 06 1 **[A36690462 - Bundle 1, Document 27, Page 114]**
12/06/18	IMT held 1 new case reported HIIAT was RED HPS in attendance Waste pipe replacement and HPV cleaning continuing in wars 2A	 5. IMT Water Incident Ward 2A RHC 12 06 1 **[A36690486 - Bundle 1, Document 28, Page 119]**
14/06/18	IMT held No new cases reported. Ward 2A taking admissions but restricted to give access to single rooms for work to be carried out. HIIAT was RED HPS in attendance.	 6. IMT Water Incident Ward 2A RHC 14 06 1 **[A36690460 - Bundle 1, Document 29, Page 123]**
15/06/18	IMT held 2 new cases reported. 17 in total HIIAT was RED	 7. IMT Water Incident Ward 2A RHC 15 06 1

	HPS in attendance Plans discussed for the introduction on Chlorine dioxide dosing of the water system, Not likely to be in place until November 2108 Teleconference with HPS, NHSGGC and Scottish Government	**[A36690521 - Bundle 1, Document 30, Page 128]**
18/06/18	IMT held. No new cases reported. HIIAT was AMBER HPS in attendance.	8. IMT Water Incident Ward 2A RHC 18 06 1 **[A36690540 - Bundle 1, Document 31, Page 132]**
21/06/18	IMT held. No new cases reported. Ward open to all admissions HIIAT was GREEN HPS in attendance IMT closed with agreement that if there were any new cases in the next 2 weeks the IMT would be reconvened.	9. IMT Water Incident Ward 2A RHC 21 06 1 **[A36629264 - Bundle 1, Document 32, Page 136]**
5/09/18	The Water Incident Management Team (IMT) was reconvened after three cases of gram negative bacteraemia was identified in haematology/Oncology patients in ward 2A. It was reported by the Lead Infection Control Doctor (LICD) that the same organisms had been isolated from samples taken from the drains in the ward. None of the 3 patients were an HAI by the 48 hour rule but by definition were healthcare associated. Health Protection Scotland (HPS) and Health Facilities Scotland (HFS) were both represented at this meeting, therefor our obligation with regards to reporting as outlined in Chapter 3 of the National Infection Prevention and Control Manual were met. HPS are responsible for reporting any incidents/outbreaks which score RED or AMBER to the HAI Policy Unit in Scottish Government Health Directorates. Each time the group meet the incident is score using a national tool called the Hospital Infection Incident Assessment Tool (HIIAT) At this meeting the incident was scored as GREEN.	Minutes from IMT IMT minutes 5 9 18 FINAL.docx **[A36629284 - Bundle 1, Document 35, Page 149]**

	Board Medical Director/Chief Operating Officer/Press Office updated after the meeting by the LICD. This was also reported in the Board Directors weekly report on the 5th September. NB *At this time the hypothesis was that the insertion of pall filters into the sinks to filter any bacteria in the water reduced the space between where the water come out of the system i.e. end of filter and the drain. Because this space was reduced the pressure when the water hit the drain was subsequently increased and this pressure was causing aeroionisation of bacteria from the drains into the general area around sinks and that this was subsequently being introduced to patients via environment or equipment. Drain inspection and cleaning were the main actions. It is noted in the minute that at that time drain cleaning was not recommended because of the potential risk of legionella.* Copy of NHSGGC SOP attached for information on normal process for managing outbreaks and incidents.	 HIIAT.docx **[A36690583 - Bundle 52, Volume 3, Document 47, Page 330]**  IPC 05.09.18.doc **[A36690669 - Bundle 52, Volume 3, Document 21, Page 134]**  outbreak-sop-final-version-oct-2017-_2_.p **[A36690673 - Bundle 52, Volume 3, Document 4, Page 20]**
10/09/18	IMT One new case. At this point the four cases were added to the overall time line taking the number to 21 for 2018. The cases included all that had organisms grown from blood cultures that were also that were also grown from water or drains. HPS in attendance. HIIAT assessed as GREEN Programme of drain cleaning in progress and review of some parts in the drainage system.	 Minutes Ward 2A IMT 10.9.18.docx **[A36629302 - Bundle 1, Document 36, Page 154]**

12/09/18	Weekly Directors report attached which includes an update on the situation in 2A/B	IPC 12.09.18.doc **[A36690605 - Bundle 52, Volume 3, Document 22, Page 137]**
13/09/18	IMT New case – Cases now 22 HPS in attendance Prof. Gibson reported that she was meeting with the Director of Women and Children Directorate on the 14/09/18 to discuss her concerns and those of the other clinicians. HIIAT assessed as RED This minute records that: "The Scottish Government have asked a couple of questions regarding the patients in Ward 2A/B and if there are any options to move patients out with the hospital or to any other area. They also asked for assurances that children are safe. Senior Managers and directors met that afternoon to discuss options listed in the minute.	Minutes Ward 2A IMT 13 9 18.doc **[A36629307 - Bundle 1, Document 37, Page 160]**
14/09/18	Senior members of the IMT met with staff from the unit to update them.	
14/09/18 pm	IMT HIIAT assessed as RED. Contingency arrangements discussed (see minute attached) Recommendations from IMT went to Board Directors. It was agreed that admissions would be restricted to emergences meantime. HPS in attendance	Minutes Ward 2A IMT 14 9 18.doc **[A36629309 - Bundle 1, Document 38, Page 164]**
17/09/18	IMT New case – total now 23 HIIAT RED – Board Exec Group will wait for results from drain survey before a decision is taken possible decant. Admission restrictions remained in place. HPS & HFS in attendance.	Minutes Ward 2A IMT 17 9 18.doc **[A36629315 - Bundle 1, Document 39, Page 169]**

17/09/18	Paper re options prepared by W & C SMT Decant operational log SOP TITLE - PAEDIATRIC EMERGENCY TEAM RESPONSE (including PAEDIATRIC MAJOR HAEMORRHAGE TEAM) TO PAEDIATRIC PATIENTS TEMPORARILY DISPLACED TO WARDS 4B and 6A of QEUH Child Protection Paper	ward 2a decant paper 2018.docx **[A36591715 - Bundle 6, Document 14, Page 38]** Copy of Decant Operational Log forW **[A36690559 - Bundle 52, Volume 3, Document 28, Page 169]** SOP for RHC patients in QEUH wards 4B 6A **[A36690661 - Bundle 52, Volume 3, Document 29, Page 179]** NHSGGC Child Protection Service dec **[A36690636 - Bundle 52, Volume 3, Document 25, Page 154]**
18/09/18	IMT Chief Operating Officer (COO) confirmed that after taking advice from the IMT and Water Group that plans would be put in place to decant the ward to 4B and 6A in the adult hospital (4B was is adult BMT). HIIAT assessed as RED HPS and COO in attendance.	Minutes Ward 2A IMT 18 9 18.doc **[A36629310 - Bundle 1, Document 40, Page 175]**
19/09/18	IMT HIIAT assessed as RED Plans to decant being put in place including patient pathways, medical and nursing ratios etc. HPS/HFS and COO in attendance	Minutes Ward 2A IMT 19 9 18.doc **[A36629316 - Bundle 1, Document 41, Page 180]**

20/09/18	IMT New patient – total now 24 (this was the last cases associate with this incident) HIIAT assessed as RED HPS in attendance.	Minutes Ward 2A IMT 20 9 18.doc **[A36629320 - Bundle 1, Document 42, Page 185]**
21/09/18	Decant meeting with Directorate	
21/09/18	Inspection pre decant report	Pre Decant Inspection 6A 21.9.18.docx **[A36690653 - Bundle 52, Volume 3, Document 26, Page 155]**
25/09/18	IMT HIIAT assessed as RED HPS in attendance. Inspection of 6A prior to move undertaken – assessment documents attached. "Annette Rankin(HPS) has shared further questions from the Scottish Government and MSPs. "	Minutes Ward 2A IMT 25 9 18.doc **[A36629324 - Bundle 1, Document 43, Page 190]** 6A inspection post works & pre clean 28. **[A36690530 - Bundle 52, Volume 3, Document 50, Page 337]** Pre Decant Inspection 6A 21.9.18.docx **[A36690653 - Bundle 52, Volume 3, Document 26, Page 155]**
26/09/18	Reported at Board Infection Control Committee (BICC)	4. Item 2 - Minutes of BICC 26-09-18.doc **[A36690472 - Bundle 13, Document 54, Page 391]**

28/09/18	IMT The full decant of patients from Ward 2A and Ward 2B was undertaken on Wednesday 26th September into Ward 6A and Ward 4B BMT in the QEUH. HIIAT AMBER The group agreed that an AMBER HIIAT score would remain for the duration of Ward 2A/2B decant and will not be re-assessed until the patients have moved back into ward 2A and 2B. (NB because the decant extended the LICD e mailed HPS and reduced to Green on 19 February 19). Epidemiology Report referred to attached. Return to normal triggers. Reported that a ventilation survey would be undertaken at the same time as the drain survey.	 Minutes Ward 2A IMT 28 9 18.doc **[A36629328 - Bundle 1, Document 44, Page 194]**  ExternaltoGGCRe Ward 2A IMT Minutes **[A36690562 - Bundle 52, Volume 3, Document 41, Page 265]**  RHC gram negative descriptive epi.docx **[A42362089 - Bundle 6, Document 27, Page 95]**
04/10/18	Teleconference with SGHD re situation update	 Water Telecon Minutes - 04.10.18 - e **[A36690667 - Bundle 52, Volume 3, Document 30, Page 182]**
05/10/18	IMT Teleconference noted in minute. HIIAT AMBER HPS in attendance Dosing with chlorine dioxide agreed for adult hospital.	 Minutes Ward 2A IMT 05 10 18.doc **[A36629290 - Bundle 1, Document 45, Page 199]**
10/10/18	Teleconference with SGHD re situation update	 Water Telecon Minutes - 10.10.18 - d **[A36690671 - Bundle 52, Volume 3, Document 32, Page 195]**

11/10/18	IMT Reported that the drain survey had been complete Decision to use chlorine for both hospital confirmed with a start date some time in November. HIIAT AMBER HPS in attendance	Minutes Ward 2A IMT 11 10 18.doc **[A36629306 - Bundle 1, Document 46, Page 204]**
16/10/19	NHS Greater Glasgow & Clyde Board Minutes	item-3-nhsggc-m-18 05.pdf **[A36629298 - Bundle 37, Document 52, Page 687]**
18/10/18	Teleconference with SGHD re situation update	Water Telecon Minutes - 18.10.18 - e **[A36690670 - Bundle 52, Volume 3, Document 34, Page 226]**
19/10/18	IMT Scope of work in 2a/b discussed. Chlorine dosing Taps all changed Sinks all changed Plumbing components replaced. HIIAT AMBER HPS in attendance	Minutes Ward 2A IMT 19 10 18.doc **[A36629317 - Bundle 1, Document 47, Page 208]**
26/10/18	IMT Change to treatment and prep room proposed and scoped. HIIAT AMBER HPS in attendance Information for staff re dosing and the issue that there will be no hot water for 24 hours.	Minutes Ward 2A IMT 26 10 18.doc **[A36629329 - Bundle 1, Document 48, Page 212]**
26/10/18	Reported at Acute Infection Control Committee (AICC)	4. Item 2 - AICC Minutes of 26 Octobe **[A36690459 - Bundle 13, Document 18, Page 137]**

October HAIRT	Hospital Associate Infection Reporting Template (HAIRT) paper submitted to Board Clinical Governance Forum, AICC, BICC & NHS Board Meeting. Incident on page 8. Board Clinical Governance Forum noting contents of HAIRT.	5. board-hairt-oct-2018 **[A36690576 - Bundle 52, Volume 3, Document 33, Page 202]** 002 Item 02 - BCGF October Minutes - API **[A36690567 - Bundle 52, Volume 3, Document 27, Page 157]**
30/10/18	Local meeting held to discuss recommendations from national water expert – recommendations regarding the removal of some sinks and some types of sinks.	
02/11/18	IMT Ventilation discussed HPS SBAR re the use of trough sinks. HIIAT AMBER HPS in attendance	Minutes Ward 2A IMT 02 11 18.doc **[A36629288 - Bundle 1, Document 50, Page 223]** SBAR NHSGGC whb ante room (4).pdf **[A36690666 - Bundle 3, Document 13, Page 115]**
9/11/18 & 13/11/18	IMT This date seems to have been moved forward to the 13th November. Extent of possible ventilation works discussed. Decant date extended to February. HIIAT AMBER HPS in attendance	Minutes Ward 2A IMT 13 11 18.doc **[A36629308 - Bundle 1, Document 51, Page 227]**
22/11/18	IMT Options appraisal from a ventilation engineer discussed. SGHD requested a SBAR on ventilation noted that this was done and waiting approval from Chief Executive before being sent on. Agreed two weekly meetings HIIAT AMBER HPS in attendance	Minutes Ward 2A IMT 22 11 18.doc **[A36629319 - Bundle 1, Document 53, Page 237]**

28/11/18	Teleconference SGHD	Water Telecon Minutes - 28.11.18 - e **[A36690794 - Bundle 52, Volume 3, Document 38, Page 243]**
28/11/18	Minutes of Board Infection Control Committee	Item 2 - Minutes of BICC 28-11-18.doc **[A36690620 - Bundle 13, Document 55, Page 398]**
30/11/18	IMT Dosing of site with chlorine dioxide took place on 28/11/18 HIIAT AMBER HPS in attendance Discussion re parents and comms. Final HAIORT for HPS attached	Minutes Ward 2A IMT 30 11 18.doc **[A36629326 - Bundle 1, Document 54, Page 241]** HIIORT Water system incident 18.9.18.docx **[A36690601 - Bundle 52, Volume 3, Document 24, Page 149]**
Cryptococcus Incident Starts		
21/11/18	Patient A (adult patient) had a blood culture (BC) taken on 21/11/18 and this was positive for Cryptococcus neoformans. This patient was unable to receive antifungal prophylaxis due to concerns regarding liver function NB Cryptococcus species, which is harmless to the vast majority of people and rarely causes disease in humans. It is caused by inhaling the fungus *Cryptococcus*. These fungi are primarily found in soil and pigeon droppings	
December 18	December HAIRT Board Clinical Governance Forum minutes where contents of HAIRT was noted.	2018_12_NHSGGC HAIRT final.docx **[A36690592 - Bundle 52, Volume 3,**

		Document 42, Page 268]  002 Item 02 - BCGF December Minutes ap **[A36690554 - Bundle 52, Volume 3, Document 39, Page 247]**
[redacted]/2018	Patient B (paediatric patient) [redacted]	
14/12/18	Patient B (paediatric patient), blood culture taken on [redacted] subsequently identified as Cryptococcus neoformans and multiple [redacted] samples taken on [redacted] were also positive for Cryptococcus neoformans. Reported to ICD on [redacted]. [redacted]	
17/12/18	Lead Infection Control Doctor (LICD) informed of two patients with Cryptococcus neoformans on the QEUH campus.	
18/12/18	Problem Assessment Group (PAG) held. After review of the cases the following actions were undertaken: • Review of drugs given to patients by the aseptic pharmacy. • Review of Paediatric Intensive Care Unit (PICU) to review possible contamination with pigeon excrement on window ledges etc. Findings – excessive volumes of pigeon droppings have been noted outside of PICU in enclosed external atriums. There is no window or door access to the external atrium for staff or patients. Pigeons have been reported to be nesting on the sills of the external atrium throughout the summer months and as a result nets were placed overhead and spikes applied to window sills. The extensive pigeon excrement is no longer visible although some pigeon droppings do remain on the external windows and sills. The same was also visualised on overhead canopies at entrance way to the Royal Hospital for Children. • Review of plant room on the roof of the adult hospital.	 PAG Cryptococcus neoformans - 18.12.1 **[A36690657 - Bundle 2, Document 45, Page 118]**

	• Air sampling of ward areas.	
19/12/18	Review of plant room on the roof of the adult hospital – evidence of pigeon droppings and feathers in the plant room. Action: • Sample air and droppings. Samples of faeces will be sent for further analysis – Ayr vet lab • Estates to decontaminate area – instructions given by PAG group.	
20/12/18	Teleconference with SGHD	 Water Telecon Minutes - 20.12.18 - e **[A36690655 - Bundle 52, Volume 3, Document 44, Page 301]**
20/12/18	Incident Management Team (IMT) convened. Hospital Infection Incident Assessment Tool (HIIAT). Assessed as RED Actions: • All high risk patients to receive prophylaxis. • Place spikes on all areas where birds might nest in both buildings. • Review plant room daily and put measures in place to prevent further access to the areas by birds. Investigate for access points. • Vet Consultant at Health Protection Scotland (HPS) contacted by Consultant Public Health Medicine to establish incidence/epidemiology. • Epidemiology of cases will be reviewed by Consultant Public Health Medicine (CHPM). • Bristol mycology – typing not routinely available but they will attempt sequencing. Advice sought re epidemiology – they have not seen hospital acquired cases before, usually sporadic community cases. • Ongoing surveillance – clinicians and microbiologists will consider as part of differential diagnosis and send serum antigen and blood cultures. Lab contamination had been ruled out Heath Protection Scotland Informed as per chapter 3 of the National Infection Prevention and Control Manual.	 IMT Cryptococcus 20 12 18.doc **[A36605178 - Bundle 1, Document 55, Page 245]**

27/12/19	Board Directors Wednesday Report	IPC 27.12.18 - SAB and CDI.doc **[A36690608 - Bundle 27, Volume 9, Document 23, Page 427]**
27/12/18	IMT– Actions and Update HIIAT assessed as AMBER Update Adult patient responding to treatment*. No new cases. Actions update: • GP Environmental Ltd carried out Pest Control and Housekeeping Inspection of Various Plant rooms (31, 32, 33, 21, 22, 41 and 41A at QEUH, Glasgow). Deep clean completed in response to recommendations within the report. • Additional bird proofing implemented in an area identified within their report "Pigeons had gained access through what appears to be weather damaged cladding and have been using the pipes and high beams as a roosting point. The roosting areas were mainly at the roof access point below the large roof overhang". • Family of paediatric patient unavailable to meet clinical team. To be arranged as soon as possible. • Provisional report from samples of bird faeces is negative, however, there may have been some issues with sampling. • Air sampling results are not available yet. • Plant room D (1, 2, 3) pigeons in situ now removed. • Public health epidemiology confirms a general increase in cases although numbers are very low. 5 cases since June 2018. Update from HPS Consultant Vet still awaited. • Typing by Bristol lab still awaited. • All high risk patients will continue to receive prophylaxis. Additional agreed actions: • Plant rooms will now be inspected every two weeks for evidence of pest, infestations.	IMT Cryptococcus 27 12 18.doc **[A36605180 - Bundle 1, Document 56, Page 250]**

	• Water tanks reviewed and they are covered so unlikely to be a source. • Estates will check window seals for any obvious gaps. • Public health to update HPS Consultant Vet re findings of epidemiology. • Occupational health will consider any issues for staff who would normally work in the plant room in respect of Personal Protective Equipment (PPE). • Confirmed that specialist contractors wear appropriate PPE. • Estates will plan for cleaning of window ledges in PICU. • Continue to review epidemiology. • Estates to look at removing vegetation from level 4 QEUH rooftop and place spikes on patients windows • Review carts taking patient supplies to ward to ensure clean. *adult patient was not on prophylaxis has liver complications with immunosuppression.	
03/01/19	Board Directors Wednesday Report	 IPC 03.01.19.doc **[A36690611 - Bundle 52, Volume 3, Document 48, Page 332]**
7/01/19	IMT meeting - HIIAT assessed as Green. **Update** No new or suspected cases. Adult patient had planned discharge home for palliative care but died before discharge ([redacted]/19). Cryptococcus was not on the patient's death certificate either as a primary or secondary cause of death. IMT held to update clinicians with available air sampling results. Fungal counts identified in plant room 12 including Cryptococcus. Isolate being sent to Bristol to confirm species and compare with patient isolates. Fungal growth on plates from wards 6A and 4C (these are not hepa filtered wards). Plates left to incubate for longer than specified which may account for some overgrowth.	 Cryptococcus minutes IMT 7.1.19 S **[A36690566 - Bundle 1, Document 57, Page 255]**

	Prophylaxis continues in adults without any issues. Paediatric prophylaxis has been challenging – paediatrics do not tolerate long term prophylaxis and there have been 2 episodes of anaphylaxis Additional actions from the meeting; • Repeat air sampling as well as await results still outstanding from initial sampling. • Estates to Clean window ledges visible from PICU • Report awaited from GP environmental detailing options for reducing pigeon infestations in and around the QEUH site • Review of portable HEPA filter options for use in ward 6A • Await feedback from HPS re: national picture relating to Cryptococcus cases amongst humans. Outcome – no evidence/epidemiology available.	
7/1/19	Acute Infection Control Committee Minutes	 5. AICC Minutes of 7 January 2019.doc **[A32181797 - Bundle 13, Document 19, Page 145]**
9/1/19	Board Directors Wednesday Report	 IPC 09.01.19.doc **[A36690607 - Bundle 52, Volume 3, Document 49, Page 335]**
9/1/19	Meeting called by Board Medical Director to address clinicians concerns re air sampling and to review of some issues highlighted in minutes from 7/01/19: Actions • Asked that confirmation that review of antifungal prophylaxis in the paediatric cohort had been completed. • Escalated procurement/placement of portable HEPA filtration units. • Requested repeat air sampling pre and post HEPA unit placement. • ICD and Infection Prevention & Control Nurse (IPCN) to advise ward on the placement of HEPA units.	

	• Escalate repair of two damaged rooms in 6a. • Information would be issued to parents and staff regarding the deployment of HEPA filters. At this meeting estates colleagues confirmed: • Smoke tests carried out in the plant rooms and that there was no leakage into the ventilation system. • The building was triple glazed and no obvious leaks were detected but that they would carry out thermal imaging to detect any drafts.	
10/01/19	HEPA Units installed in ward 6a. All families verbally briefed on situation. All staff given information.	
11/01/19	Meeting with clinical staff to address concerns.	
13/01/19	All staff and inpatients given written brief, alongside verbal communication.	
16/01/19	IMT Update Results from air sampling from 9/1/19 (This was before portable HEPA filters were in place but after the plant rooms had been decontaminated) Cryptococcus has been isolated, however it was a different type from the one isolated from the patients. After discussion with expert from Bristol it was proposed that the most likely source is a breach of the ventilation system and that GGC should consider HPV cleaning of the system. Cryptococcus was not found in samples from PICU. In the absence of post filter insertion sampling ICD was asked if there were any other indicators that could be used to reassure clinical staff that filters were working. Lead ICD agreed to carry out repeat air sampling and particulate counts on the evening of 16th January. Actions • Obtain additional units for the 6A corridor and deploy additional units to complete coverage in corridor of 6A and ward 4C (adult general haematology) inpatient rooms.	 IMT Cryptococcus 16 01 18.doc **[A36690590 - Bundle 1, Document 58, Page 261]**

	Update Post Meeting Particulate sampling results although lower than previously reported remained higher than expected. LICD conducted through examination of the built environment and identified areas of mould/damp in some joins in the shower rooms e.g. skirting board joins. The hypothesis is that this could account for the higher than expected particulate count.	
17/01/19	IMT To discuss results and actions from particulate counts and findings from the review of the environment. Summary: • Portable HEPA filtrations units have been deployed to ward 6a with additional units being delivered into the adult general haematology ward (4C) today. • All high risk patients are receiving antifungal prophylaxis. • Air sampling has confirmed that wards in the 7th floor have Cryptococcus in samples, however, patients in this area are at extremely low risk of developing this type of infection • Very high risk patients in ward 6a were relocated to the adult bone marrow transplant unit as an additional precaution until estates issues are rectified. • Facilities have engaged contractors to check with thermal imaging on the windows within the wards to see if there are any possible leaks. • HAI SCRIBE will be completed 18/1/19 to enable estates colleagues to commence work to rectify issue in showers over the next couple of days. Written and verbal brief given to patients and staff. Update from national expert on ventilation (P Hoffman) Lead Infection Control Doctor has contact Public Health England to ascertain if this problem has occurred in other hospitals and if so what action was taken to resolve it. Advice from a National Expert is that over time the system will through dilution clear itself. As an additional control measure Estates have contacted a specialist contractor to assess the feasibility of decontamination of the system using hydrogen peroxide vapour (recommendation from	 IMT Cryptococcus 17 01 19 Part 1 AM.doc **[A36690588 - Bundle 1, Document 59, Page 266]**  IMT Cryptococcus 17 01 19 Part 2 PM.doc **[A36690599 - Bundle 1, Document 60, Page 270]**

	mycology lab in Bristol). In addition the system will be assessed to establish if there is any other source of contamination.	
18/01/19	HIIAT assessed as AMBER Severity of illness - minor Impact on services- moderate Risk of transmission - moderate Public anxiety - moderate Summary No new cases have been identified. All at risk groups remain on prophylaxis. Air sampling complete as requested at IMT 17/01/19. Hepa filters in all key areas with more being delivered tomorrow for renal transplant areas. HAI SCRIBE complete for works which will progress over weekend. Teleconference with Peter Hoffman and microbiology – results of which will be communicated at next IMT. High risk patients moved to adult BMTU. Other patients on ward risk assessed to ensure highest risk are in rooms with no issues with showers. Proactive press statement released. Comms prepared for patient and parents. Members of IPCT and SMT Women's and Children's continue to make themselves available to address specific concerns of patients, parents and staff. Actions • Pursue report on thermal imaging action re windows. • Review of filtration within ventilation system is ongoing with estates colleagues.	 IMT Cryptococcus 18 01 19.doc **[A36690595 - Bundle 1, Document 61, Page 274]**
21/01/19	IMT HIIAT assessed as AMBER Severity of illness - minor Impact on services- moderate	 IMT Cryptococcus 21 01 19.doc

	Risk of transmission - moderate Public anxiety - moderate Summary No new cases. Water ingress in shower areas was more significant than thought (6A). There was visible mould evident when flooring was lifted and as a consequence all patients were risk assessed and four patients were moved to PPVL rooms in Clinical Decisions Unit in RHC. The rest of the patients (4) were relocated to the beginning of the ward were the showers appeared to be in the best condition. An operational group met today to consider options in terms of relocating patients in RHC. HSE have indicated this morning that they will make visit to the site on Thursday 24th January. **RHC Air sampling** Air sampling done in RHC (PICU, Renal Unit) all negative for Cryptococcus. 6a & 4c 4c results not available as yet. Ward 6A results show a single colony of yeast in one bedroom and some in a corridor but several rooms are negative for Cryptococcus. Full fungal cultures not available yet. Actions • Work is ongoing to repair shower rooms. 8 should be repaired by Wednesday. Directorate review of options to move patients from adult back to children's hospital is ongoing. • Thermal work on windows complete. Some minor issues identified but no major concerns noted. • Communication via other forms of social media will be put in place today to reach the wider population of NHSGGC. • All families who are inpatients or who are due to come in have been spoken to by clinical staff – this has been ongoing. They also received information on Friday18th.	**[A36690569 - Bundle 1, Document 62, Page 278]**

	• Further communication to parents by member of NHS Board to be considered (letter). • Nursing staff in both 6a and 4c have raised concerns and have been spoken to. • Review showers in 4c and rectify any issues noted. • Haematology consultants (paeds) briefed today. • Continue with air sampling on site twice weekly.	
22/01/19	IMT HIIAT assessed as AMBER Severity of illness - minor Impact on services- moderate Risk of transmission - moderate Public anxiety - moderate **Cab Sec visit – statement to parliament.** Update All patients from 6a now in CDU. BMT patients remain in ward 4b No new cases. Plan in place for new admissions. Actions: • Work still ongoing in rooms used by low risk patient, one room with some issues in shower will be used as an OPD room for low risk patients. • On target to complete works on at least 6 rooms by 23/01/19. A further 8 rooms should be complete by next week at the earliest. Air testing will take place once the rooms are all complete, they have had a HPV clean and before HEPA filters are put back in place. Once this is complete the rooms will be tested with the HEPA filters in place. • Some repair work also scheduled for ward 4c. • Letter for patients/parents will be approved by CEO and will be issued to all in-patients and out patients. • Core briefs have been issued to staff to update them on the situation. Going forward social media will be used to also send this message out.	 IMT Cryptococcus 22 01 19.doc **[A36690573 - Bundle 1, Document 63, Page 282]**
24/01/19	IMT HIIAT assessed as RED Severity of illness - minor Impact on services- moderate Risk of transmission - minor Public anxiety - major **No new cases**	 IMT Cryptococcus 24 01 19.doc **[A36690579 - Bundle 1, Document 64, Page 286]**

	Additional Hypothesis In radiology there is a door which smoke testing has confirmed in not sealed when closed. Outside this door is a courtyard and within this area there is a heat exchanger. Bird dropping were evident in this area and the hypothesis is that the heat exchanger may be causing spore dispersion close to an air inlet. **Summary** Haematology/Oncology now located in CDU. Day cases on first floor. Actions • 6A scribes complete. Repairs and HPV cleaning should be complete by Monday 28.01.19. Air sampling will commence after this has been completed – probably Wednesday 30.01.19. Sampling will be done pre and post HEPA filter placement. • Ongoing investigations in plant room. • Courtyard near radiology being reviewed. • Letter to patients/parents developed. Both in patient and outpatients will be issued with same. • Supplies boxes reviewed – procurement confirm no problem in Hillington distribution centre with pigeons. • Roof top garden assessed (QEUH)– no signs of nesting. Will need to be assessed to develop solutions to remove garden material. Pest control in attendance. Guidance will be sought re mid term solutions. • Twice weekly air sampling in level 7 (QEUH) as a control.	
25/01/19	IMT HIIAT assessed as AMBER Severity of illness - minor Impact on services- moderate Risk of transmission - minor Public anxiety - moderate No new cases **Update**	 IMT Cryptococcus 25 01 19.doc **[A36690577 - Bundle 1, Document 65, Page 291]**

	Shower repairs and cleaning of chilled beams (6a) will be complete by Monday, Air sampling will commence on Wednesday. Action • Review of types of filters to be added to ventilation system to prevent ingress of Cryptococcus. • Haematology/oncology paediatrics patients now in CDU. BMT patients in ward 4b adult BMTU. • Vet lab Ayrshire – results, crypto albidus in bird faeces these will now be sent to Bristol. • Air sampling – results not available as yet. • Peter Hoffman has asked for some information re ventilation, the answers are currently being developed. • Review of helipad. Downdraft airflow and patient transport equipment. • 6a will be reviewed by LICD and LIPCN on Monday after repairs are complete.	
28/01/19	IMT HIIAT assessed as RED due to public anxiety Severity of illness - Minor Impact on services- Moderate Risk of transmission - Minor Public anxiety - Major Update • Vet lab Ayrshire – results, crypto albidus in bird faeces these will now be sent to Bristol – post meeting – these samples were discarded. New samples will be obtained. • One patient transferred to Edinburgh (new patient). One [redacted] currently in Beatson Oncology Centre but plans to transfer are ongoing, one other patient receiving treatment in Edinburgh. • 13 patients in CDU. • Letter issued to all inpatient parents – no issues raised. Letters being sent to outpatient cohort.	IMT Cryptococcus 28 01 19.doc **[A36690584 - Bundle 1, Document 66, Page 295]**

	• Adult BMT (4B) three patients remain on ward. • 2a functioning as acute admission – no issues identified in haematology/oncology in this area – only in extremis and four BMT rooms would be used. • Micro – air sampling - Level 7(indicator ward) most recent results all negative therefore may be able to lift some control measures. Lead ICD to review • Work on 6a should be complete today. • Additional HEPA filters purchased. • Hepa filters will be left in wards 6A and 4C long term, pending works to upgrade them. Maintenance programme to be put in place. Hypothesis Update Visit to helipad – obvious birds and faeces. Trolleys will have bird faeces on wheels cannot be transferred onto new trolleys as they are trauma patients. Other centres with helipad being contacted re what they have put in place to address this. Not likely to affect haematology patients as not admitted via this route New Actions • After discussion recommendation is that HEPA filters remain in situ in high risk areas • SLWG to further develop hypotheses , and explore further future preventative methods we can put in place . Communications • Letter issued to all inpatient parents – no issues raised. Letters being sent to outpatient cohort. • Families will be advised that they can contact GGC comms if reporters appear at their home. Formal communication with numbers etc will be developed. • W & C senior management team have briefed clinical directors for each specialty or their equivalent regarding incident. This will be	

	followed up with some formal written communication. • Family of adult family has asked for additional information this will be actioned by clinical team and LICD. Next IMT 30 January 2019	
20/01/19	Inspection post works pre clean by IPCT	6A inspection post works & pre clean 28. **[A36690467 - Bundle 52, Volume 3, Document 51, Page 340]**
30/1/19	**IMT** HIIAT assessed as RED due to public anxiety Severity of illness - Minor Impact on services- Moderate Risk of transmission - Minor Public anxiety - Major Update • New bird faeces samples have been obtained and further samples to be obtained from the helipad and these will now be tested. • Adult BMT (4B) 4 paediatric patients remain on ward. • Micro – air sampling - PICU – initial air samples obtained on 21st December 2018 showed no growth of Cryptococcus however the chair of the IMT has now been informed that that further sample taken on this date have grown cryptococcus albicus. Discussion with expert in Bristol suggests that the counts of Cryptococcus in the air may have now reduced due to natural dispersion. • Work on Ward 6a is now complete and HPV cleaning has been undertaken prior to air sampling and HEPA filters being installed	IMT Cryptococcus 30 01 19.doc **[A36690591 - Bundle 1, Document 67, Page 299]**

	• Additional HEPA filters purchased. • Prophylaxis and heap filters remain in place for all high risk patients. **Hypothesis Update** Due to updated air sampling results from PICU the hypothesis generated at the last IMT has now changed. PICU is served by Plant Room 41 on Level 4 and this area was previously inspected and found to be contaminated with pigeon faeces but no sign of infestation. A separate subgroup will now be convened to review all possible hypotheses. Air sampling of plant room 41 will take place **New Actions** • Jamie Redfern will review all patients who was admitted to the PICU via the helipad in December. • Guidelines for heap filter changes is being developed. • Dr T Inkster has requested a review of all samples related to the incident. • SLWG to further develop hypotheses , and explore further future preventative methods we can put in place. • Facilities to review down drafts created by helicopter landings and any potential dispersal of pigeon faeces. **Communications** • Dr T Inkster will speak to the family of the adult patient who have requested update of all development. • Facebook page to be set up by comms dept with 2 members of Paediatric SMT as administrators to allow parents to raise any concerns and GGC the opportunity to respond. • Letters being sent to outpatient cohort. • Media enquiry from BBC regarding the cause of death of the adult patient and a response has been prepared.	

4/02/19	**IMT** HIIAT assessed as AMBER Severity of illness – minor Impact on services- moderate Risk of transmission - minor Public anxiety - moderate **Update** • SLWG will meet this week for the first time. • One case with a positive Aspergillus PCR but normal CT scan – to be reviewed by lead ICD • Air sampling of ward 6a is still outstanding but the plates are negative so far (final results should be available this week). • Plant room samples associated with PICU not available. • Other samples from RHC not available as yet. • Filters arrived and now in place • Pigeon faeces samples sent to Ayrshire lab. • Maintenance guidance for HEPA filters sent to group. This will be put into place. • TAC mats for trolleys in helipad– samples being sent to facilities colleagues for review. **New Actions** • Filters are being sources that will improve filtration associated with general ventilation. **Communications** • Board supported facebook page is being set up to support parents of this patient group**.** • Letters to parents will be sent to LICD. LICD will forward to HPS/SGHD as requested when received. • NSD will be updated re press releases as requested. • Public Health Protection Unit have developed information for the general public. This will be sent to LICD for comment. • Occupational health update for staff to be sent out.	 IMT Cryptococcus 04 02 19.doc **[A36690558 - Bundle 1, Document 68, Page 303]**

8/02/19	**IMT HIIAT AMBER** Severity of illness - minor Impact on services- moderate Risk of transmission - minor Public anxiety - moderate **Update** • Air sampling ward 6a (QEUH). Results are that most room are free of fungal spores. Minimal positive samples with Penicillium which is not significant. Particulate counts are also much improved. • IMT decision is that we can now move patients back into the ward. BMT patient will continue to be looked after in ward 4B (Adult BMT). • Tac mats ordered for helipad. • Interim report from Ayr lab – yeast but final results are not available. **New Actions** • LN IPCT will check ward and feedback to estates/facilities any final issues before children move back. • HEPA filters will remain on 6A long term. • Prophylaxis guideline will be developed for paediatric haem-oncology with micro and ID consultant and pharmacy. • LICD will initiate fortnightly air sampling in 6a. • Maintenance programme will be put in place for HEPA filters. These are cleaned between patients with actichlor. • Draft water damage policy has been prepared but is still to be ratified. Possibility for named estates colleague allocated to each high risk area is being explored. • Vent cleaning frequency being increased to three monthly.	 IMT Cryptococcus 08 02 19.doc **[A36690561 - Bundle 1, Document 69, Page 307]**

	Communications • Face book page in development, should be available soon. • Occupational advice to go out to staff as soon as possible. • W & C senior management team will develop a briefing with communications to give to parents regarding the move back. LICD, consultants and SMT W & C will be available if anyone has any questions or concerns.	
15/02/19	Last HAIORT (summary of reporting to HPS throughout) assessed as GREEN by ICD e mail attached	 HIIORT QEUH crypto Dec 18.doc **[A36690564 - Bundle 27, Volume 4, Document 20, Page 246]**  ExternaltoGGCRE HIIORT - NHSGGC - W **[A36690548 - Bundle 27, Volume 4, Document 10, Page 222]**
19/02/19	NHS Greater Glasgow & Clyde Board Minutes	 item-3-nhsggc_m_-february-v4-final-jb.pdf **[A36690603 - Bundle 37, Document 53, Page 702]**
February 19	February HAIRT Board Clinical Governance Forum Minutes	 Feb HAIRT.docx **[A36690550 - Bundle 52, Volume 3, Document 59, Page 402]**  002 Item 02 - BCGF February Minutes.pdf

		[A36690456 - Bundle 52, Volume 3 Document 54, Page 359]
5/03/19	Clinical and Care Governance committee	CCG committee March.pdf **[A36690543 - Bundle 38, Document 11, Page 81]**
25/03/19	Board Infection Control Committee Minutes	7. Item 2 - Minutes of BICC 25-03-19.doc **[A36690476 - Bundle 13, Document 56, Page 407]**
16/04/19	NHS Greater Glasgow & Clyde Board Minutes	item-03-nhsggc-m-19_02-april-2019-tbr.p **[A36690610 - Bundle 37, Document 54, Page 718]**
April 19	April HAIRT Board Clinical Governance Forum Minutes	April 19_validated Q4 data FINAL.doc **[A36690551 - Bundle 52, Volume 3, Document 72, Page 491]** 02 Item 02 - BCGF April Minutes - V3.pdf **[A36690454 - Bundle 52, Volume 3, Document 69, Page 470]**
June 19	June HAIRT	June 19_DRAFT final 18 06 19.docx **[A36690615 - Bundle 52, Volume 3,**

		Document 75, Page 545]
June 2019	HPS report – Epidemiology of water borne infections in ward 2AB RHC.	 2019-6-5 ggc 2a 2b report v9 final report.pdf **[A32308315 - Bundle 20, Document 52, Page 1001]**
July	Draft minute of the Expert Advisory Group who were tasked with testing the hypothesis. PLEASE NOTE THIS IS A DRAFT AND SHOULD BE APPROVED BY 26 JULY – FULL REPORT IS STILL AWATED	 06.06.19 - Crypto IMT Expert mins - dra **[A39233761 - Bundle 9, Document 9, Page 45]**

Appendix C

[RHC Water Incident timeline – governance and communication – March –June 2018 (first incident)

February 2018	**South Sector Water Safety Group Meeting** 16.2.18  Minutes 16.02.18.doc **[A36399519 - Bundle 52, Volume 3, Document 56, Page 370]** Item 5: cupriavidus patient incidents noted as reason for water sampling requests for RHC 2A, indicated that within meeting that outlets rather than water system would be source of any contamination.

	South Sector Terms of Referencewater.p **[A36399496 - Bundle 52, Volume 3, Document 82, Page 596]** See Terms of Reference for context of discussions.
March 2018 **Water IMT convened 2.3.18, continues throughout March**	**Board Water Safety Group** 6.3.18 Minute 06.03.18.docx **[A36399507 - Bundle 11, Document 27, Page 83]** Discussion of bloodstream infections believed to be connected to water outlets and actions to be taken. See 2017 timeline for terms of reference for group, for context of discussions. **Acute Services Committee** 20.3.18 https://www.nhsggc.org.uk/media/248857/item-14-asc_m_-18_02.pdf **[A51535513 - Bundle 36, Document 24, Page 211]** Item 17b notes that discussions are being held with HPS and water treatment has been carried out, additional testing to be performed, taps may need to be replaced. **Board Infection Control Committee** 28.3.18 Item 2 - Minutes of BICC 28-03-18.doc **[A38759228 - Bundle 13, Document 50, Page 364]** Item 6: Background on discovery of cupriavidus, water testing regime, actions taken in response, hypotheses, short and long term solutions and how to take these forward. Draft Water Safety Group Terms of Reference with papers. 2018/19 workplan notes requirement to implement legionella and pseudomonas controls with Board Water Safety Group Item 6.5 - RCH Ward 2a incident - Dr Inkst **[A36399506 - Bundle 52, Volume 3, Document 8, Page 46]** Paper on 2A water incident presented at meeting: Detailed coverage of water testing regime, current situation re bacteraemias found in patients and water, hypotheses and proposed actions. **South Sector Facilities Infection Control Group** 28.3.18 Minute 28.03.18.doc **[A36399518 - Bundle 52, Volume 3, Document 9, Page 50]**
April 2018	**Water Review Group (Technical)**

	Convened as IMT subgroup with Infection Control, Estates, HPS and HFS attendance to manage 2A water incident.  Minutes 06.04.18WRGT.docx **[A38668906 - Bundle 10, Document 1, Page 5]** Detailed presentation on taps, discussion and actions on investigation and remediation of water concerns. Group met weekly at this period – selection of minutes inserted within timeline. **Full Board** 17.4.2018 https://www.nhsggc.org.uk/media/248831/item-3-nhsggc_m_-1802.pdf **[A51851759 - Bundle 42, Volume 4, Document 59, Page 1099]** Item 39 'Dr Iain Kennedy, Consultant in Public Health Medicine, was welcomed to the meeting to provide an update on the recent identification of infections which may be linked to the water supply at QEUH and RHC. Dr Kennedy provided the Board with an overview of the circumstances, ongoing work to identify the potential cause and the measures put in place to prevent further contamination, advising that the risk rating had been reduced to amber and that investigation had confirmed that there had been no cross-transmission in identified cases'. **HAIRT** 17.4.18 https://www.nhsggc.org.uk/media/247336/18-17.pdf **[A51850921 - Bundle 52, Volume 3, Document 13, Page 65]** Outbreaks entry outlines water situation with detailed description of actions taken including IMT meetings held and work with HPS and HFS. **Water Review Group (Technical)** 20.4.18 Detailed discussion of investigations and remediation options for system decontamination, and concerns over taps and showers.  Minutes 20.04.18.docx **[A38668913 - Bundle 10, Document 3, Page 14]** **Acute Infection Control Committee** 27.4.18  Item 2 - AICC Minutes of 27 April 20 **[A38759215 - Bundle 13, Document 15, Page 111]** Item 12: update on incident, investigations, actions and hypotheses, noted that no new cases since precautions taken and long term actions being examined by working group. **Water Review Group (Technical)** 27.4.18 Detailed discussion of short and long term actions relating to water incident including water dosing, drain cleaning and tap and sink replacement options, in context of investigations and involvement of HPS and HFS.

	 Minutes 27.04.18.docx **[A38668909 - Bundle 10, Document 4, Page 18]** **Facilities Governance (Infection Control) Forum** 30.4.18  Minutes 30.04.18.docx **[A36399523 - Bundle 52, Volume 3, Document 15, Page 92]**
May 2018	**Water Review Group (Technical)** 18.5.18 Detailed discussion of short and long term actions relating to water incident including water dosing and taps.  Minutes 18.05.18.docx **[A38668902 - Bundle 10, Document 7, Page 29]** **Board Infection Control Committee** 23.5.18 Item 6.7: water incident update noting long terms actions planned and that information has been passed to Informal Directors group.  Item 2 - Minutes of BICC 23-05-18.doc **[A36399500 - Bundle 13, Document 51, Page 371]**
June 2018 **Water IMT held 4.6.18, HPS and Scottish Government in communication, IMT closed 21.6.18**	**Board Clinical Governance Forum** 4.6.18 Item 54: brief update on water incident including immediate actions and note that work is ongoing. Has HAIRT. **Care and Clinical Governance Committee** 12.6.18 https://www.nhsggc.org.uk/media/250045/item-17-ccg_m_18_02-tbr.pdf Item 22 **Review of Water Incident at QEUH and RHC** 'Dr Armstrong introduced Dr T Inkster, Consultant Microbiologist, who presented an update on the Water Contamination incident at QEUH, and RHC which included current and future infection control measures (Paper No. 18/12).' Paper discusses incident, actions and future plans in detail.  CCGC paper water incident.doc **[A50093282 - Bundle 27, Volume 9, Document 7, Page 94]** **South Sector Facilities Infection Control Group** 18.6.18  Minute 18.06.18.doc **[A36399509 - Bundle 52, Volume 3, Document 17, Page 98]**

	Item 4 discusses action re water incident, notes that Estates actions complete for 2A/B. Notes ongoing discussions re tap and sink design and chemical dosing. **Full Board** 26.6.18 https://www.nhsggc.org.uk/media/250034/item-3-nhsggc_m_18_03.pdf **[A51851762 - Bundle 42, Volume 4, Document 61, Page 1283]** Item 63 'Dr Armstrong advised that following the bacteria in the water system incident at Queen Elizabeth University Hospital (QEUH) and the Royal Hospital for Children (RHC), a number of immediate actions had been undertaken to address the issue including domestic cleaning, cleaning of equipment, hand hygiene, the installation of end of tap filters and the installation of new drain spigots. The longer term plan was to chemically dose the water supply and then replace taps in high risk units.' **HAIRT** (presented to Board and BCGF) 26.6.18 https://www.nhsggc.org.uk/media/248856/item-13-18-28.pdf **[A51851775 - Bundle 52, Volume 3, Document 18, Page 101]** Outbreaks entry presents detailed information on incident, actions, formation of water group, hypotheses, involvement of HPS, HFS and international experts including planned review. **Acute Infection Control Committee** 19.6.18  AICC Minutes of 19 June 2018.doc **[A32181721 - Bundle 13, Document 16, Page 120]** Item 3: brief summary of incident and actions, water group and executive water group responsibilities noted, HPS review noted. **Water Review Group (Technical)** 22.6.18 Detailed discussion of short and long term actions relating to water incident including water dosing, drain cleaning and tap and sink replacement options.  Minutes 22.06.18.docx **[A38668896 - Bundle 10, Document 11, Page 44]** **Water Review Group (Technical)** 27.6.18 Detailed discussion of short and long term actions relating to water incident including water dosing, drain cleaning and tap and sink replacement options.  Minutes 27.06.18.docx **[A38668894 - Bundle 10, Document 12, Page 48]** **Acute Strategic Management Group** 28.6.18

	10a - SMG - 28 June 2018.pdf **[A36399497 - Bundle 52, Volume 3, Document 19, Page 125]** Notes water remediation actions being taken. Incident is now closed.
July 2018	**Acute Services Committee** 17.7.18 Item 40: update on water incident noting that action plan in place, water group meeting weekly and monitoring situation, HPS and HFS involvement, planned HPS review. https://www.nhsggc.org.uk/media/250039/item-11-asc-_m_-18_04-tbr.pdf **[A51535447 - Bundle 36, Document 26, Page 223]** **Water Review Group (Technical)** 20.7.18 Detailed discussion of short and long term actions relating to water incident including water dosing, drain cleaning and tap and sink replacement options. Minutes 20.07.18.docx **[A38668888 - Bundle 10, Document 16, Page 65]** **Board Infection Control Committee** 25.7.18 Item 6.7: water incident declared closed. Update on water dosing plans and tap replacement. Item 2 - Minutes of BICC 25-07-18.doc **[A36399504 - Bundle 13, Document 53, Page 384]** **Water Review Group (Technical)** 27.7.18 Minutes 27.07.18.docx **[A38668892 - Bundle 10, Document 17, Page 68]** Detailed discussion of short and long term actions relating to water incident including water dosing, drain cleaning and tap and sink replacement options.
August 2018	**South Sector Facilities Infection Control Group** 6.8.18 Item 4: notes that remedial works relating to water incident completed or Minute 06.08.18.doc ongoing. **[A36399513 - Bundle 52, Volume 3, Document 20, Page 131]** **Full Board** 21.8.18 https://www.nhsggc.org.uk/media/252257/nhsggc_m_-1804.pdf **[A51852815 - Bundle 42, Volume 4, Document 62, Page 1300]** Item 90: 'Dr Armstrong went onto advise the Board of the current position with regards to the cases of blood stream infections associated with Ward 2A Royal Hospital for Children, which initially was proposed as possibly linked to a contaminated water system. There have been no triggers since 11th June and a

	number of actions were undertaken to mitigate the risk including a number of points of use filters installed, drains decontaminated using chlorine dioxide, cleaning with hydrogen peroxide vapour, replacement of aluminium spigots with plastic spigots in wash hand basins, and a longer term plan to pulse the water supply with chlorine dioxide and replace taps.' **HAIRT** 21.8.18 https://www.nhsggc.org.uk/media/250040/item-12-paper-no-18_38.pdf **[A51851763 – Bundle 52, Volume 4, Document 5, Page 22]** Detailed discussion of water situation including actions and HFS/HPS involvement. No new cases since 11.6.18 and situation now assessed as HIIAT Green. **Water Review Meeting (Technical)** 31.8.18  Minutes 31.08.18WRGT.docx **[A36399529 - Bundle 10, Document 22, Page 83]** Detailed discussion of short and long term actions relating to water incident including water dosing, drain cleaning and tap and sink replacement options. **Care and Clinical Governance Committee** 4.9.18 https://www.nhsggc.org.uk/media/250808/item-17-ccg-m-18_03-tbr.pdf **[A51535595 - Bundle 38, Document 8, Page 51]** Item 35 'water update' covers actions taken, surveillance ongoing, report from HPS/HFS awaited, no further cases of infection identified to date, noted that Tom Steele due to take up appointment and will be crucial to long-term plans.

Appendix D

2018 RHC ward 2A/B water incident – second stage timeline (September-October, ward decant)

September 2018 **5.9.18 Water IMT reconvened, HPS and Scottish Government in communication.** **26.9.18 RHC wards 2A and 2B decanted into QEUH wards 6A and 4B (BMTU).**	7.9.18 **Water Review Meeting (Technical)** Continued detailed discussion of water investigation and remediation. 'Further cases of bacteraemia found and drains issues are reporting a match to the patients.' Minutes 07.09.18.docx **[A36407735 - Bundle 10, Document 23, Page 88]** Group has continued to meet –selection of minutes inserted in timeline. 10.9.18 **Acute Clinical Governance Committee** Women's and Children's Directorate update notes '3 bacteraemia found since 5th August', notes investigations and enhanced cleaning and inspection regime. 1 2 - ACG Minutes OCTOBER - approved **[A36407730 - Bundle 52, Volume 3, Document 31, Page 189]** 13.9.18 **Water Review Meeting (Technical)** Minutes 13.09.18.docx **[A38668809 - Bundle 10, Document 47, Page 178]** 13.9.18 **Corporate Management Team** Noted that further water-associated infections found at RHC ward 2A, HPS notified and onsite, Mary Anne Kane in emergency meeting that day after discovery of further evidence of contamination. Noted that chlorine dioxide treatment ongoing on QEUH site.

	FINAL Minutes CMT Meeting 13.09.18 - u **[A36407721 - Bundle 52, Volume 3, Document 23, Page 139]** 18.9.2018 **Acute Services Committee**. Item 40: 'Dr. Armstrong advised the Committee that three further cases had occurred in August and September which could possibly be related to issues with water and drains at the Royal Hospital for Children, and that these cases had come about subsequent to significant work undertaken by the Board in response to earlier cases. She further advised that an Incident Management Team had been instituted as per policy, and that children required to be transferred from current wards to enable investigation of the environment.' https://www.nhsggc.org.uk/media/250804/item-14-asc-m-18_05-tbr.pdf **[A51535516 - Bundle 36, Document 27, Page 231]** 20.9.18 **Water Review Meeting (Technical)** Chlorine dioxide dosing, 2A/B works, investigations and decant. Minutes 20.09.18.docx **A36407748 - Bundle 10, Document 24, Page 92** 26.9.2018 **Board Infection Control Committee** Water incident detailed update including ward decant. Item 2 - Minutes of BICC 26-09-18.doc **[A36690472 - Bundle 13, Document 54, Page 391]**
October 2018 **IMTs and communication with HPS and Scottish Government continue.**	5.10.18 **Water Review Group (Technical)** Detailed discussion of chlorine dioxide dosing, 2A/B works. Minutes 05.10.18.docx **[A36407736 - Bundle 10, Document 26, Page 102]** 12.10.18 Water Review Group (Technical)

	Detailed discussion of ward 2A/B works following decant.  Minutes 12.10.18.docx **[A36407745 - Bundle 10, Document 27, Page 106]** 16.10.2018 **Full Board** Item 118 discussing HAIRT relating to RHC water. 'Dr Armstrong went on to advise the Board of the current position with regards to the cases of infections associated with Ward 2A Royal Hospital for Children (RHC), related to the water system. There had been no trigger incidents since June 2018; however on the 5th September the Incident Management Team (IMT) was reconvened to discuss three additional cases of bacteraemia, likely to be associated with drainage issues in Ward 2A. As of 27th September, six additional cases had been identified.' Mentions ward move, dosing, remediation. https://www.nhsggc.org.uk/media/251900/item-3-nhsggc-m-1805.pdf **[A36629298 - Bundle 37, Document 52, Page 687]** **HAIRT** Detailed discussion of infections, numbers and remediation including decanting. https://www.nhsggc.org.uk/media/250807/item-16-hairt-18_52.pdf **[A36690576 - Bundle 52, Volume 3, Document 33, Page 202]** 19.10.18 **Water Review Group (Technical)** 2A/B works discussed.  Minutes 19.10.18.docx **[A36407749 - Bundle 10, Document 28, Page 110]** 26.10.18 **Acute Infection Control Committee**: Discusses ward 2A/B decant in detail including works planned. QEUH water dosing update given.  Draft AICC Minutes of 26 October 2018.d

	[A36690459 - Bundle 13, Document 18, Page 137]
November 2018 **IMTs and HPS/Scottish Government communications continue.**	9.11.18 **Water Review Group (Technical)**  Minutes 09.11.18.docx **[A36407737 - Bundle 10, Document 30, Page 116]** Water dosing, 2A/B works, HPS report. 12.11.18 **South Sector Facilities Infection Control Group** RHC/QEUH works discussed including negative pressure rooms, chlorine dioxide dosing, 2A/B taps/sinks.  Minute 12.11.18.doc **[A36407738 - Bundle 52, Volume 3, Document 36, Page 231]** 12.11.18 **Acute Clinical Governance Committee** South Sector update notes impact of chlorine dioxide dosing on QEUH. Women's and Children's Directorate update notes ongoing investigations and resulting decant of RHC wards 2A and 2B.  1 2 - ACG Minutes November - Approve **[A36407722 - Bundle 52, Volume 3, Document 37, Page 234]** 16.11.18 **Water Review Group (Technical)** Chlorine dioxide dosing, 2A/B works, HPS report.  Minutes 16.11.18.docx **[A36407746 - Bundle 10, Document 31, Page 121]** 23.11.18 **Water Review Group (Technical)** Chlorine dioxide dosing, 2A/B works  Minutes 23.11.18.docx

	[A38668862 - Bundle 10, Document 32, Page 123]
December 2018	10.12.18 **Water Review Group (Technical)** Chlorine dioxide dosing, 2A/B works, HPS report.  Minutes 10.12.18.docx **[A36407739 - Bundle 10, Document 34, Page 131]** 10.12.18 **Acute Clinical Governance Committee**: Women's and Children's Directorate update notes 2A 'decant arrangements' may be prolonged by need for ventilation works.  1 2 - ACG Minutes December - APPROVE **[A36407723 - Bundle 52, Volume 3, Document 40, Page 258]** 11.12.18 **Clinical and Care Governance Committee** Discussion of water situation. https://www.nhsggc.org.uk/media/252957/item-11-ccg_m_18_04-tbr.pdf **[A51535586 - Bundle 38, Document 9, Page 60]** 18.12.18 **Full Board** https://www.nhsggc.org.uk/media/252972/item-3-nhsggc_m_-1806-tbr.pdf **[A51851755 - Bundle 42, Volume 4, Document 63, Page 1313]** **HAIRT**: Detailed list of remediation of water systems (under Outbreaks). https://www.nhsggc.org.uk/media/251908/item-13-paper-18_63-hairt.pdf
	[A36690592 - Bundle 52, Volume 3, Document 42, Page 268] 20.12.18 **Acute Strategic Management Group** 'Mr Hill noted that Wards 2a and 2b had been relocated to Ward 6a at QEUH due to the ongoing water issue. It was likely that this would remain the case for up to 12 months. Mr Hill noted thanks to colleagues for their ongoing support in relation to this matter.'  Item 12a - SMG_M_18_12.docx

	[A36407728 - Bundle 52, Volume 3, Document 43, Page 293] 20.12.18 **Water Review Group (Technical)** Chlorine dioxide dosing, 2A/B works  Minutes 20.12.18.docx **[A36407750 - Bundle 10, Document 35, Page 134]**
January 2019	31.1.19 **Acute Strategic Management Group**: 'Mr Hill advised that the Haemato-oncology inpatient ward 2A & day care ward 2B had initially moved from RHC to QEUH ward 6A and Bone Marrow Transplant (BMT) to ward 4B. Following concern about shower mould the ward 6A patients had been temporarily relocated to RHC in the Clinical Decisions Unit (CDU). The CDU therefore was consequently decanted to the empty ward 2A.'  Item 12b - SMG_M_19_01.docx **[A36407733 - Bundle 52, Volume 3, Document 52, Page 343]**
February 2019	19.2.2019 **Full Board** **HAIRT**: Noted that RHC water incident is HIIAT AMBER since 28.9.19 with no new cases associated with water since September 2018. HPS, HFS and international experts consulted as to remedial actions and continuous chlorine dioxide water treatment system installed in RHC. https://www.nhsggc.org.uk/media/252956/item-10-paper-19_04-hairt.pdf **[A39913795 - Bundle 52, Volume 3, Document 58, Page 374]**
March 2019	5.3.19 **Care and Clinical Governance Committee** Discussion of HPS water report of December 2018 (*https://www.gov.scot/publications/qe-university-hospital-royal-hospital-children-water-incident/*) . **[A33448003 - Bundle 7, Document 2, Page 32]** https://www.nhsggc.org.uk/media/255419/item-13a-ccg-m-19_01-final.pdf **[A51535580 - Bundle 38, Document 10, Page 71]**

April 2019	16.4.2019 **Full Board** Detailed discussion of HAIRT paper. 'The report provided an update on the water and ventilation system at QEUH and RHC, and Dr Armstrong noted that installation of a continuous (low level) chlorine dioxide water treatment system was now complete and there had been no cases of bacteraemia associated with water since September 2018.' https://www.nhsggc.org.uk/media/254799/item-03-nhsggc-m-19_02-april-2019-tbr.pdf **[A36690610 - Bundle 37, Document 54, Page 718]** **HAIRT** Update on water incident. Incident HIIAT GREEN since February 2019. Notes chlorine dioxide dosing in place for RHC and QEUH, Water Technical Group continuing to meet, point of use water filter still in place, learning points from incidents being shared locally and nationally. https://www.nhsggc.org.uk/media/253878/item-17-paper-19_20-2019_04_nhsggc-hairt.pdf **[A32348957 - Bundle 52, Volume 3, Document 73, Page 517]**

Appendix E

The timeline below details the response to the 2017 October SBAR and the development of the associated Action Plan.

Executive Summary

- In September 2017 Dr Penelope Redding raised concerns with Dr Jennifer Armstrong about infection control in the QEUH/RHC.
- Dr Jennifer Armstrong requested that their concerns be formally documented in an SBAR (Subject, Background, Assessment and Recommendation tool), detailing specific areas of concern so that appropriate actions could be taken. She also agreed to convene a meeting of key staff to discuss concerns and next steps. (*See Item 1 below*.)
- In response, Doctors Christine Peters, Penelope Redding and [redacted] (and not Dr Teresa Inkster) (the "Consultant Microbiologists") drafted an SBAR re Infection Control and Patient Safety at QEUH/RHC dated 3 October 2017 (the "October 2017 SBAR"). (*See Item 2 below*.)
- A meeting was convened as a matter of urgency on 4 October 2017 with the Consultant Microbiologists, Senior Directors and Senior Clinicians of GGC. (S*ee Item 3 below*.)
- Many of the various issues raised within the October 2017 SBAR and discussed at this meeting had already been identified and were in progress prior to the submission of this SBAR. (*See minutes of meetings below*. *Further information is available on request*.)
- A 27 Point Action Plan (the "Action Plan") was developed to address each of the separate issues raised.
- Regular meetings of the following committees were convened to discuss and progress the Action Plan:
    - Board Infection Control Committee (BICC);
    - Clinical and Care Governance Committee (CCGC);
    - Acute Infection Control Committee (AICC);
    - Board Clinical Governance Forum; and
    - Partnership Infection Control Support Group.
- The concerns raised in the October 2017 SBAR were thoroughly investigated and actions taken in respect of each separate issue.
- The October 2017 SBAR and Action Plan were signed off as being complete on 1 September 2021. (See email at Item 17 below.)

2017 Infection Control SBAR Governance Timeline

Item	Date	Document(s)	Notes
1.	28.9.17	FW Invitation to meeting from Pamela **[A38759263 - Bundle 14, Volume 1, Document 73, Page 722]**	Email from Dr Armstrong to Dr Redding suggesting a meeting on 3rd of October and asking Dr Redding for an SBAR in advance of the meeting setting out the areas of concern
2.	3.10.17	FW Infection Control Meeting - 4 **[A38759259 - Bundle 52, Volume 3, Document 1 and 1.1, Pages 8-9]** **[A38694873 - Bundle 4, Document 20, Page 104]** 3rd October email from PR to JArnsg **[A38759263 - Bundle 14, Volume 1, Document 73, Page 722]** SBAR RE Infection Control and Patient S **[A38694873 - Bundle 4, Document 20, Page 104]**	Email invitation sent to stakeholders to attend meeting to discuss SBAR Email sent by Dr Redding to Dr Armstrong SBAR received by Dr Armstrong - SBAR was compiled by Drs Redding, Peters and [redacted] (Consultant Microbiologists) (and not by Teresa Inkster) regarding concerns over infection control issues at QEUH and RHC. SBAR is summarising emails sent by Drs Redding and Peters to Dr Armstrong and has been referred to as a 'whistleblowing' SBAR. Themes within it: • Positive Pressured Ventilated Lobbied (PPVL) Isolation Rooms. • Royal Hospital for Children (RHC) – Protective Isolation – Haematology Oncology Unit. • RHC – HEPA filters in Paediatric Intensive Care Unit (PICU). • Queen Elizabeth University Hospital (QEUH) – Ward 4B – Upgrade to the Haematology Ward. • Single Room Specification and Location of Areas that can be used for Protective Isolation. • Cleaning of QEUH, RHC and Office Block • Cleaning of Dishwashers in QEUH and RHC linked to a potential outbreak of exophiala • Water Quality and Water Testing • Plumbing in the Neurosurgical Block • Decontamination of Respiratory Equipment • Structure of the Infection Prevention and Control Team

3.	4.10.17	Infection Control Issues 041017.pdf **[A38759279 - Bundle 27, Volume 6, Document 2, Page 22]**	Meeting chaired by Dr Jennifer Armstrong - content of SBAR above discussed in detail with input from Infection Control and Estates Directors, Senior Managers and Clinicians. Included with papers for the Board Infection Control Committee (BICC) held on 27/11/2017. This Committee was chaired by the Medical Director, and provides leadership and support to the IPC services.
4.	27.11.17	BICC Agenda 27.11.17.docx **[A38759266 - Bundle 52, Volume 3, Document 5, Page 42]** Item 2 - Ward 2A Update for BICC Nove **[A49401474 - Bundle 27, Volume 8, Document 14.1 Page 74]** Minutes of BICC 27-11-17.doc **[A32221779 - Bundle 13, Document 48, Page 349]**	Board Infection Control Committee Meeting on 27/11/ 2017 Paper (Item 2 on the agenda) presented by David Loudon and Jen Rodgers providing an update on Ward 2A
5.	5.12.17	08 - Infection control1724.pdf **[A38759270 - Bundle 20, Document 48, Page 792]** 00 - Clinical Care Committee Agenda.d **[A38759250 - Bundle 52, Volume 3, Document 3, Page 18]** 03 - CCG(M) 1704 APPROVED.pdf **[A51535581 - Bundle 38, Document 5, Page 30]** 03 - NHSGGC(M) 1801.pdf	Clinical and Care Governance Committee (CCGC) held on 5th December 2017. Paper 17/24 refers to the Infection Control meeting (held on 04/10/2017) and associated Action Plan addressing each issue raised; presented and discussed at agenda item 8 at CCGC meeting; and actions taken approved by meeting. CCGC held 5 December 2017 notes *"Committee were advised that there has been a series of issues raised by a small number of microbiologists"* [CCGC minute noted at Board meeting 20/02/18]

		[A38759238 - Bundle 42, Volume 4, Document 58, Page 1088]	
6.	31.1.18	 Item 13 - Minutes of BICC 31-01-18.pdf **[A38759245 - Bundle 13, Document 49, Page 356]**  BICC Agenda 31.01.18.pdf **[A38759237- Bundle 52, Volume 3, Document 6, Page 43]**	Board Infection Control Committee item 7.3 – BICC received and discussed paper 17/24 as above.
7.	13.3.18	 FW Email from TI to CP and AD on progre **[A38759280 - Bundle 52, Volume 3, Document 12, Page 64]**  AICC paper.rtf **[A36591655 - Bundle 27, Volume 4, Document 5, Page 61]**  Email 13th March 2018.doc **[A38759221 - Bundle 52, Volume 3, Document 7, Page 44]**	Email from Dr Inkster to Drs Peters, Redding and [redacted] regarding SBAR – attaches paper dated 05.03.18 with Action Plan noting that seen by BICC and CCGC and due to be reviewed by AICC (Action Plan substantially same as that discussed in meetings above, slight emphasis change re item 1). Response from Dr Peters to Dr Inkster to the above email.
8.	28.3.18	 Item 13 - Minutes of BICC 28-03-18.pdf **[A38759228 - Bundle 13, Document 50, Page 364]**  BICC Agenda 28.03.18 - amend **[A38759224 - Bundle 52, Volume 3, Document 10, Page 53]**	Board Infection Control Committee – Update to Action Plan: Dr Inkster indicated that a paper concerning air changes as per item 17 on the Action Plan has been sent to microbiologists and Acute Infection Control Committee.

9.	27.4.18	Item 2 - AICC Minutes of 27 April 20 **[A38759215 - Bundle 13, Document 15, Page 111]** AICC Agenda - 27 April 2018.pdf **[A38759213 - Bundle 52, Volume 3, Document 14, Page 89]**	Acute Infection Control Committee meeting item 19 – paper 17/24 discussed.
10.	5.3.19	Item 00 - CCGC Agenda 05.03.19 fina **[A38759212 - Bundle 52, Volume 3, Document 74, Page 543]** Item 9a - Paper 19_05 - QEUH RHC re **[A38759147 - Bundle 38, Document 12, Page 89]** Item 9b - Appendix 1 SBAR Action Plan 15t **[A49401499 - Bundle 27, Volume 8, Document 48.1, Page 172]** Item 03 - DRAF CCG(M)19_02.p **[A36591693 Bundle 27, Volume 4, Document 10, Page 106]**	Updated Action Plan from 2017 SBAR with position as at January 2019 presented and discussed at item 9 at CCGC meeting; in compliance with item 12 of issues raised from HEI inspection. Actions taken approved by meeting. [CCGC minutes noted and discussed at full Board meeting 16/04/19] CCGC Minute of 11/06/2019 approves Dr Inkster's requested revisions to the 05/03/2019 minute.
11.	12.3.19		AICC meeting item 19 – cover report and updated Action Plan shared as above.

		 AICC Minutes 12 03 19.pdf **[A38759166 - Bundle 13, Document 20, Page 152]**  AICC Agenda - 12 March 2019.pd **[A38759183 Bundle 52, Volume 3, Document 77, Page 579]**	
12.	14.3.19	 Item 6.4 - PICSG Minutes 140319.pdf **[A38759192 - Bundle 52, Volume 3, Document 61, Page 429]**  Item 19D - Appen 1 SBAR Action Pla **[A49401499 - Bundle 27, Volume 8, Document 48.1, Page 172]**  Item 19D - Pape 19_05 - QEUH RH **[A38759147 - Bundle 38, Document 12, Page 89]**	Partnership Infection Control Support Group meeting – cover report and updated Action Plan as above shared (item 11.2). *NB CCGC meeting mentioned at item 11.2 was convened in March not February as noted.*
13.	25.3.19	 Item 2 - Minutes of BICC 25-03-19.pdf **[A36690476 - Bundle 13, Document 56, Page 407]**  BICC Agenda 25.03.19.pdf **[A38759157- Bundle 52, Volume 3, Document 62, Page 435]**	BICC item 18 notes cover report and updated Action Plan as above. *NB CCGC meeting mentioned at item 18 was convened in March not February as noted.*

		 Item 4 - Paper 19_ - QEUH RHC repo **[A38759147 - Bundle 38, Document 12, Page 89]**	
14.	8.4.19	 Item 15b - BCGF April Minutes.pdf **[A38759154 - Bundle 52, Volume 3, Document 76, Page 570]**  Agenda and Pape BCGF - April 2019 **A38759217** • **Pages 1-2 [A53721950 – Bundle 52, Volume 3, Document 67, Page 466]** • **Pages 3-12 [A53721954 - Bundle 52, Volume 3, Document 53, Page 349]** • **Page 13 [A53721955 - Bundle 52, Volume 3, Document 83, Page 597]** • **Page 14 [A53721995 - Bundle 52, Volume 3, Document 55, Page 369]** • **Page 15 [A53721981 - Bundle 52, Volume 3, Document 35, Page 230]** • **Pages 16-17 [A53721979 -**	Updated Action Plan and cover report as above presented at Board Clinical Governance Forum item 4(e).

		Bundle 52, Volume 3, Document 57, Page 373] • **Pages 18-21 [A53721951 - Bundle 52, Volume 3, Document 84, Page 598]** • **Page 22 [A53721977 - Bundle 52, Volume 3, Document 60, Page 428]** • **Pages 23-24 [A38759147 - Bundle 38, Document 12, Page 89]** • **Pages 25-37 [A49401499 - Bundle 27, Volume 8, Document 48.1, Page 172]** • **Pages 38-60 [A53721953 - Bundle 52, Volume 3, Document 63, Page 437]** • **Pages 61-73 [A53721952 - Bundle 52, Volume 3, Document 45, Page 304]** • **Pages 74-86 [A53721994 - Bundle 52, Volume 3, Document 46, Page 317]** • **Pages 87-88 [A53721996 - Bundle 52, Volume 3,**	

		Document 64, Page 460] • **Pages 89-90 [A53721980 - Bundle 52, Volume 3, Document 68, Page 468]** • **Pages 91-92 [A53721978 - Bundle 52, Volume 3, Document 65, Page 462]** • **Pages 93-94 [A53721982 - Bundle 52, Volume 3, Document 66, Page 464]**	
15.	15.4.19	 1 2 ACG Minutes 15 04 19 (2).docx **[A38759151 - Bundle 52, Volume 3, Document 71, Page 482]**  00 April Agenda.docx **[A38759136 - Bundle 52, Volume 3, Document 70, Page 481]**  4e Appendix 1 SBAR Action Plan 15th Fe **[A38759147 - Bundle 38, Document 12, Page 89]**	Updated Action Plan presented and discussed at Acute Clinical Governance Committee (item 4).
16.	March 2021	 NHS GGC and QEUH Oversight Boa **[A33448010 - Bundle 6, Document 36, Page 795]**	Oversight Board Report published in March 2021 with paragraph 127 stating *"The Oversight Board has been informed that work has been substantially completed on the action plan, but the most recent version of the action plan seems to be dated to January 2019 (with several actions shown*

			as still in progress); a further update (and closure) of the action plan should be put forward and reviewed by the Clinical and Care Governance Committee".
17.	08.06.21	Item 00 - Agenda CCGC Jun 2021.pdf **[A38759131 - Bundle 52, Volume 3, Document 80, Page 587]** item-15c_paper-21-36_cccg-chairs-repo **[A38759134 - Bundle 52, Volume 3, Document 79, Page 584]** Item 9b_SBAR Action Plan.docx **[A38759230 - Bundle 4, Document 51, Page 220]** Re Action from Clinical and Care Gow **[A49401499 - Bundle 27, Volume 8, Document 48, Page 167]** Item 03 - CCGC (M) 21-01-V2 APPROVED. **[A51535606 - Bundle 38, Document 21, Page 159]**	Updated Action Plan presented and discussed at Clinical and Care Governance Committee on 8th June 2021 (Paper 21/06)-. Committee asked to note that 26/27 actions now completed and one action technically impossible. Chairs Board report of meeting dated 29 June 2021 attached. Under Section 3.5, Committee approved the closure of the Action Plan subject to some further narrative on three actions. Email sent to Chair and Vice Chair of CCG with update of requested action on points 3, 17 and 24 from secretariat and from Director of Clinical and Care Governance. SBAR signed off as being complete on 01/09/2021

Scottish Hospitals Inquiry
Witness Statement of
Gary Jenkins

This statement was produced by the process of sending the witness a questionnaire with an introduction followed by a series of questions and spaces for answers. The introduction, questions and answers are produced within the statement.

Personal Details and Professional Background

1. Name, qualifications, chronological professional history, specialism etc – please provide an up-to-date CV to assist with answering this question. Please include professional background and role within NHS GGC, including dates occupied, responsibilities and persons worked with/ reporting lines.

A. My name is Gary Jenkins. I am currently the Chief Executive Officer for The State Hospital Board for Scotland, at Carstairs. I have held this position since April 2019. In 2022/23 I completed a one-year programme with the School of Forensic Mental Health 'New to Forensic Mental Health'.

Prior to this appointment, I was the Director of Regional Services at Greater Glasgow and Clyde within the Acute Services Division. I held that position from 2015 to 2019. Prior to that, I was the General Manager for Specialist Oncology Services, based at the Beatson West of Scotland Cancer Centre in Glasgow. I held that role from 2009 to 2015. Before taking up that position, I was the Associate General Manager for Diagnostic Imaging and Clinical Physics, based at Glasgow Royal Infirmary. I held that role from 2006- 2009. Prior to this, I was a Clinical Service Manager within the Medical Directorate of the former South Glasgow University Hospitals NHS Trust. I joined the trust around 2001 and worked as the Clinical Service Manager for the Diagnostics Directorate.

Pre 2000, I held various roles in North Glasgow University Hospitals Trust. I hold an HNC in General Management Science, from the Glasgow College of Commerce.

Governance Reporting Structures within NHS GGC

2. During your time at NHS GGC please explain how the governance structure and reporting lines to the NHS GGC Board and its first line of subordinate committees received information and made and authorised decisions in respect of

(a) The procurement of the new Southern General Hospital (that became the QEUH/RHC),

A. I worked within the Acute Division of NHS Greater Glasgow and Clyde (NHS GGC) I attended the Strategic Management Team (SMT) and Operational Management Team (OMT) which dealt with issues arising from the Acute Division.

I had a Regional Services Directorate Management Group and a Directorate Clinical Governance Group. The Directorate Management Group would report and escalate issues to either the SMT or OMT. The Regional Directorate Clinical Governance Group would escalate issues to the Acute Division Clinical Governance Group.

Matters arising from these groups that required further escalation would be agreed by the Chief Operating Officer for the Acute Division, who in turn would escalate to the Corporate Management Team, Acute Service Committee or relevant Corporate Director.

I am unaware of the process, from that time, in terms of reporting to the Board or the associated sub committees on the new procurement of the new Hospital. I was an Acute Director, not a Corporate Director or member of the Board or any of the Board Standing Committee Structures during my time at NHS GGC. If I had any issues that required escalation, I would discuss these

in person with my Director (at the time) and latterly, when I was an Acute Director, with the Chief Operating Officer for the Acute Division.

At the time of the construction of the new hospital, and prior to 2015, I would have been a General Manager, and not a Director. Therefore, I was not involved in the structures of the Board or the sub committees.

(b) The safe and efficient operation of the water and ventilation systems of the QEUH/RHC,

A. **I** am aware from memory (and my reading through the bundles provided) that there was a Board Water Safety Group. From the Acute Division perspective I believe that John Stuart (Head of Nursing, North Sector) attended this on behalf of Acute Directors.

I was not involved directly with any groups or committees that had oversight, responsibility or monitoring of either the water or ventilation system for the new Queen Elizabeth University Hospital, or the Royal Hospital for Children.

(c) The management and reduction of risks to patient safety from infections that had the potential to be connected to the environment (particularly the water and ventilation systems) of the QEUH/RHC,

A. The group I recall, from memory, where this responsibility might rest, is the Acute Infection Control Group, and the Board Infection Control Committee. The Acute Infection Control Committee would receive reports from the local clinical governance structures in place across the Acute Directorates.

I believe that escalation to the Board Infection Control Committee would be from the Acute Infection Control Group, and Acute Clinical Governance Group, depending on the Chairs advice.

(d) The need for and authorisation of works to improve or remedy deficiencies in the water and ventilation systems of the QEUH/RHC
and (e) the processes put in place to ensure that disclosure by staff of evidence of wrongdoing, failures in performance or inadequacies of systems

was encouraged and reacted to by the Board to ensure that the safety of patients and the best value use of public funds were protected.

You should be aware that Hearing Bundle 13 contains minutes of the Board Infection Control Committee and the Acute Infection Control Committee, and that Hearing Bundle 11 contains minutes of the Board Water Safety Group.

A. I suspect that the correct mechanism was through the Directorate reporting structures as described in my response at question 2, in the first instance.

I was not aware of any deficiencies or remedy required in the areas of water or ventilation until after the opening of the new hospital facility.
In relation to evidence or wrongdoing or failures, staff were able to raise concerns with their line manager, or a more senior manager if they flet the need to do so. I believe at that time, if a member of staff felt this was insufficient, they were entitled to use the whistleblowing mechanisms available to all staff within the organisation. I cannot recall though from memory when the whistleblowing process and roles were introduced to NHS GGC.

3. Please explain what informal and formal meetings or groups met outside the structures you have described in the previous question that made decisions about the issues listed in Question 2.

A. I do not think to my knowledge that there were any other groups that met to discuss the issues cited at question 2, over and above local Directorate reporting structures. There was a project team in place who were dedicated to the new hospital build who had central oversight of the build and project. This was a central process for all issues associated with the new build. There may have been a group titled ‘on the move’ which I think may have dealt with the overall move to the new hospital build.

4. How is it decided which issues, decisions and reports would be escalated to the full Board or one of the first line of subordinate committees?

A. As I have stated, I was not a member of the Board or any of the sub committees of the Board.

As with my response to question 2, ordinarily for Acute Directors, you could speak to the Chief Operating Office for advice and support if you felt there was an issue that required escalation to one of the more senior decision-making groups such as the Acute Service Committee, or for discussion and advice from the Corporate Management Team.
The Chief Operating Officer was a member of the Corporate Management Team, chaired by the Chief Executive. I believe that issues discussed at this meeting could be suggested for inclusion at the Board and its Sub Committees depending on the subject and its relevance for escalation.

For major decisions, such as service change, you may be invited to update either the Board or the Acute Service Committee. Invitations such as this would come through the Chief Operating Officer. An example of being invited to the Board was when I put a proposal forward to close the inpatient beds at the Centre for Integrative Care (formerly know as the Homeopathic Hospital) and move to a day treatment model with no overnight provision. This required Board approval and scrutiny prior to agreement and the then subsequent removal of the inpatient beds. Similarly, I recall being invited to the Acute Service Committee to present on an improvement plan I was working on that required investment to drive down the waits for Urological cancer treatment.

5. What procedures were put in to ensure all significant questions about the issues listed in Question 2 were being taken to the Board or one of first line of subordinate committees, discussed and actioned?

A. I cannot comment any further than the response provided at question 2, other than to say that any issues I had that may require escalation would be put to the Chief Operating Officer, Acute Medical Director or Director of Estates and Facilities. All of whom were members or in attendance at the Board I believe from memory.

6. What procedures were put in place by the Board to ensure monitoring, progress and resolution of issues related to the list in Question 2 that had been reported to the Board or one of first line of subordinate committees?

A. I refer to my answer at point 5.

7. Please refer to Dr Redding's witness statement at paragraph 186 **(Witness Bundle - Week commencing 2 September 2024 - Volume 3, Document 2, Page 63).** Dr Redding says that "The SMT and Clinical Governance Committees take decisions on what information is discussed at meeting of the full board." Is this statement correct? What is your understanding of how this process works?

A. I have previously commented on this. However, I feel that the SMT that Dr Redding refers to is different form the SMT (Strategic Management Team) meeting that I would have attended as an Acute Director. Dr Redding would have reported through the Diagnostics Directorate structure and has her own Director and Chief of Medicine. This structure may have differed slightly from the Regional Services Directorate.

I believe that the Board Clinical Governance Committee, or the Board Infection Committee, would have been able to escalate matters on to the GGC Board itself.

a) Explain the oversight the Board had over issues escalated from the standing committees until they were resolved.

A. I cannot comment on that as I was not a Board member or member of any of the sub committees within NHS GGC. I was an Acute Director and reported to the Chief Operating Officer for the Acute Division.

b) Explain the types of decisions that were made at standing committee level and what decisions were made by the Board. What were the delegations to the Standing Committees?

A. I cannot comment on that as I was not a Board member or member of any of the sub committees within NHS GGC. I was an Acute Director and reported to the Chief Operating Officer for the Acute Division.

8. Please refer to **Bundle 29, Document 13, Page 485 and Bundle 29, Document 14, 523).** What led to the changes in the Board's governance structure in 2016/17, specifically the establishment of new committees and the subsequent requirement for the Chairs of the standing committees to update on discussions and decisions made at their respective committees (see

Bundle 29, Document 14, Page 523)? Was the Board satisfied that the implementation of these changes enhanced and strengthened governance at GGC?

A. This is not something that I can accurately comment on as I was not involved or aware of any of the points referenced at question 8. I would guess that the Audit Committee would have taken an action to discuss the recommendations from Audit Scotland and put in place a series of actions to address the points you cite.

Director of Regional Services

9. The Inquiry understands you were Director of Regional Services within NHS GGC between 2014 and 2019.

(a) What were the circumstances of your appointment to this role?

A. I was the General Manager for Specialist Oncology Services and Clinical Haematology between 2009 and 2015. I was part of the Regional Services Directorate along with two other General Managers.

I was acting Director from 2014. I applied for the actual Director role in 2015 (I believe) and was appointed following an open recruitment process.

(b) What did this role involve?

A. The role was that of an Acute Director working alongside five other operational Directors covering the Acute Division. The Regional Services Director role involved the operational oversight and direction of five Clinical Specialties (this was initially three) that were provided from within the Acute Division of NHS GGC, to the West of Scotland or all of Scotland. Those services were:

- Specialist Oncology & Clinical Haematology
- The Institute of Neurosciences
- Renal Medicine, Plastic Surgery and Burns
- Forensic Mental Health Services
- Glasgow Dental Hospital & School

The role involved coordination and direction of service delivery and performance, sometimes across multiple NHS Board areas. Development of services to meet the needs of the population served, clinical, financial and staff governance of the teams that worked within the Directorate itself. Linkage with the objective of the Acute Division and delivery of wider government performance standards for access to healthcare.

(c) Who reported to you in this role?

A. The five General Managers of the service stated at point 9b above reported to me in my role as Director. In addition, I was the direct managerial reporting line from the Chief of Medicine, the Chief Nurse, Chief AHP (Allied Health Professional), Head of Finance, Head of People and Change.

(d) Who did you report to?

A. I reported to the Chief Operating Officer for the Acute Division alongside the other Acute Directors.

The New South Glasgow University Hospital (SGUH) Project

10. Please describe your input, if any, in relation to the design and specification of the QEUH? What were the circumstances under which you became involved and at who's behest?

A. I was not involved in the design and specification of the QEUH until the addition of the Bone Marrow Transplant Unit was added in July 2013. Renal, was the only other service that was within my Directorate, however it was always planned that renal services would be located in the new build so the process for that was well established in advance of me taking up with role of Director.

11. Please describe your input, if any, in relation to the commissioning and validation of the QEUH? What were the circumstances under which you became involved and at who's behest?

A. I was not involved in the commissioning stages, other than what I have described at point 13 in this statement.

My only involvement in the issue of validation was prior to the completion of the ward we were due to occupy. This was when colleagues and I visited the ward itself. At this meeting in the actual ward, myself and the clinical team in attendance, questioned the validation process for the hospital. We were informed that all of this was being managed centrally as part of the Project Team arrangements and building handover process.

12. Please describe your input, if any, in relation to the handover of the QEUH? What were the circumstances under which you became involved and at who's behest?

A. I had no handover of the QUEH, other that that which I have described in this statement. I was not involved in any corporate handover of the building.

I recall that as Acute Directors we involved in the actual physical transfer of patient services timeline. I believe this was coordinated through Anne Harkness, who was the Director of the South, and coordinated the service moves timetable in collaboration with the Scottish Ambulance Service and patient transport services.

a) With reference to your answer to question 11 in your statement:

(i) Was there a reason that you asked about validation when you visited the hospital? Was it linked to what you observed regarding ventilation?

A. The reason I asked about validation was due to the lack of visible pressure monitors outside the patient bedrooms. In the Beatson West of Scotland Cancer Centre, each patient room has a pressure monitor on display at the entrance to the rooms.

This was the reason I asked the question. This conversation relates to the discussion about pressure monitors and their visual absence. I was informed that the process was being managed centrally and not by individual services.

(ii) Do you have an understanding of the difference between commissioning' a ventilation system and 'Validation' of a ventilation system and can you assist the Inquiry in understanding why the ventilation system of the RHC including specialist ventilation areas such as isolation rooms and haemato-oncology wards were not validated before patient occupation?

A. I have a broad understanding of the two terms; however, I do not have any specific technical expertise in this area. I would be reliant of the Estates and Facilities team manager for that type of granularity.
If I had 'interchanged' these terms in my earlier statement, that is not deliberate.

As I stated in my previous statement, I was not involved in the RHC process at all as I did not have any services transferring into RHC. That was part of the Women and Children's Directorate team.

Beatson/BMT Service

13. The Inquiry is aware the adult BMT service was to transfer from the Beatson to the QEUH as noted in the meeting minutes from the Quality and Performance Committee dated 2 July 2013 (**Please refer to Bundle 34, Document 62, Page 542**). This was confirmed in a change order request, issued by Jonathan Best in July 2013 (**Please refer to Bundle 16, Document 29, Page 1699)**. Please provide details in respect of the following:

a) What risk assessments/ HAI Scribes were carried out prior to the change order request?

A. From memory, I am unable to recall of any specific risk assessment or HAI Scribes processes that were specifically carried out at this point in the process. That is not to say they did not take place, rather I have no records to accurately cross reference.

I recall being made aware of this decision, I think through Jonathan Best (Chief Operating Officer), that there had been a discussion or meeting between the Medical Director, and I believe (from memory) with the BMT

Consultants. I recall being informed that BMT was now going to be transferred the new QEUH as it had greater clinical synergies with being collocated on an acute site, with access to ITU and HDU. I believe the BMT Consultants were supportive of this proposal and indeed had a desire to more the service as they were concerned about a lack of clinical infrastructure on the Gartnavel campus.

I am aware that there were wider concerns being raised by the Beatson Oncologists in relation to the infrastructure support that was being left behind on the Gartnavel General Hospital campus. I cannot accurately state if the BMT decision was resultant from those discussions, or if this happened prior to concerns being raised about HDU support for cancer patients being treated at the Beaston West of Scotland Cancer Centre.

However, I was informed that the service was transferring, it was not a proposal that I wrote up or developed for consideration. It stemmed from the discussion between the Medical Director and Consultants as I recall.

b) What were the technical and environmental requirements (in particular air change rates, pressure regimes and HEPA and air permeability requirements) to accommodate the BMT Unit at QEUH/RHC?

A. I do not have access to any documents from that point in time as I left NHS GGC in 2019. However, I have tried at point ‘c’ to describe what information we provided to the Project Team.

c) Your attendance and involvement in any design review meetings which were held to confirm with the user groups the requirements for the BMT Unit.

A. I recall that the Project Team, who were situated at Hillington, either contacted us, or we made contact with them in relation to the BMT specification.

I think all, or certainly the majority of meetings, took place at the Project Offices in Hillington. At these meetings, I recall that we were presented with large scale drawings of the ward layout, which was pretty much ‘fixed’ by that point in the planning process.

I recall that these meeting being attended by the whole team, i.e. the Clinical Service Manager (Myra Campbell), the Lead Consultant (Dr Anne Parker), the Lead Nurse (Laura Meehan) I also think that the Dr Grant McQuaker was present at these meeting too. From the Project Team side, I recall Heather Griffin, Mhairi (someone) and Fiona McLuskie (I think) who was the Project Infection Control Nurse Lead.

We were asked about the specific requirements of the BMT service.

I recall that we outlined that the specification of the Beatson wards (B8 and B9) were the specifications that were required for unit at QEUH. We were specific about the pentamidine room, air exchanges, positive and negative pressure monitoring and the very strict criteria required for patients undergoing this form of treatment. I recall that we discussed the specific challenges and delays that were faced when BMT service initially transferred from Glasgow Royal Infirmary to the Beatson. We explained that there had been a delay to that move at the time due to issues with the building. We highlighted that we did not believe that there was a standard building note for a BMT service, therefore it was of key importance that the information developed by the microbiologists was used as the baseline for the unit itself. We highlighted that contact should be made with Dr John Hood or Dr Brian Jones (Microbiologists at GRI) as he or they had worked on the resolution of issues with that service transfer from GRI to the Beatson. We suggested that he / they would be a good point of contact to ensure that all of the specifications for the Beatson were mirrored at the QEUH unit.

We then went on to discuss the ward layout and had to sign some drawing and mark up our comments on the specification. These drawings as I recall were held by the team at Hillington.

There was an acknowledgement about the very specific needs of BMT patients, how these differed to a haemato-oncology service, and we all had confidence that the description and overview we provided was sufficient for the project team to take forward on our behalf.

d) Discussion with Multiplex regarding the proposed change order and the impact on Air Change Rates and Pressure Differentials?

A. I do not recall any time that we, as the service team, or I as the Service Director, had any direct discussions with Multiplex regarding the BMT Unit.

The main point of contact for the team and I was through the Project Team at Hillington. I understood that the Project Team then relayed on behalf of all services, the specific needs and requirements for each clinical speciality to be considered by Multiplex and the wider project structure.

The Project Team were the key conduit for information and communication in relation to the Project as we understood it. I do not believe there was any other mechanism in place for relaying information to multiplex, certainly from a service user level.

e) Involvement with Infection Prevention and Control in respect of the proposed change order?

A. As I have mentioned at point 13c above, the infection prevention and control support was provided from the Project Team at each of the meetings. I believe we send documentation to the Project Team as I previously stated outlining the specification for the Beatson West of Scotland Cancer Centre. We would have made the Project Team aware of the air sampling and testing procedures that we had in place at the Beatson and why these measures differed from what you would expect in a general haematology and haemato-oncolgy ward environment.

f) What ceiling types were specified and approved for use in Ward 4B? Who from the GGC Project Team approved this? Describe your involvement, if any? What was the impact, if any, of the choice of ceiling tiles? What concerns, if any did you have regarding the choice of ceiling tiles?

A. I do not specifically recall any descriptions of ceiling tiles, or any samples of materials being shared with us as a service team. I recall us discussing that the rooms required to be sealed rooms, the air locks, the layout of the

Beatson Unit, but I do not have any recollection of us being involved in the actual materials themselves chosen or installed for use in the QEUH.

g) What concerns, if any, did you have regarding the final design specification of Ward 4B, and what action, if any, did you take in respect of these concerns?

A. I don't recall that we had any issues with the final 'physical' layout of the ward itself. The main concern we had was in relation to the specification for the ward environment which we clearly stated at the Project Team meetings. We were pleased that we had the clinical synergies of ITU, HDU and the overall infrastructure support that was available on site at QEUH.

h) Whether at any time you were told by anyone that the ventilation system already planned for the hospital would not be able to provide 10 air changes per hour within the proposed adult BMT ward?

A. I do not recall being every informed that the ventilation system for the QEUH was unable to provide 10 air changes per hour prior to the transfer of the BMT Unit from the Beatson West of Scotland Cancer Centre.
My recollection is that the first time I, or anyone in my team heard this could be the case was after the service had transferred and moved back to the Beatson West of Scotland Centre.

14. To what extent did discussion of the proposed addition of an adult BMT ward in the QEUH consider the application of the specification for air change rate, pressure differentials and requirement for HEPA filtration set out for a 'Neutropenic Ward' in SHTM 03-01 ventilation for Healthcare Premises?

A. That is the very point that we made to the Project Team, we highlighted that the ward should not be considered as 'general haematology or heamto-oncology ward' we referred to this being similar to ward b7, which was a Haematology ward in the Beatson, but it did not undertake BMT; the specification for these two wards was different. I believe we articulated this specific point clearly and on several occasions. There was never any concern raised that the information provided was misunderstood or could not be achieved in the QEUH.

15. The Inquiry is aware that the change order not only confirmed that the Bone Marrow Transplant (BMT) service would transfer to Ward 4B in the QEUH but also that the haematology patients that were originally planned to accommodate Ward 4B would move to Ward 4C.

A. I think this related to moving the general haematology patients who were transferring from the Southern General Hospital, and to allow a better layout and environment. I suspect this could have been related to the 'retained estate' on the Southern General campus, and I think there were plans to either demolish or reconfigure the Medical block where ward 4b was housed. Again, I do not recall specifically or in any detail anything more that that.

a) Describe how this change was communicated to the project team and Multiplex and how this change was captured in the design and specification documentation.

A. I believe we notified the Project Team, but beyond that I would have no idea how this was communicated to Multiplex, other than through the Project Team themselves which was the agree mechanism for the coordination of the new build.

b) To what extent was there discussion at this time as to whether the specification for air change rate, pressure differentials and requirement for HEPA filtration set out for a 'Neutropenic Ward' in SHTM 03-01 ventilation for Healthcare Premises might now apply to Ward 4C is accommodating haematology patients who might well be neutropenic?

A. I would refer to point 13c above where I believe I have answered this point.

c) When did you first become aware of the issues identified within Ward 4B in June 2015?

A. My first recollection of any issue being identified with ward 4b was on or around the 30 June 2015. I believe I was alerted either by a phone call or an email from Myra Campbell. I believe that Myra had received the results of the first month's air sampling and these were showing a far higher count than would have been expected for this type of ward environment.

I am sure that Myra indicated that she had been in contact with, or was about to contact, the Infection Control team and Clinical Lead, Dr Anne Parker.

16. Please refer to the SBAR by Anne Parker **(Bundle 12, Document 34, Page 234)**. Patients migrated to Ward 4B in June 2015 however less than one month later they returned to the Beatson. The issues identified were present at the point of handover in January 2015, please explain why the ward was signed off and handover accepted given the issues which arose shortly thereafter.

A. I can see no reference to the statement that 'issues identified were present at the point of handover in January 2015. I was certainly not aware from memory of any issues being identified and brought to my attention or anyone else's attention in January 2015.

We were invited to look around the ward prior to the transfer of the BMT. There was several of us in attendance and we asked all the relevant questions about the ward at that meeting.

We had remarked about the absence of pressure monitors and room lobby areas. We were informed at that point that as this was a state-of-the-art building all of the control systems were monitored centrally. We were assured by Ian Powrie or perhaps Peter Moir (I think) that all the commissioning had been completed and that the ward was compliant with the specifications that had been set out. I believe this was stated to the entire team, not just myself. In fact, I think Dr Anne Parker refers to this in her statement.

17. In her statement at paragraph 203, Dr Inkster describes how she and Dr Peters were met with what they perceived as 'fierce resistance' when raising concerns about air sampling issues on Ward 4B on 30 June 2015 **(Witness Bundle – week commencing 30 September 2024 – Volume 7, page 74).** Do you agree with this description of your response? If so, do you believe your reaction was influenced by the belief that the ward was compliant at that time?

A. I was rather surprised to see the term ‘fierce resistance’ being used. It is entirely fair to say that this meeting was called at very short notice to try and understand what the actual issue was with the BMT unit and the air sampling results.
I recall Myra Campbell alerting me in advance to the fact that one of the infection control doctors (possibly Dr Peters) had expressed a concern that she felt she was not being listened to more widely, so I was aware of the sensitivities in the room. I feel that we were challenging each other on the facts that were in front of us as this was a totally unexpected event.

I recall that we were all at ‘different places’ for example I was asking how this could be the case if the initial commissioning process had shown that the ward results were within a satisfactory level. So, for example, could these be spurious results given the ward had just opened and there may have been a higher level of footfall and activity affecting the ward environment. It became apparent however from the meeting that the infection control team were stating that they had not been involved with, or seen, the results of the building commissioning.

I feel that we all assumed that each person had been involved at different stages and once we had clarified that the infection control team had not been involved, and that the service teams had not been involved, we were clearer about the issues and matter at hand and were in a more focused place about what we were trying to address.

I distinctly recall thanking the ICD for their input and stated that I would take on board the issues and ensure these were escalated and acted upon immediately. It would not have been my intention to display ‘resistance’, I don’t believe I showed any resistance. This was a short notice urgent meeting to establish a set of facts and determine what actions were necessary a result. I then followed up on those actions and felt we had a very good relationship with the infection control doctors.

18. Please refer to your briefing note dated 6 July 2015 **(Bundle 13, Document 116, Page 840)**.

(a) How concerned were you when you were informed about the air sample results exceeding the recommended standards? Was there an immediate recognition of the potential risks to patient safety?

A. I was very concerned about the results of the air sampling. We had a longstanding programme of testing in place at the Beatson and were aware of the risks that a sub optimal clinical environment could place patients in. I was concerned and that was why I took clinical advice on what immediate steps we should take.

(b) When the air sample measurements were found to exceed the acceptable particle count, what was the immediate clinical response? How did you assess the level of risk to the patients in the BMT unit?

A. Yes, the clinical team attended the meeting with me; therefore, we spoke through a number of immediate measures for implementation.

These were to ask estates to increase the ventilation to its maximum capacity, undertake further air sampling to ensure that this was not a set of spurious results, increase the cleaning schedules to twice daily, introduce prophylaxis to allograft patients. We agreed that we would meet again on 03 July to review the results and assess a course of action from there.

There may be further documentation that states the actions; however I do not have access to any emails or correspondence from my time at NHS GGC.

(c) The note mentions that only one of the 24 rooms met the air quality specification, while others far exceeded the acceptable standard. What were the potential or actual consequences of non-compliance with the air quality and ventilation standards for BMT patients?

A. Having been General Manager for these services from 2009, I was aware of the risk of treating immune compromised patients in a sub optimal environment. The environment could expose the patients to infections and jeopardise the effectiveness of their treatment. The risks were explained to me

by the clinical team, and it was based on their advice that we agreed what actions to progress.

19. Please refer to email exchange dated 7th July 2015 regarding the ventilation issues within Ward B and the original building requirements and validation process for the BMT unit **(Bundle 27, Volume 3, Document 18, Page 311).**

a) Professor Craig Williams states that, “if the building is provided to the original specification it will provided a safe environment for patients”. What are your views on this statement? Is this accurate?

A. I believe this is a similar point to the one that I answered earlier.
I had asked for copies of the original drawing and notes that we had made on the various occasions when we met with the Project Team at Hillington. I wanted to assure myself that we had not missed anything in relation to the specification we had described and the comparable level of environment to that of the Beatson. These documents, I was told, were now destroyed owing to storage space. I was surprised by this and met with the Clinical Service Manager to discuss and assure myself that we had given sufficient information to the Project Team at the time. We both believed that we had been explicit about the specific requirements, particularly given that there had been similar issues with the original transfer of BMT from Glasgow Royal Infirmary.

I believe Dr Williams in this statement is highlighting that point, in so far as if the building systems were designed in the way that we asked and specified, then it would be a safe environment in the same way the Beatson was for these patients.

b) What measures should have been put in place during the design and commissioning of the BMT Unit to prevent the issues with ventilation and air quality from arising in the first place?

A. I believe we had articulated that case for a BMT unit, we had specified the difference between a general haematology ward and a BMT unit, we had given examples of the issues associated with the transfer form Glasgow Royal Infirmary; importantly we given assurances that this would all be implemented into the new BMT unit at QEUH.

There were no follow up communications stating that the specification could not be met or achieved. We perhaps in retrospect could have been more vociferous, however we were never under any form of impression that there may have been an issue with anything that we had specified.

In retrospect, I would have asked for evidence locally, of the outcome of the building commissioning and validation process rather than it being a centralised process of commissioning.

c) At what point did you determine that the risks associated with staying in the unit outweighed the potential impact of transferring the patients?

A. I believe that decision was reached on 03 July after the follow up meeting with Infection Control and the Clinical Team. There had been a slight improvement in the air changes, pascal count and to some of the rooms. However, I determined with clinical advice and support that the safest option for the patients was to transfer them back to the Beaston, and they would remain there until we could be satisfied that the ward environment was of standard that would safeguard patients from the risk of infection.

I recall this decision specifically as the meeting and decision occurred on the day of the actual visit and opening of the Hospital by Queen Elizabeth II.

d) Did the early issues concerning Ward 4B raise any concerns about the safety of other areas within the hospital? How did you ensure the safety of the other wards under your responsibility?

A. I recall discussing the issue with two colleagues specifically, they were the Director of the South and the Director of Woman and Children's services. I also briefed the Chief Operating Officer in relation to the events that were emerging from the BMT transfer. I also recall informing colleagues at a dinner on the evening of the 3 July about the decision to transfer patients back to the Beatson.

I recall also having discussions with the General Manager for the Renal Unit. They had already reviewed the renal unit as there had been issues with two of the rooms on that unit. Anne Parker refers to this in her SBAR. Those issues had been resolved. I was also aware of an issue with a second water filtration system that was required for renal dialysis patients; there was a process in place to resolve this and a second unit would be installed. Again, this is all from memory so I cannot confirm if these events were concurrent or at different time intervals.

I am also confident that I circulated the briefing paper of 06 July to Acute Director colleagues for awareness of this issue. We also had a Friday morning Directors meeting where I recall discussing the issues that were arising from the transfer.

20. At a BICC meeting on 27th July 2015 Professor Craig Williams states that in respect of ward 4B "*the unit was not built to the correct specification and Brookfield have agreed to fund the rebuild for this area and the timeframe for this is 12 weeks*". Please discuss this statement.

A. I was not present at this meeting where Dr Williams stated this point nor was I a member of the Board Infection Control Committee.

However, I believe that by this point there was a realisation that the BMT unit was not built to the specification that we had set out. I suspect that Dr Williams was making the committee aware of this issue as part of an overall update on issues associated with the new hospital. There is evidence of this in the email contained in **Bundle 27, Volume 3, Page 295** – where Dr Williams appears to confirm to Dr Hood that 'the rooms were not built to the spec and as you clearly say they should have been to the same spec as the Beatson'.

There had been meeting with Brookfield and the Estates team, involving David Louden as the Director of Estates and Facilities. I suspect it was around this point in time that it was formally recognised that the ward did not meet the specification we had set out.

a) Were the issues with Ward 4B discussed with the Board?

A. I was not a Board member, nor was I a Corporate Director. I was an Acute Director. I anticipate that the updates were being provided to the Board either through the Medical Director (who I recall was the 'on the move' lead) or by the Chief Operating Officer for the Acute Division who I reported to, or by the Director of Estates and Facilities; all of whom would have been either members or 'in attendance' at the Board itself.

b) What concerns did the Board have in respect of these issues?

A. I was not involved in direct discussions with the Board.

c) What steps were taken by the Board to address these?

A. I was not involved in direct discussions with the Board.

d) What steps did you/the Board take to ensure these were sufficiently addressed?

A. I was not involved in direct discussions with the Board.

21. Please refer to the Report by Multiplex of Remedial Works to Ward 4B (**Bundle 27, Volume 3, Document 9, Page 175**).

(a) After the decant of ward 4B, what remedial works were undertaken?

A. From memory and review of the correspondence bundles, the work that was undertaken related to: Bedroom and Ensuite walls and ceiling being sealed, I think the ceilings were refitted and 'smoke tests' were performed. Hepa filtration was installed, lights fitting were sealed, pressure monitors were to be added, the pentamidine room air flow was rebalanced, room maintenance and cleaning schedules were implemented, and I believe the rooms and ceiling were painted or coated with anti-fungal materials. Finally, the nurses station was fitting with a monitor and alarm system.

There were several iterations of remedial work, therefore I cannot recall what order they occurred. I again state that I am writing this from my memory of events rather than drawing facts from documents or emails from the time.

(b) In this document, there are several assessments and validations in relation to ventilation, air flow etc. Were similar assessments and validations received when the hospital was initially handed over in January 2015? If not, why not?

A. From a service perspective, we had asked the question of building validation on the walkaround of the ward. As previously stated, we were assured that the environment was built to the specification that we had outlined at the Project Team meetings.

I was not involved in this aspect of the process, nor did I see any validation data in advance of the BMT service transfer. I do not recall any services being provided with this information from memory. I recall that there was a process for sign off and acceptance of the building, but I believe this was undertaken centrally and not on a directorate-by-directorate basis. I believed at the time that validation checks and the specification for the new building were being undertaken centrally between the Project Team, the On the Move team, Infection Control and the Estates team. I do not recall any of my Acute Director colleagues being presented with data on either ventilation schedules or water quality schedule. From an infection control perspective, I believe that the Project Infection Control Doctor, Dr Williams, had reviewed and signed off on the building performance.

The first time that we had any discussion about with was then we met with the Infection Control Doctors following the outcome of the air sampling. This was when it became clear that the Infection Control Doctors, locally, had not seen the validation data. I believe there was a suggestion that Dr Williams had been involved in the sign off process from the Infection Control perspective. It was clear at the meeting that if this was the case, then the local ICDs who were involved and providing support to the services, had not had access to that information.

(c) Were you satisfied with the remedial works outlined in the report, and the results of the assessments and validations within?

A. I think it is reasonable to state that expert advice had been sourced, and we had a level of confidence that the remedial works would create a suitable clinical environment.

The process however involved a number of multi professional opinions to formulate a view that environmental issues were satisfactory. I think there were several attempts to get this right. In fact, I believe that there were ongoing concerns expressed by the Infection Control Team and that Health Protection and Health Facilities Scotland advice was sought. I believe this may have been when Annette Rankin became involved at the behest of Dr Inkster or Dr Peters.

22. Please refer to the BMT Options Appraisal **(Bundle 27, Volume 7, Document 6, Page 158).** On what basis were you asked to prepare this options appraisal and by whom?

A. I suspect that the commission was agreed with either Jonathan Best, or Jennifer Armstrong. I seem to recall that it was felt that there should be an assessment of available retained estate on the QEUH campus in the event that the BMT Unit might never reach a satisfactory specification for either the Infection Control Team, or the Clinical Haematologists.

(a) Please explain the key objectives and criteria used in the options appraisal, such as the Benefits matrix and scoring system?

A. We used an experienced project manager to take this appraisal process forward using Capital Investment Manual agreed criteria (I seem to recall from memory) All parties would have agreed on the criteria and methodology etc. The Planning Manager was had previously undertaken such exercises and guided us on the process and how the option appraisal process would work. I think each section was agreed and weight added so a baseline scoring document was developed and then scores applied by the various teams and individuals involved in the process.

b) The options appraisal accepts that ward 4B did not meet standards set out by SHTM-03-01. What upgrades or modifications were made to Ward 4B between 2015 and 2018 that made it suitable for the BMT service again?

A. I don't have access to that specific information. However, there was considerable work undertaken, which again did not appear to achieve the level of specification that Infection Control Doctors felt comfortable with. I recall the Teresa Inkster had requested the support of Health Facilities Scotland and Health Protection Scotland as previously stated. This is where Annette Rankin and other colleagues become involved. I think wider advice was sought from a Dr Hoffman who was able to give expert opinion on BMT services.

c) Considering that two of the options assessed in the appraisal process scored higher than the QEUH 4B option, could you explain why the recommendation was made in favour of the QEUH 4B location? How were environmental standards balanced with factors such as staffing and timescales in reaching this decision?

A. This was a complex discussion and hence why the paper drafted for the Acute Service Committee had a specific caveat that the outcome was based on the Clinical Haematologist's views and wishes, and that these were being presented as the 'service' view.

The Clinical Haematologists were of a view that the QUEH was preferable to the Beatson, and the other options would be too far off in the future and would result in patients remaining at the Gartnavel Campus where there was less clinical infrastructure to safely manage their clinical presentation.

I felt I had to be explicit in stating this in the paper so as not to mislead anyone that there was a consensus way forward that all multi-disciplinary colleagues agreed with. This simply wasn't the case despite going through the options appraisal process.

d) In her oral evidence to the Inquiry, Dr Jennifer Armstrong stated that this was not the paper presented to the Acute Services Committee, and that she felt

'uncomfortable' with the recommendations. Were you aware that this options appraisal was not the version presented to the Acute Services Committee? Have you seen the version which was presented to the Acute Services Committee? How did it differ from this version?

A. I recall having a meeting with Dr Armstrong as she was not comfortable with the was that the paper was written.
I explained to her exactly what I have stated at point c above. There was no consensus and therefore as a Service Director, I stated what the preferred views were of the clinical haematology team, but these views were not universally agreed or supported by the Infection Control team.
I think that Dr Armstrong has hoped that we would be able to reach a consensus view from all parties, but this was not case even at this stage in the process. I think Dr Armstrong had asked me to reconsider some of the points in the paper and how I had stated these. I actually recall having a disagreement with Dr Armstong as there was no clear option that brought infection control and clinical haematologist to the same viewpoint on this issue.

I do not think that the paper actually went to the Acute Service Committee at all. Again, I state this from memory and the fact that I was not a member of the Acute Service Committee so would not have had paper circulated to me for the meeting.

e) Did you have any involvement in updating or adapting this appraisal? If so, could you describe your input in the process and how it differed from the previous version?

A. As I mentioned above, I do not this this paper went to the Acute Service Committee following my discussion with Dr Armstrong.

23. Please refer to the Transplant Service Relocation Proposal **(Bundle 52, Volume 1, Document 46, Page 843).**

(a) Did you have any involvement in this proposal? If so, please detail your involvement.

A. The reference relates to an email and there is no paper attached. Therefore, I am not able to answer this point accurately.

(b) The proposal mentions air monitoring and water monitoring alongside other measures undertaken to ensure Ward 4B is appropriate for transplant patients and facilitate the proposal to return the BMT to the QEUH. What was your involvement in ensuring appropriate measures had been taken to allow the return of the BMT to the QEUH?

A. There was a number of detailed ‘go’ and ‘no go’ decisions prior to the service transferring back to the QEUH. These decisions involved the General Manager for the service who was leading the process with representatives from the Estates team, the Haematologists, the Infection Control team and I seem to recall external advice from Health Facilities Scotland and Health Protection Scotland. I was being briefed by the General Manager directly. I think from memory these updates were also provided in to the Directorate Management Team and Directorate Clinical Governance Group.

(c) Following the relocation to Ward 4B, how did you ensure that air and water quality were continuously monitored to safeguard patient safety? Were regular checks, audits, or risk assessments conducted, and how were the results used to resolve any potential issues?

A. Yes, as previously stated, there are a number of checks that take place to monitor and sample the environment, as was the case at the Beaston. I do not have access to records that allows me to write these in any detail, but I am confident these could be sourced from the service if required. These would have included a similar schedule to that already in place at the Beatson West of Scotland Cancer Centre.

24. With reference to your answer to Question 13(c) of your statement:

a) In which year or years did these meetings take place?

A. From memory, those meetings would have occurred in the second half of 2013, and possibly the first half of 2014.

b) Are these meetings related to the Reviewable Design Process for Ward 4B described in PMI 228 **(Bundle 16, Document 27, Page 1697)** and then completed before the NEC Compensation Event CE 051 **(Bundle 16, Document 30, Page 1700)**?

A. The meeting that I reference at 13c are the meetings that followed from the initial 'Directorate Change Control Procedure Document' on page 1699 completed by Jonathan Best.
I suspect that the NEC Compensation Event document is as a result of the meetings that we had as a service team. I do not recall however seeing these change control documents at the time, I suspect they were held centrally by the Project Office.

c) At the end of the meetings were you and your colleagues ever asked to sign drawings or room data sheets to confirm agreement with the design?

A. Yes, we were all asked to sign our names on the large A2 / A3 drawings to say that we had reviewed the documents and agreed with the layouts or any changes that had been marked up on the floorplans following our team discussions with the Project Team.

d) Who (if anyone) was present at any of these meetings to provide technical advice on ventilation issues?

A. I don't specifically recall anyone other than Heather Griffin, Fiona McLuskie and Mhairi (cannot recall surname) being present at these meetings. These were the three individuals that I recall being in attendance.

I have referenced in my earlier statement (question 16) that I recall having a conversation with Ian Powrie, or Peter Moir. Whilst reflecting on this comment, I also recall the name Colin Purdon (I think) although I cannot state with any certainty that he was at any meetings either with myself and the clinical team. I think he may have become involved at a later stage or after the transfer had taken place.

e) Were minutes taken of these meetings, and if so, by whom? Were those minutes or notes circulated after meetings?

A. As I recall, these are the same meetings where we signed the drawings. I don't think that the large drawings were circulated electronically, I recall asking for a copy of the drawing at one point so that the clinical teams could share the information with their colleagues back at the Beatson.

We all certainly took notes when we were in attendance, I seem to recall that Mhairi (cannot recall her surname) did take notes on behalf of the Project Team. These I believe were used as part of the overall progress monitoring of the QEUH Project.

f) Were such minutes or notes held electronically?

A. I have a recollection that these may have been manual, hence why I mentioned trying to recall the notes of meetings (19a) once we were aware that something was not right from the air sampling results.

25. With reference to your answer to Question 13(e) of your statement, can you remember the name of the Infection Control team member present at these meetings?

A. I am reasonably confident that it was Fiona McLuskie from the Project Lead Infection Nurse and that she was the conduit for Infection Control issues. I also seem to recall that oversight on Infection Control issues was given by Dr Craig Williams, he was the IC Doctor associated with the project.

26. With reference to your answer to Questions 13(c), (f) and (g) of your statement you have explained that when you went on to discuss the ward layout you had had to sign some drawings and mark up our comments on the specification. The Inquiry has seen drawings for Ward 4B from 2015 (See Bundle 47, Volume 1, Documents 2, 3 and 4) that do not have an air lock at the entrance to Ward 4B. Are you saying that the drawings you signed did show an air lock at the entrance to the ward or was it the case that you did not have any issues with the final 'physical' layout of the ward itself despite the absence of an airlock on the drawings?

A. The drawings in the bundle refer to July 2015. The questions at 13c, f and g relate to the period of time when we were meeting the project team at Hillington this would have been late 2013 or early 2014.
I cannot accurately comment without being able to reference the drawings that myself and the team reviewed in 2013 /14.

27. With reference to your answer to Question 13 of your statement how did you ensure that on the arrival of transplant patients in Ward 4B on 6 June 2015 the ventilation system for both the ward as a whole and the BMT isolation rooms in particular was operating on accordance with the standards then set down in SHTM 03-01 or that there was a derogation in place if it was not?

A. We established the air sampling process in conjunction with the microbiologist. This was in place almost immediately if I recall correctly. That would correlate with the fact that we moved the service back in such a short space of time.

I would also reference my answers given at questions 11, 12 and 16 of my initial statement.

28. With reference to your answer to Question 14 of your statement:

a) Did you set down this instruction (that the adult BMT ward would be a 'Neutropenic Ward' in terms of SHTM 03-01 ventilation for Healthcare Premises) down in writing at the time?

A. I cannot add anything to this question as I believe that I have answered it as best as I could from memory in question 13 and 14 of my initial statement. We had been clear with the Project Team that a BMT Unit was not the same as a Haematology or Haemato-Oncology ward, hence we had also outlined that we did not think there was a standard building note and to reference the drawings and systems in place that were used to build the Beatson around 2009.

b) Why does the explanation that you give here not appear in your 6 July 2015 briefing on the issue (Briefing at **Bundle 13, Document 116, Page 840** and your cover email of 6 July 2015 in **Bundle 27, Volume 3, Document 12,**

Page 291) or in your May 2018 briefing on the return of the BMT Service to the QEUH **(Bundle 52, Volume 1, Document 46, Page 843).**

A. I don't see the relationship to question 14 and the briefing note or email that I issued on 06 July. The briefing note was an overview of the events that had occurred and were coming to my attention at the time. The briefing note was used as an overview of the live issue that was arising from the air sampling process.

29. With reference to your answer to Question 16 of your statement could it be the case that if Mr Powrie or Mr Moir told you and your colleagues "that the ward was compliant with the specifications that had been set out" he was just referring to the drawings that had been signed off and approved for construction after the design process?

A. This conversation related to the discussion about pressure monitors and their absence, plus the layout of the ward when we visited it.

The context of that conversation related to the fact that it was a state-of-the-art building. We were discussing how the clinical teams would be alerted to issues if there were no physical monitors present in the ward.

I, and I believe the others present, understood this statement to mean that despite the absence of the pressure monitors, the process for alerting the ward to changes in the pressure was in place, albeit it was part of a central building control system. I recall that myself, Myra Campbell and Anne Parker all thought that was an advancement in building design and technology.

30. With reference to your answer to question 19 and the destruction of records:

a) Who told you the drawings and notes were destroyed due to "storage space"? When was this?

A. I do not recall which individual it was, but it must have been either Heather Griffin, Fiona McLuskie or Mhairi. It would have been on or just after the meeting of 30 June, or at the very start of July. I do recall being informed it was due to a lack of storage space. I am also confident that I mentioned this

fact immediately to Jonathan Best as I was briefing him on the events at the time.

b) Did you understand the lack of “storage space” to be physical or electronic?

A. I understood it to be physical space - the drawings I am sure were all ‘hard copy’ as I have previously stated.

c) Was the Clinical Services Manager with whom you checked about notes/drawings and the information passed to the Project Team, Myra Campbell?

A. Yes, I met with Myra Campbell and we discussed the issue and what correspondence and notes we had. I am sure I attended a meeting with Robert Calderwood and David Louden around this time and I wanted to be sure that I had as much information as possible to hand.

I recall discussing with both these individuals the information that I had available to me at the time of this meeting.

d) Were those drawings held electronically? If not, how were the requirements passed by the NHS Project Team to the design/construction teams? Who would have been responsible for that?

A. Again, as stated at 13 d of my initial statement, it was my understanding all information was being passed through the Project Team at Hillington.

As I have also stated, the layouts were all on paper as far as I can recall, hence why we used to attend that physical location for our meetings and discussions about the ward.

e) Following the response that you describe to your query, did you report the destruction of these records to any of the persons involved in the response to the state of the ventilation system of Ward 4B including Dr Armstrong and Mr Calderwood? If so, how?

A. I certainly recall informing Jonathan Best. Robert Calderwood was aware as I mentioned in relation to 8c above. I am also confident that Jennifer Armstrong was aware too as I recall having a conversation with her.

I am sure I would have stated this in writing somewhere, but again I have no access to my former GGC account.

31. In respect of your answer to question 20 of your statement, did you report your concerns that Ward 4B had not been built to the standards you had supplied to the NHS GGC Project Team to your line manager, the Chief Operating Officer, the Medical Director or the Chief Executive?

A. This was the unfolding question, and I believe it is what Craig Williams and the Infection Control team were trying to determine based on the air sampling results.
From a service perspective, I / we would not be aware of any of the mechanical engineering build aspects themselves, nor could we have commented on them if they were available without estates and engineering expertise. Therefore, we were at a stage of trying to work out why the air sample results were not to a standard that would be expected based on the information we had provided as a service team.

I certainly reported that air sampling results were not what we had expected, hence why the service returned after a further set of air sampling had been undertaken.

32. In respect of your answer to question 21 of your statement and your evidence that “we had asked the question of building validation on the walkaround of the ward” did you ask about validation of the ventilation system in the sense of an independent assessment of the operation of the system against external standards? Did you see any validation reports? If not, why not?

A. I believe I have answered this at 21b second paragraph of my initial statement, and at question 7 above. I do not explicitly recall asking about independent assessments prior to the initial move.

However, following the return to the Beatson, the infection control team plus estates and facilities colleagues were involved in looking at and giving advice on the amendments required for ward 4b.

33. In respect of your answer to question 23 of your statement the attachment to the email in **Bundle 52, Volume 1, Document 46, Page 843** was not bundled when you received your question. It has now been bundled and the attachment has been added to your Objective Connect space. Please review your answer to Question 23 of the initial questionnaire in light of the attachment.

A. I have reviewed the email and the paper that was sent to me by the Inquiry. 'Proposal to Relocate Adult Haemopoietic Stem Cell Transplant Service from Beatson West of Scotland Cancer Centre to Queen Elizabeth University Hospital.

I believe this is the paper from the Group that was addressing the rectifications to the environment of ward 4b. The paper was sent by Melaine McColgan. I do not believe I was part of the Group itself, however, I recall receiving progress updates through the Regional Services Directorate Structure. This may have been through the Directorate Management Team meeting, Clinical Governance Meeting, or directly from the General Manager for Specialist Oncology and Clinical Haematology Services.

Water Incident

34. **Please refer to Bundle 1, Document 19, Page 75.** You attended the IMT meeting of 21 March 2018 in relation to the Water Incident.

(a) What is your involvement in or understanding of the water issues in the QEUH/RHC?

A. I do not recall having had any involvement on water management issues to the QEUH site prior to this meeting taking place.

I would not have any knowledge of water handling systems, other than an earlier episode in relation to the renal unit requiring a second water 'loop' system to be installed.

(b) At this meeting it states, you will "communicate with Mary Ann Kane regarding what areas should be prioritised within the QEUH for the fitting of water filters into Ward 4A,4C,4D,7A and 7D". Why was there a need to fit water filters? Can you describe the process and criteria used to determine which wards should be prioritised for the fitting of water filters? What was the outcome of this?

A. It is likely that in the meeting we identified high risk areas; therefore the 4th floor was where Haematology, BMT and Renal services were located. My only recollection of 7A and 7D (which I think was respiratory) was that I seem to recall that occasionally outreach dialysis may have taken place in that area and therefore this was relevant. The only other reason I can think of that I would have been allocated respiratory may have been in the South Director was off on leave at the time of the meeting. I do however note that my title is not recorded correctly in the minutes of the meeting, it states that I am North Director, therefore there could have been an accuracy issue with the minute.

(c) What steps were taken following the identification of the water issues to ensure the safety of patients and staff at QEUH/RHC?

A. I believe there was a whole series of investigations into the water supply, alongside continual monitoring of the water tanks and environmental testing took place to try and identify the root cause of the issues affecting the water system.

(d) What role did the clinical governance structures play in managing the water incident?

A. I believe there was a specific incident management process for the water issues as this was a new issue with the hospital; these are likely to have linked through local directorate clinical governance structures.

Cryptococcus

35. Please refer to **Bundle 1, Document 59, Page 266.** You attended the IMT meeting of 17 January 2019 in relation to Cryptococcus.

(a) When did you first become aware of the presence of Cryptococcus at QEUH, and how quickly were the appropriate infection control measures initiated once the issue was identified?

A. My first awareness of this issue would have been when I attended the meeting on 17 January. The minutes give an account of the actions that were initiated at the time.

(b) Had you seen or heard of Cryptococcus in a healthcare setting prior to at the QEUH in 2018?

A. No, I had not heard of Cryptococcus prior to that point in time.

(c) How was communication managed between the infection control team, clinical staff, and external health authorities, and how did the coordination of these efforts ensure a swift and effective response to the outbreak?

A. I would only have been involved from the perspective of the ward areas affected and the actions that would have been necessary at operational level. I would not have been involved in linking with external agencies.
All of the clinical specialties within my portfolio were represented at the meeting and would have been made aware of the issues that were emerging.

(d) What immediate infection control measures were put in place to contain the spread of Cryptococcus within the hospital, and how were these communicated to relevant teams?

A. I recall there was an incident management group; I think most of the communication, actions and advice would have been led through this group.

(e) What role did clinical governance structures play in managing the incident? Was patient safety prioritised in the management of this outbreak?

A. I left the organisation in March 2019 and have had no further contact since that point; therefore, I cannot comment.

(f) In light of the Cryptococcus incident, what steps have been taken to strengthen infection control practices at QEUH, and how are these changes expected to prevent similar issues from arising in the future?

A. I left the organisation in March 2019 and have had no further contact since that point; therefore, I cannot comment.

Conclusion

36. Is there anything further you wish to add that you feel may assist the Inquiry?

A. Nothing that I can think of over and above what I have stated in this document.

Declaration

37. I believe that the facts stated in this witness statement are true. I understand that proceedings for contempt of court may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

The witness was provided the following Scottish Hospital Inquiry documents for reference when they completed their questionnaire statement.

Appendix A

A43255563 – Bundle 1 – Incident Management Team Meeting Minutes
A47390519 – Bundle 11 – Water Safety Group
A47069198 – Bundle 12 – Estates Communications
A48890718 – Bundle 13 – Additional Minutes Bundle (AICC/BICC etc)
A47851278 – Bundle 16 – Ventilation PPP

A49756324 – Bundle 27 – Miscellaneous Documents – Volume 3

A50002331 – Bundle 27 – Miscellaneous Documents – Volume 7

A51483446 – Bundle 29 - NHS Greater Glasgow and Clyde Audit Reports

A53674650 – Bundle 52 – Miscellaneous Documents – Volume 1

A49847577 – Witness Bundle – Week Commencing 2 September 2024 – Volume 3

A50152363 – Witness Bundle – Week Commencing 30 September 2024 – Volume 7

Scottish Hospitals Inquiry
Glasgow 4 Hearings
Second Supplementary Witness Statement of
Laura Imrie

Personal Details

1. Laura Imrie, Lead Consultant, Antimicrobial Resistance and Healthcare Associated Infection Scotland ("ARHAI Scotland") and Clinical Lead NHS Scotland Assure, NHS National Services Scotland ("NSS").

2. I have previously provided a witness statement to the Inquiry's Glasgow III Hearing **(Witness Bundle – Week Commencing 2 September 2024 – Volume 3, Document 4, Page 201)** and a supplementary witness statement **(Witness Bundle – Week Commencing 9 September 2024 – Volume 4 - Document 5, Page 275)**.

3. This statement is provided in response to a request made by Counsel to the Scottish Hospitals Inquiry. NSS submitted a closing statement **(Hearing Commencing 19 August 2024 – Core Participants Closing Submissions – Document 8, Page 147)** following the Glasgow III Hearing. Counsel to the Inquiry has invited NSS to provide information relating to a number of areas covered within that closing statement.

Alert Organism Surveillance

4. As referenced in several points within Counsel to the Inquiry's Glasgow III Closing Statement (**A51312578 – Glasgow III Counsel Closing Statement**), the Inquiry has heard evidence in relation to alert organism surveillance. This, along with the national alert organism list, is discussed at several points in the

closing statement – in **paragraph 16 of the introduction (page 5); paragraph 128 of chapter 3, (page 56); paragraph 359 of chapter 5, (page 307) and paragraph 802 of chapter 5 (page 445)**. I would like to ensure there is clarity regarding the role of the national alert organism list in supporting local NHS Board surveillance.

5. The National Infection Prevention and Control Manual (NIPCM) national alert organism list is evidence based and derived from Scottish epidemiological data, reported outbreaks in Scotland and the UK, and intelligence from ARHAI Scotland systematic literature reviews **(Bundle 19, Document 24, Page 440).** Appendix 13 of the NIPCM hosts the nationally agreed minimum list of alert organisms/conditions **(Bundle 52, Volume 5, Document 29, Page 131).** The purpose of this list is to support NHS Board IPC teams to establish and maintain local surveillance/reporting systems, including the development of triggers for clinical areas. The list is not exhaustive. Specialist units, for example those managing patients with Cystic Fibrosis, will also be guided by local policy regarding other alert organisms not included within these lists.

6. Ongoing local surveillance of other priority organisms, informed by local epidemiology and an understanding of the patient population being cared for, is an essential component of IPC surveillance. In addition, microbiologists working locally have the skills and expertise to identify unusual organisms that require further investigation. An electronic system cannot replace this expert knowledge. The NIPCM Chapter 3 details the assessment, investigation, management and communication guidance for suspected or confirmed Healthcare Infection Incidents, Outbreaks and data exceedances. This is irrespective of whether the organism is on the national or local alert Organism List or is identified by microbiology expertise.

7. Counsel to the Inquiry's Closing Submission **paragraph 220 of chapter 3, page 78,** states;

"ARHAI co-ordinates national surveillance of organisms. Ms Imrie explained that there were two ways in which ARHAI might not become aware of an unusual organism. Firstly, the health board might know about an unusual infection but not report it up to ARHAI. Secondly, the health board's local surveillance may not pick it up, so the health board is unaware of the unusual infection. The Inquiry heard evidence that a HIIAT may be carried out by a health board on an unusual infection but that may not lead to the health board reporting it to ARHAI. As she put it "when boards don't report things in, it's not just that we're not aware of it; it's that we're losing that national intelligence to plan for any emerging issues." However, the ICNET electronic system allows information to be pulled out of the local laboratory systems and patient management systems. It can be set up to look for one case of a particular microorganism and a trigger set if one occurs to alert HPS. In theory, a health board could set up triggers for a list of unusual micro-organisms. It was acknowledged by Ms. Imrie that there was a gap in the system if experienced microbiologists and scientists do not notice an unusual organism and escalate it".

8. I discussed in my oral evidence, provided on 6 September 2024, (**Laura Imrie, Transcript, Page 54, Column 104**) that where an incident meets the definitions within Chapter 3 of the NIPCM, ARHAI Scotland would expect the local NHS Board to report in line with the NIPCM. In my oral evidence I also discussed the challenges faced by ARHAI Scotland as a national body with responsibility for monitoring infection-related incidents when NHS Boards derogate from guidance. As I said in evidence;

"The effectiveness of reporting healthcare infection risks relies entirely on NHS Boards adhering to the guidance outlined in Chapter 3 of the NIPCM. I am aware that some NHS Boards have local governance structures that differ from the NIPCM, which means that the oversight SGHAIPU can provide is limited to what the NHS Boards choose to report."

9. In my oral evidence I also stated that NHSGGC had "developed its own governance structures around carrying out Healthcare Infection Incident

Assessment Tool (HIIAT) assessments and criteria for reporting infection-related incidents which appear not to align with NIPCM reporting." This was confirmed at the Glasgow III Hearings by the NHSGGC Director of Infection Prevention and Control during her oral evidence (**Sandra Devine, Transcript, Page 12, Column 19 & 20**). NHSGGC has since shared the local Incident Management Process Framework SOP with the Inquiry **(Bundle 27, Volume 17, Document 28, Page 315).** Within this document, "Section 2.1. Initial Assessment/Problem Assessment Group" states;

"An initial assessment is required to determine if an outbreak or incident is taking place. In a hospital, this will be carried out by the IPCT, or through a Problem Assessment Group (PAG). The initial assessment will be based on available information. It may not be possible to make a decision on the information available immediately and further investigations may be required.

A PAG may not always be required, and it is not necessary to hold a PAG prior to activating an Incident Management Team (IMT) meeting. If an assessment is required or a PAG is held the IPCT will complete an NHS GGC IPC Incident summary (Appendix 1)/or if no further action is required a situation summary will be completed as a record of discussions held. There are normally two potential outcomes to a PAG:

- No significant risk to public health and/or patients; the PAG stood down, but surveillance continues or
- There are some concerns and the situation is assessed using the National Healthcare Infection Incident Assessment Tool (HIIAT) (www.nipcm.hps.scot.nhs.uk/media/2260/2022-02-07-hiiat-v20.pdf - **Bundle 27, Volume 1, Document 67, Page 662**) all assessments regardless of outcome must be recorded on the Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Outbreak Reporting Tool (ORT)".

10. This local SOP appears to advise that a separate assessment is carried out locally prior to deciding if an assessment using the NIPCM HIIAT is required. This may account for the variation in reporting against the NIPCM.

11. I would like to make it clear that there is no suggestion by ARHAI Scotland that unusual organisms are not acted on by NHSGGC, either by the labs detecting and reporting these cases or the clinical team treating patients. In **paragraph 220 of chapter 3, page 78** of Counsel to the Inquiry's Glasgow III Closing Statement, it was noted that I discussed that there are instances where an NHS Board identifies an unusual organism but does not report it to ARHAI Scotland. In my oral evidence I provided examples of the reasons why an NHS Board may not report to ARHAI Scotland, including where local surveillance systems do not detect a cluster or outbreak or where the local IPC Team, who is aware of an incident, make a local assessment not to report through the national ORT (**Laura Imrie, Transcript, Page 26, Column 48**). This discussion regarding the identification of unusual organisms is not a reflection on the capability of local microbiology experts to recognise such organisms but rather pertains to the decision-making process around reporting in line with the NIPCM.

12. It remains the ARHAI Scotland position that the national reporting criteria should be standard across NHSScotland. This is to ensure the application of consistent and measurable definitions that allow for early detection and national monitoring of any emerging situations (**DL (2024) 24**) (**Bundle 52, Volume 2, Document 6, Page 69)**. ARHAI Scotland has noted that the Inquiry has recently released the NHSGGC Outbreak/Incident SOP For Outbreak/Incidents Of Communicable Or Alert Organisms In Healthcare Premises 2024 **(Please refer to Bundle 27, Volume 17, Document 28, Page 315)** which confirms there is a local process which may result in incidents not being reported to ARHAI Scotland following initial review by the local IPCT.

13. The Scottish Government has been leading on the development of an outline business case for a national IPC e-surveillance solution. This was completed in April 2025. It is intended that this system will have local and national functionality. ARHAI Scotland is contributing to the development of the national requirements for this system to ensure that intelligence on healthcare associated infections, including unusual organisms and those presenting

environmental risk, can be captured and integrated consistently and promptly within national datasets. Scottish Government published a Prior Information Notice (PIN) for the National Infection Prevention Control Intelligence Solution in January 2025 which notifies of its intention to tender future planned procurements (Public Contracts Scotland - National Infection Prevention Control Intelligence Solution – **Bundle 52, Volume 2, Document 26, Page 384**).

14. The ARHAI Scotland pilot methodology for surveillance of environmental organisms in high-risk units includes the development of local surveillance triggers that could potentially be built into future IPC e-surveillance solutions. At this time, the only funding agreed is to develop the outline business case. The funding to procure a national system for Scotland has not yet been agreed and so the future of such a connected system remains uncertain.

Additional Counsel to the Inquiry Questions

15. NSS was asked in an email from the Inquiry dated **26 March 2025**;

"We [The Inquiry] would be interested to understand if AHRAI or NSS more widely has a view on the extent to which "Assurance Information Systems" in NHS Boards **(Bundle 52, Volume 1, Document 12, Page 106, Paragraphs 5.2-5.4**) needs to involve an NHS Board being able to understand, through some reporting system, the emergence of and reaction to 'unusual infection' or potentially environmentally related HAIs outwith the nationally reportable infections".

16. It is the NSS/ARHAI Scotland view that local NHS Boards would be better placed to demonstrate what processes and reporting systems were/are in place to allow the Board Executive Team to understand HAI related risks and issues including those that may involve the healthcare environment.

17. In the same email dated **26 March 2025**, the Inquiry also asked NSS to specify;

"Its current concerns about the way that HAI/HCAIs are identified, reported and managed within NHSGGC as a whole and the QEUH in particular and what steps would it like to see taken to address any such concerns."

18. ARHAI Scotland does not have any concerns with NHSGGC's identification or clinical management of unusual organisms. Indeed, it was the proactive testing by clinical teams and identification of these unusual organisms by the clinical laboratory team that has provided the data on what unusual organisms have been present with this healthcare setting. ARHAI Scotland has seen no evidence to suggest that these organisms have not been reported by clinical laboratory staff to clinical teams in a timely and appropriate manner.

19. ARHAI Scotland has raised issues regarding the lack of a consistent approach by NHSGGC to the reporting of possible healthcare related infections, in line with NIPCM guidance. ARHAI Scotland has highlighted the challenges in obtaining information from NHSGGC to enable further assessment of incidents reported. During my oral evidence (**Laura Imrie, Transcript, Page 47, Column 89 and 90**) I have discussed some of the concerns ARHAI Scotland has continued to encounter when receiving requested information from NHSGGC.

20. In a further email dated **9 May 2025**, the Inquiry asked NSS;

"Are you able to assist the inquiry about whether an issue has arisen this year about NHS GGC failing to respond promptly to a request from the ARHAI to produce material about suspected Cryptococcus cases. Did you have to raise an issue about such a request with anyone at NHS GGC? Please set out the background to the request, the material sought and any issues that arose in obtaining the material from NHS GGC?."

21. On 15 November 2024 I received an email from Colin Urquhart, Policy Lead, Scottish Government, inquiring whether the ARHAI Scotland team was aware of

NHSGGC reporting additional Cryptococcus cases. Mr. Urquhart noted that this had been discussed during Drs. Sara Mumford and Linda Dempster's oral evidence to the Inquiry on 13 November 2024 (**Dr Sara Mumford and Ms. Linda Dempster, Transcript, Page 35, Column 66**). On the same day, Shona Cairns, Consultant Healthcare Scientist, ARHAI Scotland confirmed that ARHAI Scotland was not aware of the four cases that the witnesses had discussed during their evidence and that the last Cryptococcus case that NHSGGC had reported to ARHAI Scotland was in 2020 **(Bundle 52, Volume 4, Document 8, Page 72)**.

22. On 18 November 2024 **(Bundle 52, Volume 4, Document 8, Page 71)** Mr. Urquhart requested that ARHAI Scotland, as the national experts for IPC, contact NHSGGC to ask:

- Did the four Cryptococcus cases referred to by Drs. Dempster and Mumford exist?
- If they did, why were they not reported to ARHAI Scotland?
- Would NHSGGC now report the cases to ARHAI Scotland?

23. NHSGGC confirmed in an email on 19 November 2024 that the NHSGGC IPC Team had reviewed 7 cases of Cryptococcus in patients cared for in the QEUH since 2020 **(Bundle 52, Volume 4, Document 9, Page 77)**. Staff stated that the cases were not reported to ARHAI Scotland through the Outbreak Reporting Tool (ORT) because, at the time, NHSGGC "believe[d] that none of them fulfil the NIPCM Chapter 3 criteria for reporting" however, "one of the cases was reported to ARHAI in 2020".

24. In a meeting between Mr. Urquhart and myself on 22 November 2024, it was agreed with the Scottish Government that ARHAI Scotland should undertake a retrospective analysis of Cryptococcus data across all NHS Boards in Scotland, to better understand cases from a national perspective.

25. There was some challenge in extracting data from the national system and so a Pro Forma was issued by Dr Teresa Inkster, Infection Control Doctor/Consultant Microbiologist, ARHAI Scotland to the Scottish Microbiology Virology Network (SMVN) on 27 November 2024, to facilitate the return of local NHS Board data. Dr Abhijit Bal, Consultant, Head of Service Microbiology and Infection Control Doctor, NHSGGC, queried whether Caldicott approval was required to submit local data to ARHAI Scotland **(Bundle 52, Volume 4, Document 10, Page 80)**.

26. On 27 November 2024 I shared this response with the NSS Medical, Nursing and NHSScotland Assure Directors internally and the Scottish Government Chief Nursing Officer Directorate (CNOD), as I anticipated that this might cause a delay in the information being available. It was also agreed with Dr Sharon Hilton-Christie, Medical Director, NSS, that she would contact Dr Scott Davidson, Medical Director, NHSGGC to discuss any concerns in relation to Caldicott approval. It should be noted that there has been an Intra NHSScotland information sharing agreement in place since 2023. Dr Inkster informed Dr Bal of this in an email dated 28 November 2024 **(Bundle 52, Volume 4, Document 13, Page 102)**.

27. On 2 December 2024, NHSGGC informed ARHAI Scotland that we would only be provided with anonymous and de-duplicated data within the suggested time frame of 6 December 2024, to which ARHAI Scotland agreed. ARHAI Scotland received this information on 10 December 2024 **(Bundle 52, Volume 4, Document 15, Page 109)**. It should be noted that anonymous and locally de-duplicated data does not allow ARHAI Scotland to carry out a national assessment. This information was shared with the NSS Medical Director. Following a further conversation between NSS and NHSGGC Medical Directors, NHSGGC provided the full data set.

28. On 21 February 2025 following a review of the national data, the Scottish Government CNOD requested that more details of cases from two separate NHS Boards be sought to establish any possible links to the healthcare

environment. ARHAI Scotland requested further information from NHSGGC regarding the seven reported Cryptococcus cases, with a return deadline of 14 March 2025. On 6 March 2025 NHSGGC requested a deadline extension, to which the ARHAI Scotland team responded by requesting a data submission timeline of NHSGGC. NHSGGC confirmed on 13 March 2025 that the team would "have a better idea of timelines [to return the requested information] once we contact clinical colleagues" **(Bundle 52, Volume 4, Document 16, Page 113)**.

29. Between 14 March 2025 and 17 April 2025 there was correspondence between NHSGGC and ARHAI Scotland, including both Medical Directors, as we looked to agree a deadline for information to ensure that our retrospective analysis could be finalised **(Bundle 52, Volume 4, Document 21, Page 127)**. NHSGGC noted that they needed answers from ARHAI Scotland to follow up questions, due to the "unusual request for patient-sensitive information" and confirmed that the delay in providing the clinical information was because the IPC Team "would need to contact the patients' consultant." NHSGGC also noted that "The ICDs do have concerns and requested answers to a list of questions to provide some context to these clinicians."

30. The final email from my records is dated 17 April 2025, in which Dr Scott Davidson confirmed that NHSGGC would provide the follow up information as soon as it was available **(Bundle 52, Volume 4, Document 21, Page 127)**. We still hope to receive this information and are in continued discussion with Scottish Government colleagues, who have now taken a lead role to retrieve this local data.

31. I am happy to provide the Inquiry with further information on this matter to assist its understanding of events.

The QEUH/RCH Advice and Assurance Review Group (AARG)

32. With reference to paragraph 9 of this statement, I have been asked to review Ms Devine's response to Question 19 in her statement for the Glasgow 4, Part 2 hearing that addresses questions about the *NHS GGC 'Incident Management Framework SOP*' (**Bundle 27, Volume 17, Document 28, Page 315**).

a) I have been asked to comment on whether I accept that "NIPCM's definition of an outbreak/incident is open to interpretation".

Yes, it is reasonable to acknowledge that the National Infection Prevention and Control Manual (NIPCM) definition of an outbreak or incident may appear open to interpretation for a lay person, but this is not the case for trained Infection Prevention and Control (IPC) specialists. The definitions are intentionally not overly prescriptive, allowing for professional judgment to be applied by those with the appropriate expertise.

NHS Board IPC specialists should be suitably qualified and experienced to interpret and apply the guidance based on local intelligence, including factors such as pathogen type, incubation periods, potential sources, and the patient population. This flexibility ensures that responses are context-specific and proportionate.

Furthermore, NHS Board Infection Prevention and Control Teams (IPCTs) are actively involved in the development and review of the NIPCM. As such, they understand it as a working document, designed to support real-time decision-making. IPCT interpretation is also guided by the expectations set out in the Scottish Government Directorate Letters. In April 2017, Chief Nursing Officer Letter (https://www.nipcm.hps.scot.nhs.uk/media/1653/2017-04-03-nipcm-endorsement-letter.pdf) **(Bundle 52, Volume 5, Document 11, Page 72)** introduced Chapter 3 of the NIPCM stating:

"The NIPCM is mandatory for all NHSScotland employees and applies to all NHSScotland healthcare settings, NHS provided services as well as, independent contractors providing NHS services and private providers of

healthcare."

Most recently, **DL (2024) 24** (https://www.publications.scot.nhs.uk/files/dl-2024-24.pdf) **(Bundle 52, Volume 2, Document 6, Page 69)** reinforces the responsibilities of NHS Boards to adopt the NIPCM:

"3. As Scotland's national-level clinical IPC experts, ARHAI Scotland is responsible for providing expert intelligence, support, advice, evidence-based guidance, clinical assurance and tailored national leadership to stakeholders in response to outbreaks and incidents. This informs and enables local capability and the development of epidemiological intelligence, underpinned by available evidence.

4. Therefore, NHS Boards are required to provide information on infection incidents, outbreaks, and data exceedances directly to ARHAI Scotland, as set out within the NIPCM, to ensure comprehensive national-level infection incident data is available.

5. Scottish Government expects NHS Boards to engage openly with ARHAI Scotland as appropriate in respect of their role as national-level clinical leaders in relation to the prevention and control of HCAI.

National Infection Prevention and Control Manual

6. Scottish Government expects all NHS Boards to adopt the NIPCM. NHS Boards will maintain local assurance of compliance with, and implementation of, the guidance through continuous monitoring in all healthcare settings. Local compliance and assurance processes should be supported by robust governance arrangements.

7. The Healthcare Infection Incident Assessment Tool (HIIAT) should be used to assess every healthcare infection incident i.e. all outbreaks and incidents (including exposure incidents, decontamination incidents or near misses) in any healthcare setting (that is, the NHS, independent contractors providing NHS services as stated in Chapter 3 of the NIPCM).

8. As you will be aware, early detection and timely assessment of a possible incident, outbreak or data exceedance supports implementation of appropriate control measures to prevent ongoing transmission. An early and effective response to an actual or potential healthcare incident/outbreak is crucial. Your local infection prevention and control team and health protection team should be aware of and refer to the national minimum list of alert organisms/conditions in Appendix 13 of the NIPCM.

9. Whilst there is provision for NHS Boards to derogate from the NIPCM, Scottish Government expects that NHS Boards continue to ensure safe systems of work by the completion of a risk assessment and escalation approved and documented through local governance procedures."

b) I have been asked whether I accept that paragraph 2.1 of the *NHS GGC 'Incident Management Framework SOP* is "entirely consistent with the guidance in the *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams,* section 6.4 (**Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams - Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams - Publications - Public Health Scotland**).

I accept that Paragraph 2.1 of the NHSGGC 'Incident Management Framework SOP' appears to be a direct lift from Section 6.4 of 'Management of Public Health Incidents: guidance on the roles and responsibilities of NHS led incident management teams document' (https://publichealthscotland.scot/publications/management-of-public-health-incidents-guidance-on-the-roles-and-responsibilities-of-nhs-led-incident-management-teams/management-of-public-health-incidents-guidance-on-the-roles-and-responsibilities-of-nhs-led-incident-management-teams/) **(Bundle 27, Volume 14, Document 18, Page 88)**.

It is, however, unclear why a local NHS Board framework document addressing healthcare infection incidents would incorporate elements from broader public

health guidance, given that the Management of Public Health Incidents document consistently references the NIPCM as the primary source of guidance for healthcare associated infection incidents, as listed below:

- The Purpose, Statement and Scope section (page v) states,

  "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/"

- Page 8 Table 1: Classification of public health incidents and suggested level of response,

  "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)."

- Page 33, 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)."

- Page 64 Annex C clearly directs NHS Boards to follow the NIPCM guidance including the assessment using the 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)."

- Page 67,

  "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".

c) I have been asked to comment on the relevance of section 6.4 of the *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams* on the operation of Chapter 3 of the NICPM.

Section 6.4 of the *Management of public health* incidents document is not relevant in the context of HAI incidents, particularly where specific national guidance is already in place. Assessing an incident within the community can often be relatively straightforward, particularly when individuals with the same pathogen reside in different geographic areas. In such cases, it is usually easy to determine that there is no clear link in terms of time, place, or person, allowing for a quick initial assessment.

However, when two or more individuals are linked to a healthcare setting, the assessment becomes more complex. In these situations, further investigation is often required to determine whether there are shared exposures, such as overlapping procedures, common environmental factors, or links in care pathways. It may also be necessary to consider background infection rates within the facility to distinguish between coincidental cases and a potential outbreak. Therefore, more time may be required to establish whether there are meaningful links within healthcare and whether the situation constitutes a potential incident. However, this should not delay the initial reporting process, which must still be carried out in accordance with the NIPCM Chapter 3,

ensuring timely escalation and appropriate oversight.

Given this context, and my response to paragraph 32 (b), I do not believe it is appropriate to selectively apply sections of the Public Health guidance while disregarding others that clearly state healthcare infection incidents should be managed in line with the NIPCM. The guidance is designed to be used holistically, and selective interpretation risks undermining the consistency and effectiveness of incident management across NHS Boards.

d) I have been asked how I would respond to the suggestion that the reference to *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams* at the start of Chapter 3 of the NIPCM would entitle NHS GGC to create an SOP which operates in the manner described by Ms Devine.

The NIPCM explicitly states:

> *"*The purpose of this chapter is to support the early recognition of potential infection incidents and to guide IPCT/HPTs in the incident management process within care settings; that is, NHSScotland, independent contractors providing NHS services, and private providers of care. This guidance is aligned to the Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS-led Incident Management Teams."

This statement is intended to assure the reader that the two documents (the NIPCM and *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams)* are aligned. It is for this reason that the Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS-led Incident Management Teams consistently references the NIPCM as the primary source of guidance for healthcare-associated infection incidents.

My answer to whether it is reasonable to use a section from the Public Health guidance simply because it is referenced in the hospital outbreak guidance is not without context. While cross-referencing the documents may be appropriate,

neither document advises nor supports the selective use of isolated sections. Both are designed to be used holistically and in alignment, particularly when managing healthcare infection incidents.

Selective interpretation or application of guidance risks undermining the consistency, clarity, and effectiveness of incident management. Therefore, any use of content from the Public Health guidance must be contextually appropriate and aligned with the overarching principles and processes outlined in the NIPCM, especially when applied within healthcare settings.

National reporting definitions and protocols ensure consistency, accuracy, and comparability of data across healthcare settings, supporting system-wide learning and improvement. If individual reporting bodies develop local protocols using a mix of guidance documents, it can lead to fragmented reporting, reduced data reliability, and missed opportunities for coordinated national responses and learning.

e) I have been asked whether I accept that response that Ms Devine has made to question 19(b) as fully addressing my concerns.

Ms Devine's response appears to place emphasis on identifying links between cases prior to conducting an assessment using the Healthcare Infection Incident Assessment Tool (HIIAT), which is the agreed national framework for assessing healthcare infection incidents.

Relying on subjective judgment to establish links before applying HIIAT may lead to underreporting or delays in reporting. This approach risks missing early signals of potential incidents and can result in a loss of valuable national intelligence, which is critical for monitoring trends, informing policy, and coordinating effective responses across NHSScotland.

The HIIAT is designed to support objective, consistent, and timely assessment, and should be applied at the earliest opportunity when a potential healthcare infection incident is suspected, not after links have been confirmed. It is an ongoing process that allows for updates and reassessment as further

intelligence becomes available.

f) I have been asked whether the number of reports by NHS GGC to ARHAI described by Ms Devine in her answer to Question 9(c) satisfies me that NHS GGC is fully complying with its reporting obligations in the NIPCM.

Having reviewed the data held by ARHAI Scotland between 01/01/2024 and 28/02/2025, NHSGGC submitted a total of 223 incidents via the ARHAI Scotland Outbreak Reporting Tool (ORT), of which 180 were on Respiratory Short Forms (minimum dataset for COVID-19, influenza or RSV) and 43 were full Healthcare Infection Incident and Outbreak Reporting Template (HIIORT) form submissions.

Of the 43 full submissions the highest HIIAT assessments recorded were:

Hospital	**Red**	**Amber**	**Green**	**Total**
Glasgow Royal Infirmary	6	0	6	12
Queen Elizabeth University Hospital	1	1	8	10
Royal Alexandra Hospital	0	4	5	9
Royal Hospital for Children	0	1	5	6
Gartnavel General Hospital	1	2	1	4
The Princess Royal Maternity Unit	0	0	1	1
Inverclyde Royal Hospital	0	1	0	1
Grand Total	8	9	26	43

The reporting of these incidents does not provide sufficient evidence to confirm either compliance or non-compliance.

33. With reference to paragraph 7 of this statement, in order to assist the Inquiry in understanding the significance or otherwise of the issue of the terms of the *NHS GGC 'Incident Management Framework SOP,* I have been asked to give an example or examples of how the operation of the SOP could result in ARHAI not becoming aware of an unusual organism and what impact that could have on the work of ARHAI and the health of the Scottish population.

If NHS Boards do not consistently follow national guidance for reporting healthcare-associated infections (HAIs), it can lead to gaps in national surveillance, delayed outbreak detection, and inconsistent risk assessments. This undermines the ability to monitor trends, share learning, and make informed policy decisions at a national level. Ultimately, it risks a loss of national intelligence, reducing the effectiveness of Scotland's overall infection prevention and control strategy.

34. I have been referred to paragraph 12 of this statement and my reference to *The NHSGGC Outbreak/Incident SOP For Outbreak/Incidents Of Communicable Or Alert Organisms In Healthcare Premises 2024* and made aware that the Inquiry only holds a 2019 version (**Bundle 43, Volume 3, Document 52, Page 1569)** 2019 NHSGGC Outbreak SOP V9 details - Objective).

a) I have been asked to produce the 2024 version if ARHAI holds it.

I accessed this document, published on 28 February 2024, ("evidence not in bundles relevant to Angela Wallace's testimony on 25.10.2024 and provided to the Inquiry") from the Scottish Hospitals Inquiry website (https://hospitalsinquiry.scot/inquiry-document/incident-management-process-framework-sop) **(Bundle 27, Volume 17, Document 28, Page 315).**

b) I have been asked whether I see any inconsistency between the terms of section 5 of the 2019 version and the statement that refers to a HIIAT assessment of green where there is no significant risk to patients or the public

and the terms of paragraph 2.1 of the *NHS GGC 'Incident Management Framework SOP'.*

Yes, there are inconsistencies between the different versions as noted below:

- Section 5 of the NHSGGC Outbreak/Incident SOP for Outbreak/Incidents of Communicable or Alert Organisms in Healthcare Premises (**A50811313 – NHS GGC – Infection Prevention & Control Team – Incident Management Process Framework – Dec 2023 - Bundle 43, Volume 3, Document 53, Page 1600**), published in October 2019, covers the initial assessment and considerations for convening a Problem Assessment Group (PAG) or Incident Management Team (IMT). This appears to align with the NIPCM Chapter 3, referencing the use of HIIAT assessment even where there is no significant risk identified.

- The updated document, NHSGGC Infection Prevention & Control Team (IPCT) Incident Management Process Framework, published February 2024 paragraph 2.1 (https://hospitalsinquiry.scot/inquiry-document/incident-management-process-framework-sop) **(Bundle 27, Volume 17, Document 28, Page 315)** advises either of two outcomes following initial assessment by a PAG:

  - "No significant risk to public health and/or patients; the PAG stood down, but surveillance continues, or

  - There are some concerns and the situation is assessed using the National Healthcare Infection Incident Assessment Tool (HIIAT) (www.nipcm.hps.scot.nhs.uk/media/2260/2022-02-07-hiiat-v20.pdf) **(Bundle 27, Volume 1, Document 67, Page 662)** and all assessments regardless of outcome must be recorded on the Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Outbreak Reporting Tool (ORT)."

This appears to suggest that no formal reporting is required unless the assessment made by the PAG determines that there are "some concerns" and

therefore does not align with the NIPCM Chapter 3.

35. With reference to paragraph 15 of this statement, I have been asked whether there is any risk that the operation of NHS GGC 'Incident Management Framework' SOP might have the effect that the board's internal reporting system might not become aware of an infection or infections that would, but for the SOP triggered an HIIAT assessment and report to ARHAI.

The NHSGGC Infection Prevention and Control Team (IPCT) Incident Management Process Framework (**Bundle 43, Volume 3, Document 53, Page 1600**), Section 3 – Reporting and Governance (page 6), indicates that only outbreaks or incidents assessed as amber or red via the HIIAT assessment are reported through formal governance structures. Based on this guidance, it appears that internal reporting mechanisms under the NHSGGC IPCT framework may only be activated for incidents meeting these higher-risk thresholds.

Therefore, it would appear that incidents of no concern (as assessed in 2.1 of the NHSGGC Framework) and HIIAT assessed green incidents will not be reported through internal governance structures**.**

Cryptococcus

36. With reference to paragraphs 20 to 31 of this statement:

a) I have been asked how Caldicot approval would operate in this context (please see The Caldicott Principles - GOV.UK and 3. Role of the Caldicott Guardian? - NHSScotland Caldicott Guardians: Principles into Practice - gov.scot).

In Scotland, when a public health body requests information from an NHS Board to support an outbreak investigation, the sharing of confidential patient information is governed by the Caldicott approval process and the Intra-NHS Scotland Information Sharing Accord (**Document – Intra NHS Scotland Information Sharing Accord 2023, Bundle 52, Volume 4, Document 10.1,**

Page 83). The Caldicott Guardian, a senior figure within each NHS organisation, ensures that any data sharing is lawful, ethical, and proportionate. Clinicians responsible for sharing data or using data outwith the primary purpose have access to a Caldicott Guardian who can support any requests and ensure the NHS Board follows the Caldicott principles and is compliant with UK GDPR and the Data Protection Act 2018.

The Intra-NHS Scotland Information Sharing Accord provides a national framework to support consistent, secure, and timely sharing of information across NHS Scotland. It outlines the responsibilities of NHS organisations when handling personal data, ensuring that sharing is compliant with data protection legislation and aligned with public interest. The Accord promotes a culture of trust and accountability, enabling NHS Boards to respond effectively to public health needs, such as outbreak investigations, while maintaining high standards of data governance. It also supports the use of standardised agreements and documentation to streamline the approval process and reduce delays in urgent public health responses.

In alignment with the Caldicott Principles, ARHAI Scotland requested only the minimum necessary data for the Cryptococcus enquiry, clearly explained the purpose and intended use of the information and ensured that all received data was stored securely in a restricted-access folder on a secure server. Access was limited exclusively to designated ARHAI Scotland staff responsible for working with the data.

In addition, the Medical Research Council (MRC) provides guidance titled ‘Research, GDPR and confidentiality – what you really need to know’ (RSC LMS: All courses), which outlines essential requirements for researchers handling personal data. All ARHAI Scotland staff involved in handling personal data have completed the 10 MRC training modules.

b) I have been asked to comment on whether a Caldicot approval process was carried out for these four cases and if so, by whom and on what date.

Caldicott assessment for releasing data is the responsibility of the NHS Board releasing the data. I am unable to answer this, and the question should be directed to NHSGGC.

c) I have been asked, in reference to paragraph 27 of this statement, whether after a further conversation between NSS and NHSGGC Medical Directors, NHSGGC did in fact provide a full data set that had not been anonymised and de-duplicated.

Yes, NHSGGC provided the information in the requested format (not anonymised or de-duplicated) on 17 December 2024.

d) With reference to paragraph 30 I have been asked when the information described was received by ARHAI.

As noted in paragraph 23 of my previous draft statement, the NHSGGC IPC team confirmed that there were 7 cases of *Cryptococcus* in patients cared for in the QEUH since 2020. A full response for 6 cases was received on 3 June 2025 with further information for one case received on 20 July 2025.

e) I have been asked whether ARHAI is now in a position to answer the three questions asked of ARHAI by Mr Urquhart on 18 November 2024 and what the answers to the questions are.

ARHAI Scotland asked NHSGGC the following three questions as requested by Mr Urquhart and received the following response from Sandra Devine on 21 November 2024 in an email entitled ‘Scottish Hospitals Inquiry: Four cases of Cryptococcus’,

Question 1 “Are you able to confirm how many cases of Cryptococcus cases have been reported since 2020?

NHS GGC IPCT has reviewed 7 cases of Cryptococcus sp. in patients cared for in QEUH since 2020

Question 2 Why were the cases (reported through the Public Inquiry) not reported to ARHAI through the ORT and [Question 3] will the Board now

report these cases?

NHS GGC responded to information request from PI team regarding the Cryptococcus sp. cases identified within a specific time period.

All cases were thoroughly reviewed by NHS GGC IPCD group and we believe that none of them fulfil the NIPCM Chapter 3 criteria for reporting.

One of the cases was reported to ARHAI in 2020.

On repeat review of the cases, we remain of the opinion they do not meet the criteria for reporting."

These responses to Mr Urquhart's original questions were shared with CNOD on 21 November 2024.

f) I have been asked if ARHAI has yet to answer Mr Urquhart's three questions, to provide an update as to why that is the case.

I can confirm that Mr Urquhart's questions have been answered.

37. I have been asked whether I believe there is evidence to at least underpin a suspicion that NHS GGC has failed to engage with national monitoring as they should have done.

I believe NHSGGC has implemented local monitoring processes that may have led to a more selective approach in reporting incidents and outbreaks to ARHAI Scotland, compared to the national guidance outlined in the NIPCM.

Declaration

38. I believe that the facts stated in this witness statement are true. I understand that this statement may form part of the evidence before the Inquiry and be published in the Inquiry's website.

The witness was provided access to the following Scottish Hospital Inquiry bundles/documents for reference when they completed their statement.

Appendix A

A49847577 – Witness Bundle - Week Commencing 2 September 2024 – Volume 3
A49882926 - Witness Bundle – Week Commencing 9 September 2024 – Volume 4
A51844565 - Hearing Commencing 19 August 2024 – Core Participants Closing Submissions
A51312578 – Glasgow III Counsel Closing Statement
A48408984 – Bundle 19 – Documents referred to in the Quantitative and Qualitative Infection Link expert reports
A50853873 – Bundle 27 – Miscellaneous Documents – Volume 17
A49968596 - Laura Imrie, Transcript
A50581675 - Sandra Devine, Transcript
A49643362 – Bundle 27 – Miscellaneous Documents – Volume 1
A53671356 - Bundle 52 - Volume 2 – Miscellaneous Documents
A53674650 – Bundle 52 – Volume 1 – Miscellaneous Documents
A50988497- Dr Sara Mumford and Ms. Linda Dempster, Transcript
A53995861 – Bundle 52 – Volume 5 – Miscellaneous Documents
A50611329 – Bundle 27 – Miscellaneous Documents – Volume 14
A52861985 – Bundle 43 – Volume 3 – Procurement, Contract, Design and Construction, Miscellaneous Documents

The witness provided the following documents to the Scottish Hospital Inquiry for reference when they completed their statement.

Appendix B

A53011856 - Bundle 52 - Volume 2 – Miscellaneous Documents
A53760710 - Bundle 52 - Volume 4 – Miscellaneous Documents
A53760706 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53760702 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761545 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761351 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761347 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761537 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53760715 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761284 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761331 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761358 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53761359 - Bundle 52 - Volume 4 – Miscellaneous Documents

A53982952 – Bundle 52 – Volume 5 – Miscellaneous Documents

Scottish Hospitals Inquiry
Witness Statement of
Julie Critchley

This statement was produced by the process of sending the witness a questionnaire with an introduction followed by a series of questions and spaces for answers. The introduction, questions and answers are produced within the statement.

Personal Details and Professional Background

1. Name, qualifications, chronological professional history, specialism etc – please provide an up-to-date CV to assist with answering this question. Please include professional background and role within NHS Scotland Assure, including dates occupied, responsibilities and persons worked with/ reporting lines.

A. I am Julie Critchley DPodM, BSc, MBA. I currently hold the post of Director to NHSScotland Assure at NHS National Services Scotland ("NSS"). I have held the post since September 2021.

My background in the NHS is clinical rather than technical. I joined NHS England as an Allied Health Professional, Podiatrist, in 1992. I then had several clinical roles before becoming a clinical manager. I then progressed to management of community services, before moving into a mental health trust, being responsible for community services and mental health services. My roles included being a Director of Operations, a Transformation Director, and an Integration Director. **(Julie Critchley – Curriculum vitae – Appendix C)**

I have worked predominantly on large-scale integration agendas across mental health, physical health and social care, with a focus on change management and the equalisation of service delivery. My roles have involved identifying how to bring services up to an appropriate level of delivery for patients and discerning how that is delivered in challenging circumstances. Prior to joining NSS, I held

the position of Head of Due Diligence and Clinical Disaggregation for the NHS improvement facilitated mandated transfer of Pennine Acute Trust into the Salford Royal Foundation Trust and the Manchester Foundation Trust. That was a transaction of approx. [redacted] million with 10,000 staff.

As Director of NHSScotland Assure, I am a member of the NSS Executive Management Team, inputting into strategic discussions and operational delivery across NSS. I have the lead for the healthcare-built environment in NHSScotland. I am also responsible for the strategic direction and operational delivery of the directorate, NHSScotland Assure. The directorate is one of a number within NSS and comprises of approximately 300 staff. The directorate is divided into several elements: Property, Sustainability and Capital Planning, Facilities Management Services ("FM Services"), Research, Engineering, NHSScotland Assure Programme Team, Antimicrobial Resistance and Healthcare Associated Infection Scotland ("ARHAI Scotland") and Fleet.

I have previously provided a witness statement to the Inquiry's Edinburgh Hearing (**Witness Statement Bundle – Volume 1, Document 10, Page 237**). This statement is provided in response to a request from the Scottish Hospitals Inquiry relative to the Glasgow IV Hearing. I have had assistance in preparing my witness statement from colleagues in NSS, Laura Imrie, Lead Consultant, ARHAI Scotland and Clinical Lead, NHSScotland Assure, Stuart Brown, Associate Director, NHSScotland Assure and Thomas Rodger, Head of Engineering, NHSScotland Assure. If specific further detail is required in these areas, I will require further assistance from subject matter specialists within NSS to respond.

Serratia Marcescens

2. In April 2021 there was an outbreak of Serratia marcescens in the Neonatal Intensive Care Unit (NICU) at the RHC. At the outset of this incident reporting was to ARHAI, were there any changes to the reporting systems upon the establishment of NHS Scotland Assure?

A. I was not in post in April 2021. Laura Imrie can describe the reporting pre and post

NHSScotland Assure being established and the requirements for reporting, as described in the National Infection Prevention and Control Manual (NIPCM). The reporting requirements and mechanism has remained consistent since the establishment of NHSScotland Assure and is detailed in Chapter 3 of the NIPCM **(Bundle 19, Document 24, Page 440).**

3. What information sharing processes were in place between the various stakeholders involved?

A. Reporting systems have been included in the NIPCM, Chapter 3, since 2016. Following a Problem Assessment Group (PAG)/ Incident Management Team (IMT) being established by the Health Board, that Health Board is required to communicate all Healthcare Infection Incident Assessment Tool (HIIAT) Green, Amber and Red assessments to ARHAI Scotland, by completing the electronic Outbreak Reporting Tool (ORT) within 24 hours of a HIIAT assessment.

The protocol for the Reporting of Healthcare Infection Incidents, Outbreaks and Data Exceedance in NHSScotland through the ORT is available within the resources section of the NIPCM.

ARHAI Scotland has developed a timeline of changes to the NIPCM from its inception. **Appendix D** details all changes made to the publication since 2012.

4. Were you aware of this outbreak when the IMT was established in April 2021?

A. I was not in post in NSS at the time that the IMT was established in April 2021. Laura Imrie has confirmed that ARHAI Scotland staff, Annette Rankin, Nurse Consultant, attended the IMT accompanied by Dr Michael Weinbren, Consultant Microbiologist, representing NHSScotland Assure. This had been set up to investigate the Serratia Marcescens outbreak in the Neonatal Intensive Care Unit (NICU) at the Royal Hospital for Children (RHC)**.** The rationale for initiating an IMT is detailed below. ARHAI Scotland staff were invited under the protocol contained within the NIPCM Chapter 3 guidance, specifically section 3.2.2 Investigation,

management and communication:

- “The Infection Preventions and Control Team (IPCT) / Health Protection Team (HPT) will establish an IMT if required.
- In the NHS hospital setting the Infection Control Doctor (ICD) will usually chair the IMT and lead the investigation of healthcare 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 Consultant in Public Health Medicine (CPHM) may chair the IMT. A draft agenda for the IMT is available.
- The membership of the IMT will vary depending on the nature of the incident.
- A healthcare infection incident investigation will usually consist of the following elements: an epidemiological investigation, a microbiological investigation and a specific investigation to identify how cases were exposed to the infectious agent (environmental investigation):
  - As part of the epidemiological investigation, a case definition(s) must be established by the IMT. A case definition should include the following: the people involved (for example, patients, staff), the symptoms/pathogen/infection (for example, with Group A Streptococci), the place (for example, care area(s) involved) and a limit of time (for example, between January and March year/date). The case definition(s) should be regularly reviewed and refined (if required) throughout the incident investigation as more information becomes available. A working hypothesis regarding the transmission route and source of the exposure must be formed based on initial investigation findings.
  - A microbiological investigation into the nature and characteristics of the implicated hazard /infective agent must be conducted.
  - Typing and whole genome sequencing can support outbreak and incident investigations. These services are available for some organisms and details of the services available should be discussed with your laboratory. Public Health Scotland continue to offer a SARS- CoV-2 whole genome sequencing service to support outbreak

investigations and address important clinical and epidemiological questions.

  - An environmental investigation must be conducted if the findings of the epidemiological investigation suggest a common exposure to a potential environmental source/environmental reservoir.
  - Review of patient cases should consider any potential missed opportunities to isolate a patient, a delay in which may have resulted in onward transmission. Any learning should be widely communicated to all clinical staff in the board.
  - An infection prevention and control assessment to review the existing infection prevention and control (IPC) practices must be conducted, so that areas for immediate improvement can be identified.

- The IMT should receive and discuss all information gathered and epidemiological outputs for example an epidemiological (epi) curve, a timeline and a ward map to:
  - determine whether additional case finding and control measures may be necessary
  - confirm that all incident control measures are being applied effectively and are sufficient
- Control measures must be directed at the source of the exposure and/or at affected persons in order to prevent secondary/further exposure to the agent. Control measures must be initiated within 24 hours of receiving the initial report and should be implemented based on relevant guidance (for example pathogen specific) and investigation findings of the nature of the outbreak.
- A follow-up period may be defined after an infection incident/outbreak has ended to ensure its termination, including assessment of any ongoing control measures and would be determined by the PAG/IMT.
- Identify any change(s) in the system: staffing, procedures/processing, equipment, suppliers. A step-by-step review of procedure(s). An outbreak checklist is available.
- Identify and count all cases and/or persons exposed: this includes the total number of confirmed/probable/possible exposed cases. An incident/outbreak data

collection tool is available."

5. At the IMT of 24 May 2021 Dr Michael Weinbren attended as a representative of NHS Scotland Assure. What was Dr Weinbren's role at these IMTs?

A. Dr Michael Weinbren attended the IMT in his capacity as a Consultant Microbiologist providing microbiology expertise and support alongside Annette Rankin, Nurse Consultant. A Nurse Consultant typically attends Health Board IMT meetings on behalf of ARHAI Scotland. Additional support from other disciplines within ARHAI Scotland/ NHSScotland Assure can be requested as needed. In this case Dr Weinbren, Consultant Microbiologist, NHSScotland Assure, also attended the IMT.

6. Did he report to you or to NHS Scotland Assure in respect of this outbreak outside of the reporting systems agreed within the IMT i.e. the online reporting tool?

A. The NHSScotland Assure Clinical Team, including Dr Michael Weinbren, reported and escalated any issues to Laura Imrie as Lead Consultant. Laura Imrie has a direct reporting line and escalation route to me as NHSScotland Assure Director. At this point, before I was in post, any concerns would have been escalated through the governance processes in place at the time. Prior to my appointment this would have been to Gordon James, Director of PCF NSS at the time.

7. The actions from the IMTs mention reporting to the Policy Unit in respect of the HIIAT. What is the Policy Unit and to whom were these reports provided and for what purpose?

A. The 'Policy Unit' refers to the Chief Nursing Officer Directorate (CNOD) Healthcare Associated Infection (HAI) Policy Unit. Reports are generated by a Health Board, reviewed, and then communicated by ARHAI Scotland to the CNOD HAI Policy Unit in accordance with reporting requirements for Health Boards in Chapter 3 of the NIPCM as described in Paragraph 7.

As Chapter 3 of the NIPCM states, "definitions of a healthcare incident, outbreak or data exceedance are included in Chapter 3 of the National Infection Prevention and Control Manual (NIPCM). It is the responsibility of Health Boards to ensure incidents, outbreaks and data exceedances are reported to ARHAI Scotland in line with the protocol, the Healthcare Infection Incident Assessment Tool (HIIAT)

and the NICPM. Following the identification of an incident/outbreak according to the NIPCM, a HIIAT assessment (Red, Amber or Green) should be performed, and the incident/outbreak should be reported to ARHAI Scotland through the Outbreak Reporting Tool (ORT), using the corresponding form for that incident/outbreak type". (**Bundle 19, Document 24, Page 440)**

ARHAI Scotland send such reports referred to in paragraph 14 above, to the CNOD HAI Policy Unit as per the guidance contained within **Bundle 52, Volume 2, Document 6, Page 69** and **Bundle 27, Volume 4, Document 16, Page 165.**

Scottish Government oversight:

- ARHAI Scotland notify the Scottish Government HCAI/Antimicrobial Resistance (AMR) Policy Unit of all Red and Amber assessed incidents/ outbreaks and Green assessed incidents/outbreaks where ARHAI Scotland support has been requested.
- The HCAI/AMR Policy Unit, which includes professional advisers, review each incident reported to the Scottish Government. Depending on a range of factors including the ongoing risk to patients, the type of pathogen and the nature of the incident, a briefing is provided to the CNO, and/or other relevant Scottish Government Directors and Ministers.
- The national systems and processes that the Scottish Government has in place relating to HCAI are there to support Health Boards in their role to deliver high quality safe care to local populations.

I am aware from discussions with NHSScotland Assure staff that, historically, the Scottish Government's supervision of incident and outbreak reporting could be dependent on the level of information and assurance required by the individual Cabinet Secretary for Health in post at that time. The level of support and oversight that the Scottish Government requires ARHAI Scotland to provide to Health Boards for individual incidents could also be dependent on the CNO in post.

8. Did you or NHS Scotland Assure have access to the reports provided to the Policy Unit?

A. Yes, NHSScotland Assure/ ARHAI Scotland is responsible for sending incident reports to the CNOD HAI Policy Unit and has full access to all reports sent to the Policy Unit.

9. What do you understand to be the operational purpose of sending incident reports to the CNOD HAI Policy Unit?

A. To fully answer this question, I believe it is important to provide the Inquiry with background information regarding the evolution of NHSScotland HAI infection incident assessment and reporting.

In November 2000 the Scottish Government set up a Joint Scottish Executive Health Department & NHSScotland Working Group. The Working Group published 'Managing the risk of Healthcare Associated Infection in NHS Scotland' in April 2001 (**Bundle 52 Volume 5, Document 1, Page 5).**

The key recommendations from this report were:

- Adoption of National Standards for Infection Prevention & Control, Decontamination of Reusable Medical Devices and Cleaning Services.
- Integration of HAI Risk Management into existing clinical risk management structures and processes.
- Strengthening Accountability and Governance, emphasising the need for clear accountability at all organisational levels. Defining responsibilities for infection prevention and control, ensuring that leadership is actively engaged in HAI risk management, and that there is a structured governance framework to oversee these efforts.
- Enhancement of surveillance and reporting, including the implementation of robust surveillance systems to monitor HAI effectively.
- Staff education and training, highlighting the importance of comprehensive IPC education and training programmes.

Following the outbreak of *Salmonella* species in the Victoria Infirmary, Glasgow, a group under the chairmanship of Dr Brian Watt was set up by the Scottish Executive to review the outbreak, with a remit to:

a) “Review the circumstances surrounding the onset of the outbreak of salmonella infection at the Victoria Infirmary, Glasgow, in December 2001 and January 2002 and identify the likely causal factors;

b) Assess the management of the outbreak and its effectiveness in reducing further exposure to the organism involved;

c) Assess how the NHS Trust managed the overall situation, including communications with other relevant organisations and the public; and

d) Draw conclusions and make recommendations to help reduce the risks of future outbreaks of infections of this kind in hospitals and help improve both outbreak and overall management.”

Between December 2001 and January 2002 the group produced ‘The Watt Group Report: A review of the outbreak of salmonella at the Victoria Infirmary, Glasgow, and lessons that may be learned by both the Victoria Infirmary and the wider NHS family in Scotland’ which included 47 recommendations (**Bundle 52, Volume 1, Document 32, Page 352**).

Some of the key recommendations relating to assessment and external reporting of healthcare associated were:

- Recommendation 30

a. That a classification system for infection outbreaks/episodes be drawn up and used by all key players as "common currency" in deciding the actions and communications required in a given infection incident (A framework (Infection Control Risk Matrix) is set out in detail in Appendix E) and that clear policies are developed, using this system, which identify all the key individuals involved in communications about outbreaks of different severity.

- Recommendation 33

a. That the Chief Executive of a Trust or Health Board (depending on whether the outbreak is primarily in the hospital or community respectively) should assume the unambiguous responsibility for ensuring effective internal and external communications, including the media, appropriate Government Departments and Agencies.

b. That within the SEHD consideration should be given to the nomination of an issue manager as soon as a serious outbreak occurs and irrespective of the route through which notification has come. Clear guidelines should also be in place on which Division/Unit within the SEHD should be responsible for actions and briefing associated with an outbreak.

Thereafter the profile of prevention and control of HAIs was transformed within a few years. Significant milestones include:

- The NHS Quality Improvement Scotland (NHS QIS)/Clinical Standards Board for Scotland (CSBS) HAI Infection Control Standards (December 2001) and Cleaning Services Standards (June 2002);
- The Ministerial HAI Action Plan "Preventing infections acquired while receiving healthcare" (October 2002);
- The Audit Scotland review of cleaning services and the NHSQIS review of HAI infection control standards (both published January 2003);
- The "Champions" educational initiative (April 2002);
- Infection Control: Organisational Issues **(Bundle 13, Volume 7, Document 1, Page 6**); and
- Healthcare Associated Infection (Hai) - Reporting Of Incidents and Outbreaks and Norovirus Guidance (**HDL (2009**)

In 2009 The Rt Hon Lord MacLean was appointed to chair The Vale of Leven Public Inquiry which reported its findings in 2014 in The Vale of Leven Hospital Inquiry Report (**Bundle 51, Document 2, Page 214).**

- Recommendation 46

a. Health Boards should ensure that the Infection Control Manager has direct responsibility for the infection prevention and control service and its staff.

- Recommendation 49

a. Scottish Government should re-issue national guidance on the role of the Infection Control Manager, stipulating that the Infection Control Manager must be

responsible for the management of the infection prevention and control service.

 Recommendation 53

a. Health Boards should ensure that surveillance systems are fit for purpose, are simple to use and monitor, and provide information on potential outbreaks in real time.

 Recommendation 54

a. Health Boards should ensure that the users of surveillance systems are properly trained in their use and fully aware of how to use and respond to the data available.

Over the past 25 years, policy and guidance relating to reporting of HCAI incidents and risks across NHSScotland has been shaped by several external reviews. This includes the Vale of Leven Public Inquiry which has included the monitoring and reporting of HAIs. The recommendations from these reviews, along with evidence-based guidance and international standards for HCAI reduction, have informed the development of current processes that enable national oversight of HCAI incidents. These processes also ensure that the Scottish Government is appropriately informed, allowing it to respond effectively to emerging issues.

10. Is there a system where requests for additional information, directives or instruction can be passed back from the CNOD HAI Policy Unit and/or Cabinet Secretary for Health through NHSScotland Assure/ ARHAI Scotland to the health board that initiated a particular HAI incident report?

A. Requests for additional information following a HCAI incident can come from the Scottish Government either as part of the ongoing communication around the incident or as a separate request. This process is highlighted within **DL (2024) 24** (**Bundle 52, Volume 2, Document 6, Page 69)** and describes Scottish Government oversight:

- ARHAI Scotland notify the Scottish Government HCAI/Antimicrobial Resistance (AMR) Policy Unit of all Red and Amber assessed incidents/outbreaks and Green assessed incidents/outbreaks where ARHAI

Scotland support has been requested.

- The HCAI/AMR Policy Unit – which includes Professional Advisers - review each incident reported to the Scottish Government. Depending on a range of factors including the ongoing risk to patients, the type of pathogen and the nature of the incident - will provide briefing to the Chief Nursing Officer, and/or other relevant Scottish Government Directors and Ministers.

The reporting Health Board is copied into the email to CNOD alerting them of the incident which enables transparency around the type and scale of outbreaks across all NHSScotland Health Boards.

11. How does this reporting process ensure effective processes for open and collaborative information sharing between all stakeholders?

A. Health Board reporting of incidents is included in onward communications from ARHAI Scotland to the CNOD HAI Policy Unit. This communication provides a direct line between the Health Boards, ARHAI Scotland and the CNOD HAI Policy Unit, which enables transparency around the type and scale of outbreaks across all NHSScotland Health Boards.

Refurbishment of Wards 2A and 2B 2021/2022

12. The Inquiry understands that NHS Scotland Assure were involved with the refurbishment work of wards 2A and 2B at the RHC in 2021 and 2022. What were the circumstances under which NHS Scotland Assure became involved in the refurbishment of wards 2A/B?

A. The Scottish Government set up an Advice and Review Group (chaired by the CNO) in June 2021 to oversee the delivery of NHS Greater Glasgow and Clyde's (NHSGGC) programme to implement and evidence the 108 recommendations outlined in the Independent Review, Oversight Board Report and Case Note Review.

ARHAI Scotland has a close working relationship with the CNOD HAI Policy Unit which routinely requests additional work to be considered by NHSScotland

Assure/ ARHAI Scotland.

In June 2021, NHSGGC approached the NHSScotland Assure engineering team Senior Engineer (water) to request support for the ongoing refurbishment project in Wards 2A and 2B. The scope of support was outlined in a Terms of Reference (TOR) agreed between NHSScotland Assure and the NHSGGC Project Manager (**Bundle 52, Volume 2, Document 7, Page 72**) and was limited to the domestic water installation only. The expectation was that NHSGGC would explicitly ask NHSScotland Assure if their attendance at these internal meetings was required. A summary of the duties for GGC as described in the TOR was as follows:

- "Attend fortnightly progress meetings on a Tuesday (via MS Teams) when available. Copies of minutes to be made available via email to NHSScotland Assure.
- Attend fortnightly technical meetings on the alternate Tuesdays (via MS Teams) when available. Copies of minutes to be made available via email to NHSScotland Assure.
- Attend weekly testing and commissioning meetings on a Wednesday (via MS Teams) when available. Copies of minutes, commissioning certificates and microbiological results to be made available via email to NHSScotland Assure.
- Site inspection visits when available. The aim will be to attend weekly subject to other commitments."

13. Can you please produce the email or letter of June 2021 in which NHS GGC approached NHSScotland Assure engineering team Senior Engineer (water to request support for the ongoing refurbishment project in Wards 2A and 2B.

A. The email at **Bundle 52, Volume5, Document 15, Page 79** –has been provided to the Inquiry. As far as I am aware, this appears to be the first request of HPS from NHSGGC.

NHS Scotland Assure did not participate in any of the aforementioned meetings when this commission went live. As per the TOR, NHSGGC did not explicitly ask NHSScotland Assure to participate; our resource was intended to be ad-hoc at

these meetings, subject to resource availability. NHSScotland Assure worked on the understanding that if required to attend then a formal request would be forthcoming from NHSGGC. Whilst not referenced specifically in the TOR, this was essentially a working agreement between the NHSScotland Assure Senior Engineer and the NHS GG&C Project Manager.

14. Please explain, in detail, why NHSScotland Assure did not participate in any of the meetings described in the TOR for Support by HFS?

A. NHSGGC had in place its own technical advisory team in the form of [redacted]. At the time the TORs were created, [redacted] supporting NHSGGC in the provision of the technical advisory services, Richard Beattie, was in the process of joining NHSScotland Assure. NSS understand that colleagues within NHSGGC were keen to maintain access to Mr. Beattie's technical knowledge on the project when he joined NSS and that the TORs were effectively established to ensure that, if required, Mr. Beattie would be able to attend the meetings. I have spoken with the Engineering team within NHSScotland Assure who have noted that as the commission commenced, the team does not recall being asked to attend the meetings by NHSGGC, as they understood that [redacted] continued to provide technical support to the health board.

The scope of the work delivered was therefore limited to a number of site walk rounds undertaken by the Senior Engineer (water), with site observations shared via email with the NHSGGC Project Manager **(Bundle 52, Volume 2, Document 8, Page 73; Document 9, Page 82; Document 10, Page 93 and Bundle 52 Volume 5, Document 16, Page 82).**

Under this commission NHSScotland Assure did not undertake any final "sign off" site inspections or review handover documentation (for example, water testing results). The meetings under this commission continued with limited input from NHSScotland Assure until February 2022.

On 17 February 2022 the CNO asked Mary Morgan, Chief Executive, NSS, and me to join the CNO commissioned Advice and Review Group. NHSScotland

Assure was specifically asked to support NHSGGC with its ongoing issues with the water system in relation to the reopening of Wards 2A and 2B.

15. Can you please produce the email or letter of 17 February 2022 where the CNO asked Mary Morgan, Chief Executive, NSS and Ms. Critchley to join the CNO commissioned Advice and Review Group.

A. The email entitled 'QEUH' sent by the CMO on 18 February 2022 (**Bundle 52, Volume 5, Document 17, Page 84**) notes the meeting between the CMO, Mary Morgan and myself as well as the required

NHSScotland Assure input to this process.

The support request from the CNO was formalised through the CNOD Advice and Review group on 17 February 2022 and became the basis of the supported pathway to reopening for Wards 2A and 2B.

16. Why did NHSScotland Assure not have an input in the Ventilation installation for the ongoing refurbishment project in Wards 2A and 2B? If, as seems to be the case, NHSScotland Assure was not asked to assist in respect of ventilation what steps did NHSScotland Assure take to inquire why NHS GGC did not appear to want assistance from them?

A. As noted in paragraph 26, the request for support from the CNO was specifically in relation to water safety. In the absence of any further request for support, NHSScotland Assure had no mandate to be involved in the ventilation installation and there was no formal mechanism for us to explore why NHSGGC did not ask for us support on other matters.

17. To what extent did NHSScotland Assure report its noninvolvement in the ventilation aspects of the refurbishment of wards 2A and B to the CNO or Scottish Ministers?

A. Please refer to my response to Question C6. Our commission from the CNO was for NHSScotland Assure support related to NHSGGC water systems only and therefore there was no reporting mechanism in place for the ventilation systems to report as there is no 'non-involvement reporting mechanism' in place.

18. What was the extent of NHS Scotland Assure's role in the refurbishment?

A. As noted in paragraph 27, in February 2022, the CNOD HAI Policy Unit asked NHSScotland Assure to formally support NHSGGC in ensuring any water issues had been mitigated to support the reopening of Wards 2A and 2B. This support would take the form of NHSScotland Assure producing a pathway to both the reopening of Wards 2A and 2B and NHSGGC providing evidence to show compliance and mitigate any outstanding risks within the water system. This pathway broadly followed the principles set out in the Key Stage Assurance Review (KSAR) process **(Bundle 52, Volume 2, Document 11, Page 103).**

19. What support did they offer?

A. Following the request from the CNOD HAI Policy Unit, I requested that appropriate colleagues from NHSScotland Assure (Ian Storrar, Associate Director, Engineering and Assurance, Annette Rankin, ARHAI Scotland Nurse Consultant and Michael Weinbren, Consultant Microbiologist and an external expert Dr Suzanne Lee, Independent Consultant Microbiologist) provide input and expertise to the review of the water component of the completed refurbishment of Wards 2A and 2B. As noted in paragraph 28, the pathway document had a methodology not unlike a KSAR process. A subject matter expert (SME) from NHSScotland Assure reviewed the NHSGGC evidence around risk mitigation and provided feedback on progress. This process supported NHSGGC to make the decision to re-occupy Wards 2A and 2B and decant patients from Ward 6A.

20. What connection is there between the validation processes for new or refurbished ventilation systems envisaged by SHTM 03-01 and the work of NHS Scotland Assure? Does NHS Assure expect to be shown independent ventilation validation reports for new and refurbished facilities that fall within its remit?

A. There are a number of scenarios where NHSScotland Assure might be involved in a project at the commissioning/validation/handover stage of a project, including KSARs, Authorising Engineer (AE) services or through a Health Board commission for support. Our involvement in all of these scenarios would be either to seek assurance (in the context of the KSAR) or in an advisory capacity (in the context of AE or a Health Board commission).

NHSScotland Assure would not actually undertake validation of the ventilation systems (this would be undertaken by a specialist third party organisation, typically appointed by the Health Board), rather we would review the results and assess how the Health Board had considered them to ensure appropriate functionality of the respective ventilation systems.

NHSScotland Assure would expect and recommend that independent validation of all new ventilation systems installed as part of new build/refurbishment projects are in accordance with SHTM 03-01 Part A 2022, including the requirements of Chapter 12 'Acceptance Testing – Validation'.

21. What connection is there between the pre-occupation L8 and Pseudomonas risk assessments required by L8, HS 274 and SHTM 04-01 and the work of NHS Scotland Assure? Does NHS Assure expect to be show such reports for new and refurbished facilities that fall within its remit?

A. NHSScotland Assure note that the **Health and Safety Executive Legionnaires Disease HSG274** relates to legionella and not pseudomonas. Pseudomonas risk assessments would typically be covered under **BS8580-2 2022**. (This part of BS8580 is published by BSI Standards Limited, under license from The British Standards Institution). Health Boards would typically be expected to undertake a pseudomonas risk assessment for high risk and augmented care facilities.

The responsibility for undertaking appropriate risk assessments and pre-occupation assessments in accordance with the aforementioned guidance and standards remains the responsibility of the Health Board. NHSScotland Assure would seek assurance through a KSAR or AE audit (in the event we were appointed as AE) that such assessments had been completed by the Health Board.

22. With whom did they communicate within the RHC in respect of the refurbishment works?

A. I primarily communicated with Professor Tom Steele, Director of Estates NHSGGC, and Professor Angela Wallace, Senior Executive Nurse Director, NHSGGC. My colleagues from NHSScotland Assure have informed me that the

majority of their communications were with Professor Tom Steele, Sandra Devine, Acting Infection Control Manager, NHSGGC, Gerry Cox, Assistant Director Estates and Property, and James Huddleston, Project Manager, NHSGGC.

23. What risk assessments, testing and monitoring were carried out throughout the refurbishments and in advance of the ward reopening?

A. I am unclear on any specifics related to risk assessments, testing and monitoring that were carried out throughout the refurbishments, as NHSScotland Assure had limited input during this process. My colleagues from NHSScotland Assure who were involved in this work advise me that they do not have any recollection of reviewing any final water testing or handover materials relating to the Wards 2A and 2B refurbishment. This was part of the pathway work that was to be monitored through NHSGGC. NHSScotland Assure commenced the pathway work between 20 and 22 February 2022.

Our initial suggested way forward, when first approached by NHSGGC, was to establish a short life working group (SLWG) to explore and discuss relevant details, including testing undertaken and results, and undertake a walk round of the refurbished wards. NHSGGC declined this offer due to the length of time this would take. There was a very limited amount of time before NHSGGC wished the wards to be occupied by patients, so the pathway methodology was settled on to provide the best way to ascertain progress towards reopening **(Bundle 52, Volume 2, Document 11, Page 103).**

24. What connection is there between the work done by Authorising Engineers (Water) and Authorising Engineers (Ventilation) in auditing compliance of water and ventilation systems with relevant regulations, guidelines and good practice and the work of NHS Scotland Assure in respect of new and refurbished facilities that fall within its remit?

A. **SHTM 03-01** Part B 2022 Clause 2.8 defines the role of the AE (Ventilation) as: "The AE(V) is defined as a person designated by Management to provide independent auditing and advice on ventilation systems, to review documentation on verification and validation and witness the process as necessary."

SHTM 04-01 Part B 2014 Clause 6.15 defines the role of the AE (Water) as:

*"*An Authorising Engineer (Water) acts as an independent professional advisor to the NHS Board, appointed by the organisation with a brief to provide services in accordance with SHTM guidance.

The AE (Water) acts as an assessor, making recommendations on Duty Holders and for the appointment of Designated Persons, Authorised Persons and Competent Persons, monitoring the performance of the service and providing an annual audit to the Health Board's Designated Person."

AEs may support Health Boards at the point of commissioning/handover of new build/refurbishment projects to support the assessment of compliance. They will also undertake audits of facilities to assess the respective management of ventilation/water systems and make recommendations to the Health Board.

Audits will typically consider the management and organisational structure of the Health Board relative to each of the systems to assess whether appropriate roles are identified and occupied by suitably competent persons. The audit will also consider how systems are being managed and maintained, including a review of records held by the Health Board. Upon completion of the audit, the AE will make recommendations to the Health Board and the Health Board will be expected to create an action plan to demonstrate how it will resolve any findings/actions.

NHSScotland Assure provide AE services to various Health Boards (this service commenced in November 2023). This is not a mandated service.

Health Boards can use AEs out with the service offered by NHSScotland Assure at its discretion and define the scope of services required by the Health Board, which may be in addition to the minimum recommendations of SHTM 03-01 and SHTM 04-01. In the context of new build/refurbishment projects, it does not necessarily need to be an AE that fulfills this function – it could also be fulfilled by a suitably competent subject matter expert in the role of a Technical Advisor.

It is important to note that the function of the AE (or Technical Advisor) is different to the function of the KSAR. Whilst both will ultimately consider elements of

compliance, there will be subtle differences in how the respective parties (i.e. the AE and the KSAR review team) will assess this.

The KSAR will assess a Health Board's overall approach to compliance, including the structure of the technical team and whether they have an AE in place (and/or other technical advisory support). The KSAR will also consider a sample overview of the commissioning/validation results and seek assurance that they have been reviewed on behalf of the Health Board by a suitably competent technical person (which may include the AE).

The AE on the other hand will be expected to review a much wider selection of results and provide advice directly to the Health Board as to whether findings are acceptable or may require further works.

25. What assurances did they seek and from whom in respect of the ward environment to ensure patient safety?

A. While NHSScotland Assure was able to support NHSGGC in the reopening of Wards 2A and 2B in relation to water safety, by developing the pathway, we could not offer assurance in respect of the wider ward environment due to the tight timeframes and NHSScotland Assure's lack of detailed involvement in the refurbishment work of those wards. The water pathway methodology outlined key questions that allowed evidence to be reviewed during a short period of time, so helping the Health Board to provide assurance in relation to water safety. The pathway document covered several key areas including (but not limited to):

- Whether risk assessments were in place.
- Whether appropriate water management procedures were in place, for example flushing and cleaning regimes.
- Water sampling methodology and results.
- Whether appropriate engagement with the Water Safety Group was in place.

26. Did NHS Scotland Assure offer to inspect the refurbished Schiehallion Unit before it opened again in 2022?

A. My colleagues from NHSScotland Assure involved in this work, as noted in

paragraph 32, suggested the establishment of a SLWG to explore and discuss relevant details, including testing undertaken and results, and a site walk round the refurbished wards. NHSGGC declined this offer due to the length of time this would take and the short timescale for this work to take place.

27. If so, what form did the offer take and who was it directed to?

A. A verbal offer was made when we were initially discussing a methodology around gaining assurance of water risk mitigation for Wards 2A and 2B prior to reopening. The final methodology agreed was the pathway provision based on the KSAR principles. The timescale between the ask from CNOD and delivery of the pathway was from 17 February 2022 to 24 February 2022.

28. When was this verbal offer made and by whom?

A. The offer was made by Ian Storrar and Annette Rankin. In an email dated 21 January 2022 entitled 'RE: wards 2a/b RHC' from Annette Rankin to Tom Steele and Sandra Devine (**Bundle 14, Volume 3, Document 241, Page 350**), both NHSGGC, Annette Rankin stated that:

"ARHAI/HFS are offering NHSGGC to establish a SLWG facilitated by ARHAI/HFS which includes microbiology, clinical and scientific input to work with NHSGGC and review the work undertaken, results being obtained, risk mitigations in place in an attempt to support NHSGGCs repatriation of children back to wards 2a/b. If this request is accepted by NHSGGC, timescales, terms of reference and membership will be established. Would it be possible to advise us if you wish to work with ARHAI?HFS in this manner by 28th January 2022".

29. What was the response and what reasoning was given for refusing the offer?

A. NHSGGC noted that its rationale for declining the establishment of a SLWG and NHSScotland Assure input to a walk round within the refurbished Wards 2A and 2B was the time that this process would take.

30. Question for the witness: To what extent did NHSScotland Assure report that NHS GGC had declined to work with NHSScotland Assure on testing and results and a site walk round the refurbished Wards 2A and 2B to the CNO or Scottish Ministers?

A. NHSGGC declining the establishment of a SLWG was not raised formally with NHSGGC as it was superseded by the commission from CNOD for NHSScotland Assure to become involved in reviewing the water system within wards 2A and 2B.

31. Were you and NHS Scotland Assure as a body concerned that the offer had been declined given the issues that had led to the refurbishment being necessary?

A. NHSScotland Assure staff supporting this work (Ian Storrar, Associate Director, Engineering and Assurance, Annette Rankin, ARHAI Scotland Nurse Consultant and Michael Weinbren, Consultant Microbiologist) and reviewing the data and reports were concerned that they may be asked to comment on the overall ward safety and would not be able to do so as they had not received all the data from NHSGGC to allow them to comment on the safety of the ward as a whole. The NHSScotland Assure team was not able to offer any assurances on the overall refurbishment of Wards 2A and 2B as CNOD had asked the team to specifically look at water safety. The team did agree to produce a suggested pathway for water compliance for NHSGGC to implement and provide evidence, as noted in paragraph 32, which would support NHSGGC to understand their risks and mitigate them when making the decision to re-occupy Wards 2A and 2B and decant patients from Ward 6A. Ultimately, NHSGGC would provide the assurance as outlined in the pathway document. NHSScotland Assure did not review any further information or actions following the reopening of Wards 2A and 2B. Compliance with the actions plan was for NHSGGC to monitor through their own governance mechanisms.

32. Question for witness: Do any written records, reports, emails or minutes record the concern by these staff that they had not received all the data from NHS GGC to allow them to comment on the safety of the wards as a whole?

A. The staff involved in this work had been asked by myself, after instruction from CNOD, to look specifically at water safety. As that was NHSScotland Assure's given remit during this period of time there was no review of any further system within the wards 2A and 2B. Therefore, because I nor the NHSScotland Assure team had received information or documentation from NHSGGC relating to other systems within the wards we would not, at that time or now, be able to comment if

there were any concerns. As noted in paragraph 36, the NHSScotland Assure team were concerned that they may be asked to comment on the overall ward safety and would be unable to do so because of a lack of commission for or knowledge of such systems. Therefore, these is no documentation around any other system than water. (**Bundle 21, Volume 2, Document 2, Page 15).**

33. Do you believe that it should be mandatory for health boards to get new construction or refurbishment approved by NHS Scotland Assure?

A. It is currently mandatory for Health Boards to engage with NHSScotland Assure assessment processes (primarily the NHSScotland Design Assessment Process (NDAP) and the KSAR) for new construction and refurbishment processes above a Health Boards' delegated authority financial limit. These gateway processes do not provide 'approval' of projects. Rather, they support, through our governance route to the Scottish Government's Capital Investment Group, allows Health Boards to proceed to the next stage **(Bundle 15, Document 2(ii), Page 17; Bundle 3, Volume 3, Document 77, Page 893; Bundle 52, Volume 2, Document 13, Page 142; Bundle 52, Volume 2, Document 24, Page 377; Bundle 52, Volume 2, Document 14, Page 180)**.

34. What, in practical terms, does "engage" mean in this context?

A. In this context, "engage" means that Health Boards participate in and follow the assessment and assurance processes (NDAP & KSAR), which include attendance at meetings and workshops, submission of information and responses to recommendation or actions emerging from the process reporting.

NSS has previously provided the Inquiry with information in relation to the NDAP and KSAR process.

35. Do you consider that the 'engagement' of NHS GGC with NHSScotland Assure assessment processes in respect of the water and ventilation system of the refurbishment of Wards 2A and 2B meets the mandatory standard referred to in paragraph 38?

A. As noted in paragraph 27, the agreed commission followed a pathway broadly underpinned by the principles set out in the Key Stage Assurance Review (KSAR)

process. Whilst there were some similarities to the processes a “full” KSAR process would require, it was done over an accelerated period of time and thus was not possible to engage with the NHS board in the way NHSScotland Assure would typically through the course of a projects lifecycle. An NDAP and KSAR involves multiple touch points, often over several months, to support NHS Boards to develop a supporting portfolio of documents and evidence to demonstrate assurance. In the case of Ward 2A and 2B, due to the time pressures associated with the project, NHSGGC provide information to NHSScotland Assure team to demonstrate they had met the requirements of the final pathway document.

36. In respect of the hospital project in Aberdeen, the Inquiry understands that derogations from the SHTM guidance were sought and the KSAR process was implemented. What was the outcome of this process and what is your view on the effectiveness of this process?

A. NHSScotland Assure has undertaken KSARs on the Baird Family Hospital (Construction Stage KSAR) and the ANCHOR Centre (Construction Stage KSAR). Both these KSARs identified observations in relation to how the Health Board had recorded derogations, how it had considered risks and mitigations and how it had recorded sign-off/approvals from key stakeholders. In response NHS Grampian has developed an action plan to address the recommendations of NHSScotland Assure and has implemented a dedicated workstream within its project team to update the project derogations list. This ensures that all risks and mitigations are clearly identified and that key stakeholder review/approvals are documented. NHSScotland Assure continue to work closely with the Health Board as the projects move toward the Commissioning Stage KSAR and acknowledge the positive steps taken by NHS Grampian to review and revise the processes they are implementing.

NHSScotland Assure has also reflected on this learning and will look to capture key feedback as part of the forthcoming “Once for Scotland” derogations process, including guidance on how risks and mitigations are considered and how approvals are captured.

NHSScotland Assure has commenced work on the "Once for Scotland"

derogation standard process, with the drafting process expected to continue into late summer 2025. Thereafter the document will go to NHSScotland and other devolved administration colleagues for consultation prior to publication later in winter 2025.

Reporting through ARHAI Scotland for infections/ outbreaks is also recommended for Health Boards via the mechanism outlined in the NIPCM, Chapter 3. There is provision for Health Boards to derogate from the NIPCM. If Health Boards do derogate, the Scottish Government expects that Health Boards continue to ensure safe systems of work through the completion of a risk assessment and escalation, approved and documented through local governance procedures. Therefore, reporting in this way is not mandated.

37. If not, what is the purpose of NHS Scotland Assure and where should the public look for reassurance that health facilities are fit for purpose?

A. NHSScotland Assure has a very good working relationship with Health Boards and operates on a collaborative model of provision with all stakeholders. Our advice and expertise are openly available to all Health Boards whether they are undergoing a large new build, or they require advice on refurbishment or ongoing estate or IPC issues. Our support to Health Boards and their seeking and acceptance of that support provide reassurance that NHSScotland takes the safety and resilience of the health care environment seriously, as a key part of health care provision. The development of NHSScotland Assure into a responsive, knowledgeable resource that supports excellence in the health care environment should also provide reassurance that safety and appropriate patient environment is at the heart of NHSScotland provision.

As noted above, it is mandatory for Health Boards to engage with NHSScotland Assure when undertaking major capital build and refurbishment projects. NHSScotland Assure has the ability, where appropriate, to withhold support, which can impact funding and the opening of projects. NHSScotland Assure is not an inspectorate, however the governance mechanisms in place through the Scottish Government allow the key compliance oversight function for all new build projects and major refurbishments to be delivered. **Bundle 15, Document 2(ii),**

Page 17), Bundle 4, Document 10, Page 144; DL (2021) 14 (Bundle 52, Volume 2, Document 24, Page 377); and Bundle 52, Volume 2, Document 14, Page 180 all detail mandated requirements for Health Boards to engage with NHSScotland Assure requirements including NDAP and KSAR processes. **DL (2023) 03 (Bundle 52, Volume 2, Document 14, Page 180)** further states that:

"All building projects going through a KSAR, should not open to patients or the public until you receive a 'supported status' from NHSScotland Assure. This authority allows us to ensure that healthcare facilities are assessed and provide assurance on stringent safety and quality standards before they become operational. Whilst our primary role is to provide support and guidance to Boards and we are not a public facing service, our mandate to assess and seek assurance on compliance with standards means if necessary, and facilitated through Scottish Government governance, we can effectively raise concerns on projects that do not meet the required criteria which should provide reassurance to the public."

38. Has NHSScotland Assure ever withheld support from a project and how would withholding such support impact funding and the opening of projects?

A. NHSScotland Assure has, in the past, reported an 'unsupported' status for projects at specific stages of their development. This status is reported to the Capital Investment Group and is used to inform the group's decision making to allow, or not, a project to progress to the next stage. It is at the discretion of the group to determine whether matters can be dealt with in the subsequent stage, or the project should be developed until it secures a supported status for its current funding stage.

(Bundle 52, Volume 2, Document 24, Page 377) and **(Bundle 52, Volume 2, Document 14, Page 180)** issued by Scottish Government outline the requirement for Health Boards to achieve a supported KSAR status before being allowed to progress to the next stage or opening.

(Bundle 52, Volume 2, Document 24, Page 377): "From the 1 June 2021, all NHS Board projects that require review and approval from the NHS Capital Investment Group (CIG), will need to engage with NHS Scotland Assure to

undertake key stage assurance reviews (KSARs). Approval from the CIG will only follow once the KSAR has been satisfactorily completed."

(Bundle 52, Volume 2, Document 14, Page 180): "This DL covers the commissioning, completion, and handover part of the process and notifies you that all building projects going through a KSAR, should not open to patients or the public until you receive a 'supported status' from NHS Scotland Assure."

These mandated processes, however, do not currently cover all services or areas of subject matter expertise within NHSScotland Assure.

ARHAI Scotland has guidance for reporting in the NIPCM Chapter 3, but this is not mandated for Health Boards. **DL (2024) 01 (Bundle 52, Volume 2, Document 18, Page 189)** reiterated adherence to the NIPCM but also gave some caveats:

- "A recognition that during times of increased service pressure Health Boards may adopt practices that differ from those stated in the NIPCM.
- Health Boards can do this, but it has a responsibility to ensure safe systems of work including risk assessment.
- Any decision to derogate should be considered and approved in line with the local Health Board governance arrangements and must be frequently reviewed within those structures."

39. Is NHSScotland Assure aware of NHS GGC ever reporting that it has derogated from practices stated in the NICPM either to NHS NSS or to its own local Health Board governance arrangements?

A. ARHAI Scotland, as part of NHSScotland Assure, has not received any formal report from NHSGGC regarding derogations from the NIPCM.
Discussions are currently ongoing between NHSScotland Assure and the Scottish Government regarding the stage alignment, topic extent, escalation mechanism and appropriate integration of our advice and assessment services.

a) With hindsight, had NHS Scotland Assure (NSA)/KSAR existed at the time and then had a role in commissioning/validation/handover in respect of the QEUH/RHC in 2015 do you think that the migration of patients occurred in the absence of

validation of the ventilation system and in light of either an absent L8 risk assessment or, the findings of the DMA Canyon 2015 Risk Assessment?

A. It is important to note that NHSSA was conceived because of the issues at the Queen Elizabeth University Hospital (QEUH) and the Royal Hospital for Children (RHC). Prior to these events, there was no perceived need for the level of oversight that NHSSA now provides. Had NHSSA/ Key Stage Assurance Review (KSAR) existed earlier, with a role in commissioning/ validation/ handover in respect of the QEUH/ RHC, health boards and their construction partners would have remained responsible for ensuring that systems were commissioned in accordance with statutory instructions and guidance. However, while it is possible that the migration of patients could have been delayed, it is difficult to determine the impact of the earlier existence of NHSSA with certainty, as it would have depended on the information shared with NHSSA. That said, the KSAR process could have highlighted issues with the commissioning and validation data for the water and ventilation systems. This may have provided an opportunity for the health board to resolve any discrepancies prior to patient migration.

b) In respect of your answer to question 23 of your draft statement why did NSA not have access to and review the final water testing and handover materials? In your view did this amount to NHSGGC failing to follow the pathway that had been set down?

A. Our interaction with NHSGGC was in line with the standard NHSSA operating procedure. i.e. the health board could request our support for any project that is within their delegated authority and is not approved through the Capital Investment Group (CIG). The refurbishment of wards 2A and 2B did not fall within NHSSA's remit through either of these routes. My understanding is that this project fell within the remit of the QUEH oversight group. Our involvement at the time was limited to reviewing water testing data as requested by the QUEH oversight group and making the offer of site visits and a ward walkaround. As I previously stated in response to Question 23, the pathway methodology to ascertain progress towards reopening was for NHSGGC to monitor and complete; there was not an expectation for NHSSA to monitor adherence to this pathway. NHSGGC requested our involvement prior to the request from the QUEH oversight group. I understand that this was due to one of our newly appointed engineers being previously

involved with NHSGGC (as a private contractor), prior to taking up post with NHSSA.

c) With reference to your answer to Question 29 about how NHS GGC declined the offer from NSA to discuss and walk around the refurbished ward. How long would it have taken NSA to complete these tasks?

A. NHSSA committed to providing as much multidisciplinary resource as it would take to support a short life working group (SLWG) and a site walk round. It is difficult to quantify how long this would have taken overall, as it would have been dependent on the findings during the walk round and any subsequent results requests. However, what can be assured is that there would have been no delay on NHSSA's part.

d) With reference to your answer to Question 31 given the concerns that existed about the impact of the original ventilation and water systems in Ward 2A on patient safety would you not have expected NHSGGC to have welcomed the offer by NHSSA to provide assurance to the Board and to patients and families?

A. The involvement of Health Facilities Scotland (HFS) / ARHAI Scotland, now NHSSA, is at a health board's discretion. If a health board is of the opinion that it can assure itself of statutory compliance within a refurbishment then NHSSA will not be involved. This happens with many projects which are carried out across all health boards each year. The exceptions to this are the major capital projects which are mandated as part of the Scottish Governments Director's Letters; **(Bundle 52, Volume 2, Document 24, Page 377)** and **(Bundle 52, Volume 2, Document 14, Page 180)** and are approved through CIG. I cannot comment on whether NHSGGC would have welcomed NHSSA involvement in this refurbishment, however if they had asked, we would have supported the reopening of wards 2A and 2B by ensuring the healthcare environment was safe for patient use, using the expertise and processes developed within NHSSA.

e) With reference to your answer to Question 35 would it not have been possible for NHS GGC to work with NSA in a "full" KSAR process if NHS GGC had asked for NSA's support earlier in the project?

A. In terms of timescales, the national documentation for KSAR was finalised at a time when ward 2A/2B was being constructed. At that stage, it would have been too late in the process to use a KSAR, and the project was not subject to CIG approval. Therefore, it did not meet the criteria for use of a KSAR. Also, the KSAR comments question sets were developed in conjunction with all health boards and other stakeholders to ensure a comprehensive question set and could not have been developed with a single health board.

f) With reference to your answer to Question 37 you explain that all NHS Boards require to engage with NSA and "NHS Scotland Assure is not an inspectorate, however the governance mechanisms in place through the Scottish Government allow the key compliance oversight function for all new build projects and major refurbishments to be delivered."

(i) It has been suggested that given NHSGGC could duck the compliance oversight being offered by NSA "due to lack of time" this indicates that the NSA is not providing the oversight function envisaged by the Scottish Government and as a consequence there are not robust and effective governance mechanisms in place when Health Boards such as GGC do not comply. What is your view on this?

A. Governance and responsibility for complying with statutory legislation and guidance lies with health boards. Health boards could request NHSSA assistance on a variety of healthcare related topics. However, for major capital projects, NHSSA involvement is mandated under the Scottish Governments Director's Letters ref **DL (2021) 14 (Bundle 52, Volume 2, Document 24, Page 377)** and **DL (2023) 03 (Bundle 52, Volume 2, Document 14, Page 180)**. NHSSA was never intended to become involved in every single small NHS construction project in Scotland. KSAR and NHSScotland Design Assessment Process (NDAP) are intended to operate across a programme of capital works, from conception to opening and receiving patients. KSAR and NDAP are not 'one off' or 'dip in and out' processes. The KSAR process is intended to guide a programme from one stage of build to another. It is not intended to be utilised as a stand-alone process used at only one juncture in a build, as would have been the case with wards 2A and 2B. This project was also below the delegated authority for capital works and did not come through CIG, the trigger mechanism for KSAR involvement.

(ii) Given the above what is your rationale for saying in paragraph 37, “The development of NHS Scotland Assure into a responsive, knowledgeable resource that supports excellence in the health care environment should also provide reassurance that safety and appropriate patient environment is at the heart of NHS Scotland provision”?

A. It is important to note here that NHSSA does not just deliver the assurance / KSAR/NDAP process. We also support excellence in the healthcare environment and provide reassurance regarding safe and appropriate environments through provision of subject matter expertise, support relating to areas including procurement and delivery, production and advice on guidance, IPC knowledge and expertise, provision of training, research and knowledge management. NHSSA cannot force health boards to use our skills in a non-mandated setting, however they do actively seek advice and guidance from NHSSA and the feedback that we receive indicates that our input is valued by them.

(iii) Can you assist the Inquiry in understanding whether there are any statutory powers that could be used by Scottish Government to ensure compliance following a report by NSA that the ‘engagement’ of an NHS Board with NSA in this process was in any way inadequate?

A. I am not aware of any statutory powers in this regard; however, this would typically be dealt with through the governance processes in place and specifically by the Scottish Government CIG. The CIG has the authority to elect not to recommend a business case for approval due to any deficiency in the business case, including a reported lack of engagement with NHSSA processes. Scottish Building Standards already provides the current statutory framework and mandated engagement for the design of all healthcare premises. This is required irrespective of whether the health board financial threshold requires CIG approval. This framework has a mechanism for statutory consultees. The Scottish Government might be best placed to provide further detail in response to this question.

g) With reference to your answer to Question 38 is it your understanding that the Capital Investment Group now has the time and skills to review a project in terms of compliance with standards that have prompted NSA to report an ‘unsupported’ status for a project?

A. While I am unable to comment on the formulation of CIG membership, CIG does include senior level representation from NHSSA and Scottish Futures Trust, the Scottish Government Asset Policy Advisor and the Associate Director of Health Infrastructure and Sustainability, as well as representation from various areas and directorates within Scottish Government (including policy, economics, primary care, mental health and clinical directorates). A representative from the Scottish Health Council also attends. NHSSA (and previously HFS) have had a representative on the CIG for approximately 10 years. We have been represented on CIG since around 2014/15 by our Assistant Director (Property, Sustainability and Capital Planning), both by the current post holder and his predecessor. Membership of CIG is now part of the job description for this role. Regular pre meeting liaison and dialogue between this individual and technical lead colleagues within NHSSA takes place in advance of each CIG meeting, We, in addition, meet with Scottish Government colleagues in advance of each meeting. The CIG reviews business cases in the widest sense, covering strategic, economic, management, financial and commercial considerations. It receives assurance on technical and design matters from NHSSA by way of 'supported' status (or not) for both KSAR and NDAP, and a detailed report for each. This forms part of the decision making of the CIG and while it is for the CIG to determine whether it recommends a business case for approval, it is highly unlikely that a full / unconditional recommendation would be made without this supported status being in place. It should be noted that CIG does not become involved in detailed technical issues - this is undertaken by subject matter experts (SMEs) through the NDAP and KSAR processes, before the business case reaches CIG.

Infection Monitoring and Communication

40. In her witness statement to the Inquiry at Paragraph 65, Laura Imrie, ARHAI, describes weekly meetings between herself and Sandra Devine, Director of IPCT at QEUH, to enhance communication between both organisations. The Inquiry understands these meetings have now stopped. Did you viewthese meetings to have been an effective way to enhance communication by sharing information, providing updates and discussing concerns?

A. Laura Imrie and I found these meetings a helpful mechanism for ARHAI Scotland to follow up with NHSGGC on any outstanding requests for information and address any concerns ARHAI Scotland may have. They also allowed NHSGGC to clarify any information requests, update ARHAI Scotland and address any concerns from an NHSGGC perspective.

41. Why have these meetings now stopped?

A. I was copied into an email from Sandra Devine, Acting Infection Control Manager, NHSGGC to Laura Imrie on 24 September 2024 in which Sandra Devine stated: "Thank you for taking the time to meet with me each Monday. I think in the short term this was productive, but this has gone on longer than I had anticipated and I had hoped that we would have had some clarity from SG regarding roles and responsibilities by now as this request was made several months ago; perhaps this will be discussed in the upcoming event on the 2 October? In the meantime, please feel free to contact me should any issues arise." **(Bundle 52, Volume 2, Document 15, Page 181).**

Since the routine meetings have stopped, I am aware that Laura Imrie has asked to initiate a mechanism to highlight to Sandra Devine, as Director of IPC, where requests have either not been met by NHSGGC or where there have been challenges in ARHAI Scotland receiving information requested in full or in a timely manner in relation to infection related incidents or outbreaks.

42. What is your opinion and that of NHSScotland Assure about whether the cession of these meetings is justified on the part of NHS GGC?

A. I cannot comment on whether NHSGGC's rationale to cease these meetings are justified; NHSGGC did not share its reasoning with ARHAI Scotland or myself as per the email referenced in paragraph 45.

43. When and how did NHSScotland Assure report cession of these meetings to the CNO/CNOD HAI Policy Unit or Scottish Ministers? Please produce the Correspondence.

A. As far as I am aware Laura Imrie updated Colin Urquhart, Policy Lead, Scottish Government during one of their one to one bi-weekly catch-up meetings. In

October 2024 the Scottish Government issued **DL (2024) 24 (Bundle 52, Volume 2, Document 6, Page 69)** which reiterated its expectations on the HCAI reporting process to ARHAI Scotland in line with Chapter 3 of the NIPCM.

44. Does NHSScotland Assure have confidence that NHS GGC is following the Practices of HAI investigation and reporting set down in the NICPM and why?

A. There continues to be challenges with NHSGGC sharing data with ARHAI Scotland in relation to infection related incidents. I am aware that there were difficulties in obtaining data relating to Cryptococcus cases. I am also aware that Laura Imrie has been asked by the Inquiry to provide further information and timelines on this matter in a supplementary witness statement which she has now submitted.

45. Ms Imrie also mentions that she was aware you continue to communicate with Professor Angela Wallace. What was the nature of these communications?

A. My formal and informal communications with Professor Angela Wallace were primarily concerned with non-compliance with national incident reporting of outbreaks and the lack of a response from NHSGGC to ARHAI Scotland's requests for additional information to allow for accurate reporting. The detail of the letters we exchanged were discussed, including the issue of ARHAI Scotland and Health Boards' roles and responsibilities.

46. Please can you produce the complete correspondence between Ms. Critchley and Professor Wallace referred to above.

A. Further copies of written and email correspondence between myself and Professor Angela Wallace have been provided to the Inquiry (**2023-10-20 NHS GGC letter re ARHAI**; **Bundle 52, Volume 2, Document 17, Page 187** and emails entitled '**RE Operational IPC' Bundle 52 Volume 5, Document 22, Page 104**).

A Director Letter, **DL (2024) 11 (Bundle 52, Volume 2, Document 16, Page 182)**, outlines the main responsibilities for Health Boards in relation to the infection prevention and control (IPC) service and introduces the team and specialist IPC role descriptors. This was issued by CNOD to ensure greater clarity

for Health Boards.

47. Have you or any part of NHSScotland Assure ever asked NHS GGC to demonstrate how its practices for HAI investigation and reporting and any deviation from the reporting set down in the NICPM has (as set out in DL (2024) 01) been considered and approved in line with the local Health Board governance arrangements and has been frequently reviewed within those structures? If so what response has been received?

A. NHSScotland Assure does not have a scrutiny or oversight role. While we may request additional information from a Health Board to support the assessment of an incident, or provide advice on further investigations or control measures, our involvement is in a supporting role. We do not hold any authority or responsibility for governance or oversight of individual Health Boards.

48. Do you continue to communicate with Professor Wallace?

A. Yes, I communicate with Professor Angela Wallace as and when required as part of my role.

49. In her oral evidence, Ms Imrie mentions concerns in respect of governance structures around carrying out HIIAT assessments and the criteria for reporting infection-related incidents within NHS GGC. Do you share these concerns?

A. Yes, I share Laura Imrie's concerns. On 11 January 2024 I sent a letter to Professor Angela Wallace (**Bundle 52, Volume 2, Document 17, Page 187**) which noted:

'ARHAI Scotland acknowledge that the surveillance systems in place within NHSGGC for capturing data relating to infections are robust. I am unable to comment on the governance around internal escalation. The issue I was raising was that the triggers for external reporting to ARHAI appear not to be aligned with the NIPCM. This may be due to the NHS Board awaiting typing or Whole Genome Sequencing results before reporting and I have asked Laura to explore this with Sandra. HIIAT assessment, in accordance with Chapter 3, should be undertaken at the first opportunity and an individual member of the IPCT may undertake an initial assessment which can be updated when a PAG/IMT is convened.

I feel that these key areas reflected what appears to be a different understanding

as to the role of ARHAI Scotland in reviewing and providing assurance around infection related incidents and as we discussed I will consider with CNOD'. Following this exchange with Professor Angela Wallace, CNOD reissued **(DL) (2024) 01 Extant Guidance on Infection Prevention and Control, Surveillance and Vaccinations for Influenza and Covid-19 (Bundle 52, Volume 2, Document 18, Page 189)**. This DL reiterated adherence to the NIPCM but caveated:

- The recognition that during times of increased service pressure Health Boards may adopt practices that differ from those stated in the NIPCM.
- Health Boards can do this, but it is their responsibility to ensure safe systems of work including risk assessment.
- Any decision to derogate should be considered and approved in line with the local board governance arrangements and must be frequently reviewed within those structures.

Therefore, it is not currently mandated for Health Boards to report outbreaks directly to ARHAI Scotland. However, the normal procedure for Health Boards is that they report outbreaks to ARHAI Scotland, which allows for transparent monitoring of current and previous outbreaks across NHSScotland.

50. Ms Imrie further advised, "as a national body, how can you give assurance that nothing's happening if you're not sure that you've been told anything?" Do you agree with this statement?

A. I agree with Laura Imrie's statement. NHSScotland Assure/ ARHAI Scotland can only provide responsive expertise and support when they are aware of an infection issue within a Health Board. The DL referred to in paragraph 47 sets out the expectation that a Health Board should inform ARHAI Scotland of infections within that Health Board, in line with Chapter 3 of the NIPCM Outbreak reporting protocol. If a Health Board does not inform NHSScotland Assure/ ARHAI Scotland of an infection or outbreak, we would be unable to give support and be unable to discharge our duties around these requirements. If a Health Board chooses not to disclose infections or outbreaks to NHSScotland Assure/ ARHAI Scotland, then we would not be able to support that Health Board or understand the extent of

infections or outbreaks within that Health Board or report any outbreaks to CNOD.

51. Do you believe that there are now sufficient and adequate control systems in place to monitor infections within the QEUH/RHC? If so, why?

A. Although there is published guidance in the NIPCM Chapter 3 for Health Boards to follow, there remain challenges in receiving information from NHSGGC when requested. I am aware that since NHSGGC cancelled the weekly meetings between Sandra Devine and Laura Imrie there have been occasions where ICDs within NHSGGC have either failed to respond to requests for further information or where the information has required several requests. I understand that ARHAI Scotland staff have now been asked to escalate any difficulties through Laura Imrie and Sandra Devine.

52. Do you believe there are now sufficient and adequate control systems in place to monitor infections within health boards in Scotland? If so, why?

A. ARHAI Scotland as the national body for HAIs, we require Health Boards to firstly identify infection related incidents and issues and, secondly, follow reporting processes, which currently are not mandated by the Scottish Government. If reporting were to be mandated by the Scottish Government via a DL, then all Health Boards would have to report their infections and outbreaks. Currently if a Health Board fails to identify or report, NHSScotland Assure/ ARHAI Scotland would not be aware of incident and outbreak information, which then could not be used to form a holistic picture of infection incidents and outbreaks across NHSScotland. This could potentially impact patient safety.

53. Do you believe there are now sufficient and adequate control systems in place to monitor infections within NHS GGC? If so, why?

A. It is difficult to fully determine whether sufficient and adequate controls are currently in place to monitor infections within a Health Board, including NHSGGC. This is because unless there is transparency and timely and comprehensive information exchange between Health Boards, ARHAI Scotland and the Scottish Government, it is impossible to fully assess the robustness and effectiveness of an external monitoring system. A national surveillance system that enabled ARHAI Scotland to access real time data, similar to that being considered by the

Scottish Government, may allow a clearer understanding of Health Board reporting and any gaps in data being shared with ARHAI Scotland.

a) Do you consider that incidents reported through ARHAI interpretation rather than directly from the referring board to HAIPU might lead to accuracy issues? Would a more reliable process be direct reporting from the clinical staff managing the situation? Given the history of NHSGGC was it sensible for NHS GGC to monitor compliance with the action plan through their own internal governance?

A. I understand that NHSGGC has, on several occasions in this Inquiry, expressed the view that incident reports should come directly from health boards as opposed to through ARHAI Scotland, to ensure accuracy. However, NHSGGC has not provided any evidence to suggest that ARHAI Scotland has misinterpreted or inaccurately represented information. Furthermore, the reporting health board senior Infection Prevention and Control Team (IPCT) is included in communications to the Scottish Government, to ensure transparency.

There are 14 NHS Boards in NHSScotland which report incidents through the ARHAI Scotland Outbreak Reporting (ORT) Template. Having ARHAI Scotland review all HAI (Healthcare Associated Infection) incidents reported by health boards and report to the Scottish Government offers several strategic advantages. As an independent body, ARHAI Scotland provides impartial advice and subject matter expertise, ensuring that incident reviews are consistent, evidence-based, and aligned with national guidance. This centralised approach promotes standardisation in reporting, enhances data quality and integrity, and enables early detection of national trends or emerging threats. It also strengthens accountability and transparency through a single and reliable reporting channel. Furthermore, ARHAI Scotland's oversight supports informed policymaking, effective resource allocation, and the sharing of best practices.

b) The decision for the action plan to be monitored through internal NHSGGC governance structures was taken by the Scottish Government Oversight Group. In paragraph 41 of your statement you say:
"Since the routine meetings have stopped, I am aware that Laura Imrie has asked to initiate a mechanism to highlight to Sandra Devine, as Director of IPC, where requests have either not been met by NHSGGC or where there have been

challenges in ARHAI Scotland receiving information requested in full or in a timely manner in relation to infection related incidents or outbreaks."

(i) It has been suggested that this suggests NHS GGC operate "as a law unto itself". Do you agree with this suggestion?

A. I believe that NHSGGC has developed an internal Standard Operating Procedure (SOP) for monitoring and reporting healthcare infection incidents which does not appear to align with NIPCM, Chapter 3, and may have resulted in an inconsistent approach to communicating incidents and outbreaks to ARHAI Scotland.

(ii) Do any other health boards operate in this manner to this extent or is this restricted to NHS GGC?

A. I am not aware that any other health boards in Scotland have developed their own protocols relating to reporting infection-related incidents.

In my time as NHSSA Director, I have only had one instance out with NHSGGC escalated to me, due to difficulty in obtaining intelligence to allow ARHAI Scotland and the NHSSA Engineering Team to carry out the required assessment. This was a complex facilities issue which was resolved following discussion with the local health board Facilities Director.

c) At question 45 of your statement to the Inquiry of June 2025 you discuss your communications with Angela Wallace which were "concerned with non-compliance with national incident reporting of outbreaks." What evidence do you have that NHS GGC were not reporting incidents as per NIPCM?

A. In answer to question Q12a in my statement to the Inquiry dated June 2025, at paragraph 47, my response related to "My formal and informal communications with Professor Angela Wallace" which "were primarily concerned with non-compliance with national incident reporting of outbreaks and the lack of a response from NHSGGC to ARHAI Scotland's requests for additional information to allow for accurate reporting".

My communications with Angela Wallace were triggered by issues escalated by Laura Imrie to myself (as her line manager) and Jacqui Reilly (as NSS Professional Lead and Nurse Director), and her sharing of a number of

communications between NHSGGC IPCT and ARHAI Scotland. These exchanges evidenced to me that, despite the weekly meetings between Sandra Devine and Laura Imrie, there were continuing issues regarding the reporting of incidents in line with the HIIAT assessment; delayed response to ARHAI Scotland information requests and local criteria for surveillance exceedance being applied that were not clear to ARHAI Scotland.

d) Please review Ms Devine's response to Question 19 in her statement for the Glasgow 4, Part 2 hearing that addresses questions about the *NHS GGC 'Incident Management Framework SOP*' (**Bundle 27, Volume 17, Document 28, Page 315**):

(i) Do you accept that "NIPCM's definition of an outbreak/incident is open to interpretation"?

A. The National Infection Prevention and Control Manual (NIPCM) guidance is developed collaboratively with local health board senior IPCTs. Whilst I acknowledge that some definitions may be open to interpretation by individuals without IPC training, I do not accept that this applies to experienced, trained, senior IPC professionals. These definitions are consistently applied across the UK, and their expected use within NHSScotland has been clearly outlined in Scottish Government Directorate Letters; **(https://www.nipcm.hps.scot.nhs.uk/media/1653/2017-04-03-nipcm-endorsement-letter.pdf)** and **DL (2024) 24 (Bundle 52, Volume 2, Document 6, Page 69)**.

(ii) Do you accept that the paragraph 2.1 of the *NHS GGC 'Incident Management Framework SOP* is "entirely consistent with the guidance in the *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams*, section 6.4"? **(Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams - Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams - Publications - Public Health Scotland)**

A. On reading both documents I agree that the NHSGGC SOP paragraph 2.1 reflects the Management of public health incidents: guidance on the roles and

responsibilities of NHS led incident management teams section 6.4. However, it is my understanding that both the Management of Public Health Incidents document and the NIPCM consistently advise health boards to follow Chapter 3 of the NIPCM, including HIIAT assessment for all healthcare infection incidents.

(iii) What relevance does section 6.4 of the *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams* have to the operation of Chapter 3 of the NICPM?

A. I do not feel that section 6.4 of “Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams” is relevant for a SOP advising on healthcare related incidents, given that the Management of public health incidents document consistently cites Chapter 3 of the NIPCM as the relevant reference for managing healthcare-associated infection incidents.

(iv) How would you respond to the suggestion that the reference to *Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams* at the start of Chapter 3 of the NIPCM would entitle NHS GGC to create an SOP which operates in the manner described by Ms Devine?

A. As I understand it, the reference at the start of Chapter 3 of the NIPCM merely demonstrates alignment with outbreak management principles across Scotland. Both the “Management of public health incidents: guidance on the roles and responsibilities of NHS led incident management teams” and the NIPCM consistently advocate the use of Chapter 3 of the NIPCM as the document relevant to outbreak management within a healthcare setting.

(v) Do you accept that the response that Ms Devine has made to question 19(b) as fully addressing your concerns?

A. No, I think the response from Ms. Devine confirms that the NHSGGC local SOP, which introduces "clinical opinion" without a framework that sets out the criteria being used locally, may be facilitating assessments outside of the NIPCM guidance. The NIPCM requires all incidents (green, amber & red) to be reported through the Outbreak Reporting Tool (ORT).

(vi) Does the number of reports by NHS GGC to ARHAI described by Ms Devine in her answer to Question 9(c) satisfy you that NHS GGC is fully complying with its reporting obligations in the NIPCM?

A. My understanding is that the number of incidents reported cannot be used as a guide to whether a health board is compliant or non-compliant with reporting guidance.

e) The Problem Assessment Group (PAG) consists of multidisciplinary teams. Do you consider it appropriate for ARHAI to scrutinize the decisions made by these teams, despite not being directly involved in reviewing the clinical information or situation required for such assessments?

A. The Scottish Government has assigned ARHAI Scotland responsibility for monitoring and reporting healthcare-associated infection incidents across NHS Scotland. To effectively fulfil this role, it is entirely appropriate for ARHAI Scotland to seek relevant information to understand the context and actions taken by the local health board. The phrase 'scrutinise the decisions' may reflect a perception rather than the reality of ARHAI Scotland's role, which is to ensure accurate and comprehensive reporting rather than to conduct oversight in a critical or adversarial manner. ARHAI Scotland may request additional information to better understand decisions taken by local health boards where the information is missing from the ORT. Requests for additional information made by ARHAI Scotland can also be requests made on behalf of the Scottish Government.

Based on the information made available by the local health board, ARHAI Scotland may offer support and advice, however, the local health board responsible for managing the incident can choose to accept or decline that support and advice.

f) At question 50 of your statement, you state that if a Health Board chooses not to disclose infections or outbreaks then you are unable to support them. It has been suggested that this requirement to report infections may undermine local clinical decision making. What is your view on this?

A. National reporting is not intended to interfere with local autonomy, but rather to complement it, ensuring consistency, accountability, and the opportunity to identify wider trends or risks that may not be visible at the local level. Our role is to support health boards in delivering safe, high-quality care through shared learning, expert advice, and national coordination. In doing so, we also support the Scottish Government with objective, evidence-based advice and subject matter expertise to inform national policy and response.

g) At question 51 of your statement, you advise that there have been occasions where NHSGGC have either failed to respond to requests for further information or where several requests for information have been required.

(i) Are you aware of any reasons why infection control doctors in NHSGGC failed to respond to repeated requests for information from ARHAI?

A. No, I am not aware of any reason why ICDs in NHSGGC failed to respond to repeated requests for information from ARHAI Scotland.
As discussed earlier in this statement, NHSSA has not had similar reporting issues with any other health board in Scotland.

(ii) Does this demonstrate a supportive working relationship between ARHAI and NHS Boards throughout Scotland?

A. IPC in healthcare can be extremely challenging, with an ever-increasing agenda, much of which is delivered within tight timescales. ARHAI Scotland has six priority programmes, all of which have excellent input from local health board IPCTs. ARHAI Scotland is routinely called upon to support local health boards in managing healthcare infection incidents and respond to general inquiries. However, exceptions may arise depending on the specific circumstances of individuals or organisations involved. I do not believe that the practices observed within a single health board, or by a small number of individuals, can be used to make generalisations about NHSScotland as a whole.

h) At question 51 of your statement, you discuss instances of failure to report. What evidence do you have to support this statement regarding potential instances of failure to report without being involved in the governance of NHS GGC or the function of the IPCT?

A. In paragraph 51 I do not refer to instances of failure to report. I refer to issues around NHSGGC responding to ARHAI Scotland requests for further information, or it only producing information after several requests have been made. I am also aware of one instance of failure to report in relation to *Cryptococcus* cases, of which my colleague Laura Imrie has a more detailed understanding.

Common Data Environment

54. Recommendation 21 of the Independent Review Report states, "there should be greater use of digital technologies to create, log and store project documentation. This would allow relevant information to be shared with project partners. It would facilitate governance and review of project activities and decisions." Following this recommendation NHS GGC established the Common Data Environment, a digital database of assets, which they worked to progress and pilot alongside NHS Scotland Assure.

What was the nature of the support which NHS Scotland Assure provided to NHS GGC in respect of progressing the Common Data Environment? What was the outcome of the pilot? Was this an effective way to monitor assets? Does this system continue to operate?

A. In 2017 the Scottish Government released a Scottish Procurement Policy Note (SPPN 01/2017) which outlined the requirement for Building Information Modelling (BIM) to be adopted on Public Sector Projects (where appropriate) from April 2017. Health Facilities Scotland (HFS) set up the BIM Development Group in late 2016 to support Health Boards with their adoption and implementation of BIM in the lead up to SPPN 01/2017. This included the creation of a BIM Strategy, guidance, templates and a training programme. This group subsequently evolved into the Digital Estate Group in 2019 with one of its key objectives being to establish a concept and methodology for Health Boards to digitise their estate. This group continues to meet quarterly.

A Common Data Environment (CDE) is a requirement to comply with SPPN 01/2017 and serves as both a software tool and an information management process which enables a collaborative way of working. When used, the CDE

provides greater reliability of data, and an audit trail of decisions made throughout the capital delivery phase.
The CDE is an essential part of the wider NHSScotland Digital Estate framework and, if implemented, the CDE can act as a single source of truth or the ‘golden thread’ for the estate throughout the whole lifecycle of an asset. The crucial purpose of this golden thread is to safeguard the availability, completeness and correct record of a facility’s construction and its regulatory compliance. The creation of a golden thread of information is therefore inherent to Health Boards and would allow them to respond to building failure events more effectively and eliminate the need for re-surveying or manual data collection. This would form part of the solution to the historic challenges around availability and accessibility of data across the estate.

In 2020/21 NHSScotland Assure (previously HFS) worked with key stakeholders to scope and procure an enterprise level CDE for use by Health Boards. As part of the CDE roll out, all Health Boards were offered Pre-Healthy Start and Healthy Start meetings which were led by NHSScotland Assure and supported by an external consultant ([redacted]). The purpose of these meetings was to identify and set out the strategic case for use of the CDE, to provide an overview of the guidance documents and support tools available to Health Boards. Additional consultancy support was offered to Health Boards to support the mobilisation and implementation of the CDE. Health Boards were also offered training on the system.

The original project rollout and implementation plan was adjusted due to low Health Board uptake. This was attributed to the extreme pressures Health Boards were under at the time, along with resource challenges within Health Boards. The use of the CDE was not mandated, which contributed to the low uptake from Health Boards, with this being seen as a “nice to have” and not a requirement. Instead, some Health Boards opted to use supply chain CDE during the capital delivery phases of projects, where the benefits of the CDE are not retained at handover and during operation.

The initial NHSGGC pilot covered one site at QEUH, the Institute for Neurological

Sciences building, and other sites within the NHSGGC estate. There are a total of 46 documents uploaded to the CDE for this pilot. NHSScotland Assure's role centered around the development of guidance and tools and the Health Board were responsible for concluding the pilot and rolling this out further within their organisation.

NHSGGC has continued to engage with NHSScotland Assure regarding their ongoing progress on their Digital Estate (DE) journey beyond this initial pilot. One of the challenges the Board is trying to overcome relates to the importance of defining the information requirements at early stages of projects and standardisation of these requirements. This is work that the Board is actively progressing internally and with support from Scottish Futures Trust (SFT). The learning from NHSGGC is being shared more widely within the NHSScotland Digital Estate Group and is being reflected in our own guidance.

The pilot with NHSGGC was fairly limited in scope and while providing a proof of concept and allowing NHSScotland Assure to explore the technology and its use, it was probably not extensive enough to fully answer the question on its effectiveness to monitor assets. However, NHSScotland Assure does believe the CDE could be a key way to support the monitoring, management and performance of assets, if used properly throughout the life cycle of the asset, and as part of a wider Digital Estate strategy. This would also include the Strategic Asset Management System (SAMS) and Health Boards' Computer Aided Facilities Management (CAFM).

The CDE continues to operate, however the contract comes to an end on 31 March 2025, and NHSScotland Assure is currently engaged with key stakeholders (including NHSGGC) to scope and procure a new enterprise CDE.

a) With reference to question 54 are you familiar with PHS (2020) document "Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams", particularly content of paragraph 100 on page 27 which states "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." and that a common data environment will not capture the clinical information required to undertake such an assessment?

A. I am familiar with the document 'Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams'.

I feel it is important to consider the whole document in context. Page v of this document sets out its purpose 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 document also states that: "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 d and Chapter 3 of the National Infection Prevention and Control Manual (NIPCM): http://www.nipcm.hps.scot.nhs.uk/".

Furthermore page 46 of the same document under the sub heading Notification point 4 states: "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 D)**."

I would consider this document clearly and concisely references the NIPCM as the relevant national guidance and reporting requirements for healthcare infection incidents.

The document consistently refers to Annex D: Healthcare Infection Incident Assessment Tool (HIIAT) in relation to healthcare settings, which in turn directs the reader to Chapter 3 NIPCM. The NIPCM is developed collaboratively with health

board IPCTs, who therefore have a detailed understanding of its guidance and reporting requirements. To my knowledge, no other health board has produced guidance that selectively incorporates elements from 'Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams' in place of the comprehensive guidance provided within the NIPCM.

b) It has been suggested that excessive reporting of incidents may divert clinical teams from their practice, potentially affecting patient safety and the morale of relatives, carers, and staff. What is your view on this?

A. I am unclear what evidence underpins this statement. Specifically, I do not understand how the reporting of infection-related incidents is believed to negatively impact the morale of relatives and carers. While I acknowledge that monitoring and reporting incidents and outbreaks requires significant resource, robust surveillance systems are widely recognised by IPC professionals as a fundamental component of effective infection prevention and control, and essential to reducing the risk of healthcare-associated infections. Therefore, while I accept that managing HAI risks places demands on clinical teams, I do not share the view that this is detrimental to patient safety, nor am I aware of any evidence suggesting it adversely affects the morale of relatives, carers, or staff.

Chief Executive Letters (CELs)/Directors' Letters (DLs)

55. The Inquiry has heard evidence that Chief Executive Letters (CELs) / Directors' Letters (DLs) offer an opportunity for guidance, and by extension knowledge and learning, to be transferred across health boards and the Scottish Government. Save for CEL 19 (2010), CEL 27 (2010) and DL (2021) 14, are there any other examples of CELs and DLs which have either directly or indirectly allowed knowledge transfer across health boards in respect of:

a) The procurement of new facilities

A. NHSScotland Assure is aware of a number of CELs and DLs that have been published that are relevant to both the procurement of new facilities and the management of IPC. These are included in **Appendix D.**

b) Management of IPCT; and

A. ARHAI Scotland publishes a HAI Compendium within the NIPCM. This includes a live list of all CEL and DLs which is updated monthly. The HAI Compendium provides links to current national policy and guidance on HAIs, antimicrobial prescribing and resistance, decontamination, the built environment and other related topics from relevant stakeholders and organisations, including NHS Education for Scotland (NES) resources. It is updated by ARHAI Scotland in response to policy and guidance updates, review or removal.

c) Any other relevant aspects of healthcare builds?

A. Construction Policy Notes (CPNs) are produced by Scottish Government. CPNs alert public sector contracting authorities to new policy, guidance and other matters relating to public sector construction procurement and delivery. (Construction policy notes (CPNs) - gov.scot)

It should be noted that it is not within the remit of NHSScotland Assure to maintain the database of publications. This is a function of the Scottish Government.

56. Can you please produce the HAI Compendium list that is currently in force?

A. The current HAI Compendium list can be accessed via HAI Compendium Guidance and resources.

57. Are you aware of any future CELs or DLs currently under consideration which will facilitate future knowledge transfer across health boards in respect of:

a) The procurement of new facilities;

b) Management of IPCT; and

c) Any other relevant aspects of healthcare builds?

A. The Scottish Government is responsible for writing and publishing CELs and DLs. The Scottish Government may request input from NHSScotland Assure or have requested input from its predecessor organisations for technical, clinical or facilities topics.

I am aware that the Scottish Government is considering new DLs, including a Whole System Planning update and Mental Healthcare-Built Environment Quality and Safety Tool. This question however would be best directed to the Scottish Government for a more fulsome response.

58. The Inquiry has heard of examples where Health Boards have opted not to follow the direction provided through CEL and DLs. It has further heard that the responsibility to comply with CEL and DLs rest with the health boards. What means, if any, are available to:
a) The Scottish Government; and

b) NHS Scotland Assure
to make sure that health boards comply with the guidance recommended or incorporate lessons learned into their systems and processes.

A. The Scottish Government would be best placed to respond to any questions on the means available to them to make sure that Health Boards comply with CEL and DLs.

Ultimately Health Boards are responsible for adherence to CEL and DLs; NHSScotland Assure has no scope to ensure they comply, beyond the authority given in **DL (2023) 03 (Bundle 52, Volume 2, Document 14, Page 180).** Ensuring patient and staff safety through risk assessment and mitigation of risk is the responsibility of the Health Boards. NHSScotland Assure does not have powers to enforce Health Boards to adopt guidance or comply with DL instructions.

59. The Strategic Facility Group's (SFG) terms of reference state that one of the remits of the group is to "Ensure a co-ordinated approach to share and spread knowledge and lessons learned relating to issues affecting all NHS Boards". What steps, if any, have been taken to create a formal structure within the SFG to enable the co-ordinated transfer of knowledge and lessons learned in respect of:
a) The procurement of new facilities;

b) Management of IPCT; and

c) Any other relevant aspects of healthcare builds between health boards?

A. The Strategic Facilities Group SFG was a national group established in late 2004/ early 2005. It had representation from relevant staff from all Health Boards and provided a national and centralised forum for estates and asset management.

SFG functioned in this way until November 2018 when the group was reviewed and became the Regional Strategic Facilities Group (RSFG). This group had a specific remit to share best practice and maximise the collective resources available, as well as creating capacity and developing capability within the healthcare-built environment for Health Boards. It did this by using a meeting format with additional biannual workshops specifically to aid learning and best practice. The remit would include property and capital planning, engineering and facilities management topics and maintenance and compliance with legislation and guidance.

In 2023 the RSFG became the National Strategic Facilities Management Group (NSFG), which also focused on risk management and education as well as the governance of the reporting Advisory Groups. The Terms of Reference (NSFG TOR) detailed that this group would continue to “ensure a coordinated approach to share and spread knowledge and lessons learned relating to issues affecting all NHS Boards”.

Whilst many relevant topics are, and have been, presented through NSFG and its predecessors, NHSScotland Assure also provides a wide range of forums that are used to share best practice, knowledge and lessons learned. Topics are included from all areas of NHSScotland Assure, for example, Property Sustainability and Capital Planning, Engineering, Decontamination, ARHAI Scotland and Public Private Partnerships Programme Team (PPP). These are detailed in **Appendix D.**

The Learning Network has presented on a range of topics over recent years and is open to all interested staff from Health Boards, construction colleagues and supply chain partners. The following list provides a small extract of the type of learning activity that is provided via NHSScotland Assure and NSFG.

- Workforce (March 2022)

- Assurance Service: Initial Agreement Lessons Learned and Outline Business Case Look Ahead (What I wish I'd known - lessons learned from KSAR Initial Agreement projects) (July 2022)
- IPC Network Workshop Event: Project Stage by Stage Overview (Sept 2022)
- Assurance Service: OBC Lessons Learned and FBC Look Ahead (Oct 2022)
- Research Service: An introduction to research within NHSS Assure: opportunities, networks and ways to break down barriers (Oct 2022, March 2023)
- The NHSScotland Assure Key Stage Assurance Review from the Health Board's Perspective (April 2023)
- The NHSScotland Design Assessment Process (NDAP) - Lessons learned through a decade of use. (November 2023)
- Quality in Construction - Property and Capital Planning (April 2024)
- Building Resilience: Adapting Healthcare Systems to Climate Change (July 2024)
- Sustainability Environmental Management System (November 2024)
- What's the PPP point? (March 2025) (Public-Private Partnership)

NHSScotland Assure also facilitates a national conference which serves as an opportunity to have a learning event covering many topics in one venue. This conference, previously organised by HFS and now organised by NHSScotland Assure, is for Health Boards and wider organisations within the healthcare-built environment, to share the best available national and international knowledge and lessons learned. The last two conferences included significant input from ARHAI Scotland as well as traditional sessions on property and capital planning, architecture, engineering, and sustainability and facilities management. NSFG inputs to the conference agenda and speaker topics.

60. What examples are you able to provide of co-ordinated efforts through the SFG to transfer knowledge and lessons learned in respect of:
a) the procurement of new facilities;

b) management of IPCT; and
c) any other relevant aspects of healthcare builds via the SFG?

When providing examples, please comment on the efficacy, perceived or actual, of the process and the reception of health boards to the knowledge or lessons that have been shared.

A. It is important to note that since the launch of NHSScotland Assure we have delivered lessons learned presentations through various forums such as NSFG Subgroups, including Scottish Property Advisory Group (SPAG), Scottish Facilities Management Advisory Group (SFMAG), Scottish Engineering and Technology Group (SETAG) and NHSScotland Environmental Sustainability Group (NESG). Lessons learned form part of the agendas for SETAG and its subgroups and present a platform for sharing lessons learned and health and safety matters. Lessons learned, learning opportunities and other useful information have been disseminated through the following forums:

- The NHSScotland Assure Learning Network,
- NHSScotland Assure Conference, and
- IPC stakeholder groups.

We have also published a lessons learned paper from the work undertaken by the Interim Review Service and we are currently developing a new paper based on learning from the KSARs, due to be published in 2025. These are NHSScotland Assure initiatives, rather than NSFG initiatives.

The efficacy of the events stems from the fact that the sessions and events are co-developed with the governance groups.

Feedback from the Health Boards following learning network events, for example, has indicated that the sessions are well received, with success criteria scored up to 4.28 out of 5. We use these feedback scores to continually improve the scope and content of sessions.

61. What enforcement powers does the SFG have to make sure that health boards

respond to information and knowledge shared through the forum?

A. NSFG, as it is now known, has no enforcement powers. It is a voluntary and collaborative group.

62. Do you think that the SFG provides a sufficient forum for knowledge and lessons to be shared?

A. As discussed in previous paragraphs, the NSFG can signpost Health Boards to wider relevant information and learning forums that Boards can then use to inform and educate themselves.

Overall, the NSFG, and its associated sub-groups, are considered a useful forum for knowledge and lessons to be shared. Attendance and involvement in these groups and sub-groups is voluntary and therefore subject to senior Health Board participants' other ongoing commitments. However, attendance at this forum is prioiritised by most Health Boards.

63. What formal forums or structures are available for the distribution of knowledge and lessons learned where individual health boards commission reviews and/or reports in respect of:

a) The procurement of new facilities;

b) Management of IPCT; and

c) Any other relevant aspects of healthcare builds?

Please provide examples and provide comment on any awareness concerning the non-commissioning health boards incorporating lessons learned and acquired knowledge into their own practices.

A. NHSScotland Assure has had feedback from Health Boards on how valuable they have found the various learning opportunities and lessons learned sessions, which have been incorporated within Health Board practices. NHSScotland Assure runs sessions across various topics relevant to the healthcare-built environment. We aim to be responsive to Health Board requests; the formation of the learning network sessions being dependent on Health Boards' requirements at a particular moment in time.

It is important to note that NHSScotland Assure's lessons learned and information

sharing networks are for all Health Boards, irrespective of whether they are engaged in a current capital project.

NHSScotland Assure have identified an opportunity to further enhance this learning for Health Boards and wider stakeholders by:

- Expanding the scope of sharing of the lessons learned.
- Ensuring lessons learned opportunities are extended to include the private sector.
- Development of lessons learned framework, where capturing of lessons learned is embedded into assessment and advice services across NHSScotland Assure.
- Provision of a robust feedback loop for new projects on previous lessons.

64. What opportunities are available for staff to develop their interdisciplinary awareness and knowledge of the healthcare-built environment with colleagues from other health boards in respect of:

a) The procurement of new facilities;

b) Management of IPCT; and

c) Any other relevant aspects of healthcare builds?

Where examples are provided, please provide details of the agencies and organisations involved in overseeing the development opportunities. In the event of there being no formalised structures enabling knowledge transfer and staff interdisciplinary awareness, please provide examples of any plans that are in place to fill this gap.

A. NHSScotland Assure has facilitated training for colleagues across NHSScotland on the procurement of new facilities, management of IPCT and any relevant aspects of healthcare through our teams, including PSCP, Engineering, FM services and ARHAI Scotland. This takes various formats, including:

- Structured training delivered through the National Advisory Groups (for example we have recently commissioned training for National Groups on Medical Locations (SHTM 06-01), CIBSE Guide M (Commissioning); Electricity at Work Regulations).

- Continual Professional Development (CPD) type training through the National Advisory Groups - we work closely with the groups and wider industry to identify relevant topics.
- Through development of guidance and other technical materials, for example SETAG commissioned NHSScotland Assure to create a document for Health Boards on the Medium Plant Combustion Directive.
- We have provided "KSAR Surgeries" to NHSScotland IPC colleagues.
- We have created "learning animations" on key IPC topics, including wash hand basin hygiene, with further topics under development.

NHSScotland Assure currently provides Authorising Engineer (AE) Services to various Health Boards across NHSScotland. As part of this role, the AE can share specific learning with Health Board staff; this is an important link to estates colleagues. This is not mandated; Health Boards are free to choose their own AEs.

NHSScotland Assure has facilitated specific healthcare-built environment training to NHSScotland Assure IPC colleagues and are currently considering how this could be rolled out more widely to other Health Board IPC colleagues.

65. Following the issues at QEUH/RHC what actions and/or mechanisms, other than those discussed above, have been put in place, save for the creation of NHS Assure, which address the transfer of knowledge across health boards in respect of:

a) The procurement of new facilities;

b) Management of IPCT; and

c) Any other relevant aspects of healthcare builds?

A. The response to this question is detailed in the preceding paragraphs, with **Appendix D** giving further detail of learning events which NHSScotland Assure facilitates access for Health Boards. These events form a variety of learning and sharing opportunities related to risks within the healthcare-built environment and endeavor to encourage participation in learning opportunities for all Health Boards.

a) With reference to question 63 of your statement,

(i) What formal forums or structures are available for the distribution of knowledge and lessons learned for IPCTs?

A. There are several channels available for sharing new evidence, knowledge, and lessons learned within ARHAI Scotland. The organisation has six priority programmes, each supported by working groups and/or oversight groups. A key part of these groups' remit is to exchange individual experiences, challenges, and solutions relevant to their specific priority areas. However, this process depends on the willingness of group members to actively share their insights. The NIPCM is a live document which is updated in real time to reflect any lessons learned.

ARHAI Scotland also coordinates national alerts and briefing notes related to HAIs, which are disseminated via email.

In addition, there are three national groups — the Infection Control Manager (ICM), ICD, and Infection Control Nurse (ICN) groups — which meet regularly to facilitate knowledge exchange and collaboration.

HAI Executive Leads are supported by a formal forum that also promotes the sharing of knowledge and best practices.

The learning from the work undertaken through the KSAR process has facilitated the development of IPC resources, sharing learning with health boards through the publication of Notes for Board, NES animated education resources and IPC toolbox talks **(https://www.nss.nhs.scot/antimicrobial-resistance-and-healthcare-associated-infection/clinical-assurance/guidance-and-publications/).** Furthermore, ARHAI Scotland is currently undertaking an evaluation of IPC services provided through the KSAR process, with the aim of identifying future developments to assist the local IPC health board teams.

(ii) What was the output from the SNIF review which was submitted to ARHAI by the two IPC networks (ICM,ICD)?

A. SNIF (Scotland's National Infection Prevention and Control Forum) was established as a joint initiative between the ICM, ICN, and ICD groups, in

collaboration with ARHAI Scotland. The forum operated with rotating Chairs from each group, while ARHAI Scotland provided administrative support.

The group evolved from a successful weekly, and later monthly, COVID-19 meeting, which had proven valuable for sharing emerging evidence, policy updates, guidance changes, cluster reviews, and lessons learned across NHS Boards. Based on this success, it was agreed that an informal monthly meeting should continue.

The remit of the group within the Terms of Reference was agreed,

- “To provide multidisciplinary IPC collaborative forum to provide support and networking opportunities for IPC communities across NHSScotland.
- To support staff in these services and share learning and cross organisational links.
- To enable mutual sharing of IPC expert knowledge, horizon scanning, areas or suggestions for improvement and lessons learned across Scotland. Sharing of lessons learned are informal and do not replace existing reporting processes or requirements.
- The group will have no outputs or approval remit. The sole purpose of the group is to bring together the IPC community for information sharing and support.
- Where issues, concerns or topics are being considered by other national groups i.e. ARHAI Scotland working groups, it should be noted that the SNIF forum is not the primary route for feedback. Feedback should continue to go via the agreed communication and governance structures set up for the national group at which the discussion point is being considered”.

The group was set up in November 2024, and a review was conducted with all attendees in March 2025. The consensus was that the group’s purpose had become unclear and limited.

Concerns were raised by members of the ICM and ICD groups, who expressed frustration that issues brought to SNIF were not being adequately discussed or

resolved. ARHAI Scotland members also noted that some participants were using the forum to raise matters that bypassed established ARHAI Scotland governance structures and working groups. Additionally, there was a perception among some NHS Board representatives that SNIF was primarily an ARHAI Scotland-led meeting, which was not the case, as demonstrated above.

Following discussions with the rotating chairs, it was agreed that the group no longer served a distinct purpose. It was felt that the work currently being undertaken by the HAI Executive Leads, particularly around networking for senior IPC colleagues across Scotland, would be a more appropriate and effective forum moving forward.

NHS Assure Remit

66. Are you satisfied with the scope of NHS Scotland Assure's current remit and, in your view, if at all, how might this be enhanced?

A. NHSScotland Assure's current extended remit stems from the commission NSS received from the Scottish Government in 2019, to support the improvement of Quality in the Healthcare-Built Environment. NHSScotland Assure was developed from this aspiration, with an aim to provide assurance to the Scottish Government that current new builds and major refurbishment projects were:

- being delivered in line with extant NHSScotland guidance
- fit for purpose,
- and free from avoidable risk of harm.

67. Can you please produce the "commission received from the Scottish Government in 2019.

A. I provided detail about the commission received from the Scottish Government in my first witness statement. Paragraphs 9 and 10 describe this:
"On 27 May 2021, a "DL" letter from the Director of Health Finance and Governance, within SG, was sent to the NHS Health Board Chief Executives,

Directors of Finance, Nursing Directors and Directors of Estates and Facilities (**Hearing Commencing 26 February 2024, Bundle 9, Document 2, Page 70**). The purpose of the letter was to inform Health Boards of the development of NHS S Assure and its role.

An Interim Review Service was established within NSS and operated until NHS S Assure became operational in June 2021. The DL letter let the Health Boards know that NHSScotland Assure would be going live from June 2021. It also confirmed that NHS S Assure would comprise of a number of functions that would help ensure reduced risk in the healthcare-built environment. The letter explained that NHS S Assure would be accountable to SG and be hosted by NSS. Itfurther explained that it had been co-designed with Health Boards and other stakeholders, The Programme Board for the delivery of this new service consisted of a large number of stakeholders, including Health Boards and SG, who are listed in the Target Operating Model (TOM). The NHS S Assure role would encompass the lifecycle of a build from Initial Agreement (IA) to final decommissioning of a building, when it would no longer be viable for service delivery".

The Target Operating Model (TOM) in 2019-2021 proposed impact benefits and service outcomes as the framework for understanding NHSScotland Assure's performance and measures. A range of outcomes were proposed, to be delivered by 8 services:

- Compliance
- Research, development and innovation
- Intelligence
- Provision and co-ordination of subject matter expertise
- Guidance
- Workforce planning and development (for NHSScotland-wide capability)
- Response service
- Knowledge management and communications

68. Can you please produce the Target Operating Model (TOM) in 2019 - 2021.

A. The TOM was provided to the Inquiry as part of my first witness statement (**Bundle 9, Document 1, Page 4**).

The TOM highlights the importance of integration, a strong relationship between its services, and a holistic approach.
There are approximately 300 staff within NHSScotland Assure. Staff work within several specialised areas, made up of, but not limited to, highly skilled and experienced engineers, nurses, architects, healthcare scientists, facilities management professionals and capital project advisors. There are approximately 60 clinically qualified staff, comprising healthcare scientists, nurse consultants and IPC nurses. There are also approximately 115 technical experts such as engineers, capital project advisors, architects and sustainability specialists. NHSScotland Assure also employs 120 staff working within hard facilities management (capital infrastructure) and soft facilities management (for example, laundry, cleaning, catering etc.) and approximately 25 staff who are involved in areas such as decontamination, the mammography fleet and oxygen services **(Hearing Commencing 26 February 2024 - Witness Statements – Volume 1, Document 10, Page 237)**. NHSScotland Assure supports the planning of Health Board decontamination services and commissions the national home oxygen service for patients. Its medical physics service supports the Scottish Breast Screening Programme with safety advice, and NHSScotland Assure is also leading on the 'Once for Scotland' programme, for the continued delivery of these services.

NHSScotland Assure also has the remit of the pre-existing divisions of HFS and ARHAI Scotland. HFS provided operational guidance and support to NHSScotland bodies on various healthcare facilities topics. NHSScotland Assure's remit continues to include delivering and coordinating advice on national facilities, decontamination, equipping, and technical matters, to support and improve health and well-being services. NHSScotland Assure continues to work closely with the Scottish Government and NHSScotland Health Boards to establish professional and technical standards and best practices. ARHAI

Scotland is a clinical service offering national expertise in IPC, antimicrobial resistance (AMR), and HAI. ARHAI Scotland's mission is to reduce the burden of infection and antimicrobial resistance within Scottish care settings by establishing a robust evidence base for practice and building mechanisms for monitoring key priority areas. It continues to provide expert intelligence, support, advice, evidence-based guidance, and clinical leadership to local and national government, health and care professionals, and the public.

As part of our current remit, NHSScotland Assure have been working alongside the NHS in England (NHSE), through national devolved nations meetings. NHSE were considering developing a derogations process, however this work has not had outputs that are useful to NHSScotland. The devolved nations often work in a collaborative manner to ensure that process applies across the whole of the UK, where possible. Therefore, NHSScotland Assure have now established a small working group to develop a derogations process for the whole of the UK. This work will be tabled for agreement at the devolved nations meeting within the next financial year.

NHS Scotland Assure are also supporting BDaC (Building Design and Construction group) in the development of a ‘Once for Scotland’ briefing toolkit/ template. This work has been ongoing since an independent report on ‘Improving Briefing in NHSScotland Capital Projects’ was commissioned and produced by BDaC in 2022. The development of the work, including a minimal viable product of what the toolkit could look like, was discussed at the Scottish Property Alliance Group (SPAG) at the start of 2025, who have agreed to send a commission to NHSScotland Assure for consideration as to continuance of the work.

I am satisfied with the current remit of NHSScotland Assure as far as it relates to the commission received from the Scottish Government and the historic remit inherited through HFS and ARHAI Scotland. I do however recognise the need to continually review those remits holistically, to ensure continuous improvement in the way in which NHSScotland Assure deliver on the combined remit, so ensuring that NHSScotland Assure is supporting NHSScotland and its healthcare-built environment to be safe, fit for purpose, cost effective and capable of delivering

sustainable services over the long term. This will include the exploration of how we can better use the subject matter expertise across the organisation at all stages of asset development, delivery and management, as well as the identification of any knowledge gaps or service improvement opportunities. I also recognise the need to work closely with the Scottish Government to reconfirm our remit and ensure national governance is in place to allow us to undertake the remit assigned to us.

69. In the event NHS Scotland Assure offer support to a health board and it is refused, what powers of intervention, if any, do you have?

A. NHSScotland Assure is not a regulator. Healthcare Improvement Scotland (HIS) is the regulator for NHSScotland. NHSScotland Assure exists as a mechanism to support Health Boards to provide the best healthcare-built environment so that they understand their roles and responsibilities in that environment.

As such, NHSScotland Assure does not have any powers of intervention with Health Boards, other than issuing an unsupported status to a KSAR or NDAP, which would prevent a project being approved through the governance framework of CIG and NIB.

We are a national service that also provides responsive expert advice and support to Health Boards related to the healthcare-built environment. A proportion of the NHSScotland Assure workplan each year is made up of reactive work on behalf of the Health Boards. This type of work would include the response of NHSScotland Assure to the potential identification of RAAC in the NHS estate, support for Health Boards with the new process for Whole System Planning and ongoing work to support the Covid Inquiries in Scotland and the UK.

As noted above it is mandatory for Boards to engage with NHSScotland Assure when undertaking major capital build and refurbishment projects. NHSScotland Assure have the ability, where appropriate, to withhold support which can impact funding and the opening of projects **(DL (2023) 03 (Bundle 52, Volume 2, Document 14, Page 180))**. This authority allows us to ensure that healthcare facilities are assessed and that assurance on stringent safety and quality

standards is provided before they become operational. Whilst our primary role is to provide support and guidance to health Boards, and we are not a public facing service, our mandate to assess and seek assurance on compliance with standards means that, if necessary, and as facilitated through Scottish Government governance, we can effectively raise concerns on projects that do not meet the required criteria, which should provide reassurance to the public. This includes any IPC infection and outbreak issues that have not been reported in the correct manner to the Scottish Government. To date this is a very unusual occurrence, with most Health Boards complying with CEL and DL instructions.

70. Would such powers of intervention be beneficial? If no, why not?

A. NHSScotland Assure has a wide range of services, and we work with Health Boards in a collaborative relationship. It would not be appropriate for NHSScotland Assure to have intervention powers that would impact on this relationship based on collaboration and trust. A very large proportion of services that we provide are supportive and advisory for the Health Boards. We have built on that relationship as subject matter experts and as a source of advice and knowledge for Health Boards. Ultimately, it is a decision for Health Boards whether they take our advice or not across a significant majority of what we do. Usually, however, when Health Boards approach us for advice, it is because they require our support and expertise, and they trust that we will be able to provide a solution to their issue by working with them to mitigate or resolve the risks and issues that they have raised with us. Because of this collaborative approach, issues requiring escalation to the Scottish Government as described in the coming paragraphs are rare.

Whilst I recognise there may be a place for strengthening NHSScotland Assure's role in providing a supported or unsupported status for any live healthcare-built project in NHSScotland we do not think it would be possible or practicable for NHSScotland Assure to be involved in all small-scale projects below the delegated authority limits.

The practicalities of staffing levels and funding required to independently review all projects need to be balanced with the scale, value or complexity of the projects

being reviewed. I do not believe it would be possible or practical to review all projects below the delegated authority limits that each Health Board operates within. There are, however, a number of working routes for NHSScotland Assure to 'intervene' through formal or informal practice. NHSScotland Assure has the following escalation points when we are not supportive of the position of a Health Board.

NDAP: The ultimate 'escalation' under NDAP is that we do not provide the Health Board with a supported status and the Health Board would be made aware that a supported status would not be the outcome of the NDAP during the process. This would then prevent the Health Board securing business case approval through CIG. We can also informally raise issues with the Scottish Government before the formal CIG stage. The Scottish Government may then discuss the highlighted risks and issues with the Health Board.

The State of NHSScotland Assets and Facilities Report (SAFR) Annual Asset Management Returns: if a Health Board is not compliant with the request to complete this report NHSScotland Assure can escalate to the Scottish Government which will then liaise with the Health Board directly.

Capital projects: NHSScotland Assure can escalate non-compliance with Frameworks Scotland (which is mandated for certain projects), to the Scottish Government to formally intervene.

Capital projects: where NHSScotland Assure has concerns over any aspect of project delivery (for example, team, programme, governance, budget) this can be raised through CIG where NHSScotland Assure are members. This would then be considered by CIG and will either affect the recommendations or may even lead to unapproved status.

For some commissions we now use the NHSScotland Assure Service Level Agreement (SLA) and that does include a space for an escalation point from each party for any issues that cannot be resolved by the primary contacts. This is more used for one off type commissions e.g. the CHAS Hospice, or the support to HMP

Glasgow.
Equipping has its own SLA which is used on every project. Again, actual escalations are incredibly rare, and usually issues are resolved through discussion.

Public Private Partnerships Programme Team (PPP): NHSScotland is implementing Hand back Readiness Reviews which will provide NHSScotland Assure escalation to the National Infrastructure Board (NIB), although this process is still to be tested in practice.
KSAR unsupported status when escalated to the Scottish Government will result ultimately in a Health Board being unable to open their building to patients. This position is set out in DL 2023 (03)**.**

In a lot of cases where we have identified noncompliance with processes, or guidance, we rely on existing relationships with Health Boards and communication in person with them to resolve issues.

The 4 main routes of formal escalation within ARHAI Scotland are:

- Healthcare Infection Outbreak/Incident - Hospital Infection Incident Assessment Tool (HIIAT)
- Data Exceedance - Quarterly Epidemiological Commentary for the Surveillance of Healthcare Associated Infections in Scotland – Production of Quarterly Exception Reports (SOP)
- The National Support Framework 2017
- Escalation of Concerns (including Clinical Governance)**:** This would be carried out using internal escalation through line manager and clinical governance reporting structure within NSS - recognising the professional codes of conduct and practice and duty of care.

71. In the event where concerns are raised or recommendations made by NHS Scotland Assure, particularly in respect of the Key Stage Assurance Review (KSAR), what enforcement powers do you have, if any, to ensure compliance with

recommendations made?

A. **DL (2023) 03 (Bundle 52, Volume 2, Document 14, Page 180)** states ″This DL covers the commissioning, completion, and handover part of the process and notifies you that all building projects going through a KSAR, should not open to patients or the public until you receive a 'supported status' from NHSScotland Assure.″

There are conditions for commissioning, completion and handover within the KSAR of healthcare builds. A Health Board is unable to admit patients to a building and perform clinical activities until a supported status for the KSAR is given by NHSScotland Assure and approved through the Scottish Executive Health Department Capital Investment Group (SCIG) process. This will ensure that all six areas (water and drainage, ventilation, medical gases, electrical and fire) covered by the KSAR process are safe for patients, visitors and staff.

When supported status, as per **DL (2023) 03 (Bundle 52, Volume 2, Document 14, Page 180)**, has been achieved for the Commissioning and Handover KSARs, and the responsible Health Board is content for the building to open, the Senior Responsible Officer sends a copy of the report to the Chair of SCIG, for information.

The NDAP process is also mandated under CL 19 (2010), and Health Boards would not be able to proceed with a project unless a supported NDAP is completed. An NDAP review takes place at each business case stage and the supported/unsupported status is reported to the Health Board as part of a report containing recommendations.

The report is then verified by the Health Board confirming agreement to adopting and implementing the recommendations.

The NDAP is then considered as part of the business case submission to the Capital Investment Group (CIG) to be reviewed. Typically, a business case would not be approved for a Health Board to proceed without a supported NDAP; however, this is ultimately a decision for CIG.

The NDAP process currently concludes at Full Business Case stage, this is being reviewed to understand whether it would be beneficial for it to continue into construction and handover phases of a project.

72. In your view would such powers be beneficial? If not, why not?

A. Any additional powers would need to be carefully considered in terms of Health Boards responsibilities, NHSScotland Assure capacity and remit and the intention to review NHSScotland Assure TOM by the Scottish Government who commission our role and remit. Therefore, although it may be beneficial to have powers that ensure Health Boards share the information requested by NHSScotland Assure services, which would allow a more informed response to the Scottish Government and CNOD from NSS, I do not believe NHSScotland Assure is currently commissioned to deliver any such change in model without a review of the totality of service provision and commission by the Scottish Government.

Conclusion

73. Is there anything further which you wish to add that you think may assist the Inquiry?

A. I hope the Inquiry finds this statement helpful and there is nothing further I wish to add.

Declaration

74. I believe that the facts stated in this witness statement are true. I understand that this statement may form part of the evidence before the Inquiry and be published on the Inquiry's website.

The witness was provided access to the following Scottish Hospital Inquiry bundles/documents for reference when they completed their statement.

The witness was provided access to the following Scottish Hospital Inquiry bundles/documents for reference when they completed their statement.

Appendix A

A43255563 – Bundle 1 – Incident Management Team Meeting Minutes (IMT Minutes)
A37521453 – Bundle 3 – Governance – Volume 3 (of 3)
A37525665 - Bundle 4 – Single Bed Derogation
A46005509 - Bundle 9 - Documents relevant to NHS Assure
A47168969 – Bundle 13 – Miscellaneous – Volume 3
A47232226 – Bundle 13 – Miscellaneous – Volume 7
A43962726 – Bundle 15 – Additional Supporting Documents from NHS Lothian
A48408984 – Bundle 19 - Documents referred to in the Quantitative and Qualitative Infection Link expert reports of Sid Mookerjee, Sara Mumford and Linda Dempster
A49240403 - Bundle 21 – Substantive Core Participant responses to Dr Walker Report – Volume 2
A49799834 – Bundle 27 – Miscellaneous Documents - Volume 4
A53511130 – Bundle 51 – Sir Robert Francis Whistle-blowing Expert Report and supporting documents
A53674650 – Bundle 52 – Miscellaneous Documents – Volume 1
A53671356 – Bundle 52 – Miscellaneous Documents – Volume 2
A53745096 – Bundle 52 – Miscellaneous Documents – Volume 3
A47231435 – Hearing Commencing 26 February 2024 – Witness Statements – Volume 1
A49847577 – Witness Bundle - Week Commencing 26 August 2024 – Volume 3
A49968596 – Hearing Commencing 19 August 2024 – Day 13 – 6 September 2024 Laura Imrie

The witness provided the following documents to the Scottish Hospital Inquiry for reference when they completed their statement.

Appendix B

A37207378 - Bundle 3 – Governance – Volume 3 (of 3)

A34253738 – Bundle 4 – Single Bed Derogation

A43494369 – Bundle 9 – Documents relevant to NHS Assure

A32341688 – Bundle 9 – Documents relevant to NHS Assure

A33662490 – Bundle 13 – Miscellaneous – Volume 3

A32375006 - Bundle 13 – Miscellaneous – Volume 5

A42408714 – Bundle 15 – Additional Supporting Documents from NHS Lothian

A48852131 – Bundle 21 – Substantive Core Participants responses to Dr Walker Report – Volume 2

A53244263 - Bundle 52, Volume 1 – Miscellaneous Documents

A48699683 – Bundle 52, Volume 2 – Miscellaneous Documents

A52458811 – Bundle 52, Volume 2 – Miscellaneous Documents

A52458813 - Bundle 52, Volume 2 – Miscellaneous Documents

A52458469 - Bundle 52, Volume 2 – Miscellaneous Documents

A52458339 - Bundle 52, Volume 2 – Miscellaneous Documents

A50778503 - Bundle 52, Volume 2 – Miscellaneous Documents

A52458336 – Bundle 52, Volume 2 – Miscellaneous Documents

A44253156 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459163 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459158 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459154 - Bundle 52, Volume 2 – Miscellaneous Documents

A33662466 – Bundle 52, Volume 2 – Miscellaneous Documents

A52459148 - Bundle 52, Volume 2 – Miscellaneous Documents

A51859105 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459117 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459114 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459038 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459035 - Bundle 52, Volume 2 – Miscellaneous Documents

A52459148 - Bundle 52, Volume 2 – Miscellaneous Documents

A45691768 - Bundle 52, Volume 2 – Miscellaneous Documents

A44607793 – Hearing Commencing 26 February 2024 – Witness Statements – Volume 1

Appendix C – Julie Critchley CV

Julie Critchley

[redacted]

Profile

As a clinician and change agent I am committed to providing high quality, effective and efficient services and structures that give best value for money. I understand the correlation between well supported committed staff and high quality person centered service delivery.

Key Skills

- Credible leader with excellent interpersonal and communication skills
- Demonstrable history of complex service transformation
- Strong people and performance management skills
- Ability to deliver quality services within tight fiscal environment
- Values driven performance
- Demonstrable experience at Board level in an NHS Foundation Trust

Career History

National Services Scotland - NHS Scotland

Assure **September 2021 –**

Date Director NHS Scotland Assure

Director of NHS Scotland Assure is a new post and a new service, which has been co-designed with users. NHS S Assure was brought into being to deliver a co-ordinated approach to improve the risk management in new build and refurbishment projects across NHS Scotland. The new service underpins a transformation in the

holistic approach to minimising risk in our healthcare buildings and environments, protecting patients from the risk of infection and supporting better outcomes for patients in Scotland. The services incorporate existing services such as Capital Planning, Engineering and Facilities Management with clinical input via Antimicrobial Resistance and Healthcare Acquired Infection and enhanced service input such as Research and Assurance services.

We work with all the Health Boards within Scotland on their new build and refurbishment aspirations, verifying their outputs so that their Boards can have some degree of assurance that their builds will be compliant with the latest guidance and provide their patients and staff with an excellent healthcare build environment.
I am accountable via National Services Scotland to Scottish Government and my services aim to provide assurance that the Healthcare build is safe, fit for purpose, cost effective and capable of delivering sustainable services over the long term.
We will work with SG in prioritising work programmes jointly that will deliver a great healthcare environment for Scotland

Salford Royal NHS Foundation Trust **June 2019 – September 2021 Head of Clinical Disaggregation and Due Diligence**

My previous role was Head of Due Diligence and Clinical Disaggregation for the NHSI facilitated mandated transfer of Pennine Acute Trust into Salford Royal Foundation Trust and Manchester Foundation Trust, a transaction of approximately £600million with 10,000 staff. This transfer was initiated due to the continuing unsustainability of Pennine Acute Trust. This transaction formally allowed the majority of Pennine Acute Trust, Royal Oldham Hospital, Fairfield Hospital and Rochdale Infirmary to transfer across to SRFT with North Manchester General Hospital transferring to Manchester Foundation Trust under the same transaction umbrella.
I was responsible for all aspects of Due Diligence for the transaction including, Finance, Estates, Commercial, Taxation, Clinical, Workforce, IT, Contracting and Equipment for all services provided by Pennine Acute services. I was also responsible for the Clinical Disaggregation and pathway provision for this very complex transaction. The safe disaggregation of all clinical services provided on the North

Manchester General Hospital, Fairfield General Hospital, Oldham Royal DGH, Rochdale Infirmary is the most important aspect of this transaction, and it is paramount that robust pathway provision and safe transfer of clinical services was ensured. This transaction is particularly complicated as it is both a transfer and a carve out transaction with a time limited residual legacy organisation post transfer.

I worked closely with a number of key internal and external stakeholders including Manchester Foundation Trust, Commissioners, Local Authority, Regulators NHSI and NHSE, staff groups and Pennine Vendor. The transfer of these services enhanced quality service delivery and allowed for improvement of services that were highlighted as requires improvement or inadequate in previous CQC inspections.

Wrightington, Wigan and Leigh NHS
Foundation Trust **Jan 2017 – June**
2019 Integration Programme Director

This was a new role intrinsic to Wrightington, Wigan and Leigh NHS Foundation Trust (WWL) with a budget of [redacted] and 4500 staff committed to becoming a key partner in integrated service delivery and the development of a Local Care Organisation in Wigan. Strategically I was responsible for optimising the relationship between WWL and other stakeholders within the Wigan health and social care economy and the wider Greater Manchester (GM) region. I was involved in the development and implementation of a Wigan Local Care Organisation and sat on the Healthier Wigan Partnership Board. I also led for WWL, with the Deputy Director of Finance, on health and social care bids into Greater Manchester Transformation Programme.

My main remit was responsibility for the NHSI governed transition and transformation of all Adult and Children's Community Service provision from the incumbent Community Provider to WWL, a transaction of [redacted] with 1000 staff.. This role necessitated the utilisation of significant negotiation and influencing skills to bring together disparate organisations and regulators with diverse drivers and priorities.

Concurrently I led, with the Strategic Project Director, on 4 capital bids to enhance theatres and outpatients provision at Wrightington Hospital, expand A&E services at Wigan, collocate GP streaming at Wigan Infirmary and build with Wigan Borough

Council an 85 bed step up step down facility in Leigh. In support of the expansion of Orthopedic surgery into Wrightington Hospital, I reviewed all support services and reconfigured MSK CATS triage service and RTT performance, which is above, mandated performance targets. By continuously reviewing and improving pathways WWL maintained an above target trajectory for RTT within the Trust and maintained compliance with all associated targets.

Having led on the development and operation of the most successful GP streaming service within GM, I was asked by Wigan Borough CCG to review all of CCG non-GMS contracted GP activity and produce an options appraisal paper around the future of Extended Hours, Out of Hours provision and Walk in Centre provision. The recommendations within this paper have been operationalised and will improve efficiency, reduce spend and improve patient experience.

Cheshire and Wirral Partnership
NHS Trust **May 2015 – Jan 2017**
Transformation Director

This post came into place to support the NHS New Models of Care initiative. The main duties and responsibilities related to the development of a Multi-Specialty Community Provider for Western Cheshire and to inform the transformation of service delivery in partnership across Western Cheshire. As such communication and leadership skills were at a premium working with a diverse set of stakeholder some of whom had conflicting drivers and targets.

The remit of this post was to formulate and operationalise the strategic direction of CWP within Western Cheshire and to respond to National Initiatives

My primary connections were with the Acute Trust, GP networks and Primary Care leads, the CCG and Social care. As a team the Director of Operations from the Acute Trust, the Chair of the GP consortia and the Director of Commissioning for the CCG and I worked together on the submissions for transformation of our service delivery in line with Vanguard aspirations to integrate Community, Primary Care and Mental Health provision.

Cheshire and Wirral Partnership NHS Trust **December 2014- May 2015 Director of Operations**

I covered the Director of Operations post for Cheshire and Wirral Partnership NHS Trust whilst the incumbent was on planned Sick leave.

The Director of Operations is an Executive member of the Trust Board and reports directly to the Chief Executive as such I was responsible for the day to day operational management and service delivery of care to patients, delivering on the operational management of CWP whilst improving quality within financial constraints. I was also responsible for working in collaboration with other stakeholder across the whole of the CWP footprint to provide services that are responsive to patient need against a diverse set of drivers and organisational priorities.

The Trust delivers a wide range of Mental Health, rehabilitation and physical health services with a clinical staff base of 3000 and budget of [redacted]. I had responsibility for the delivery of and achievement of performance targets and compliance with national and local contracts and initiatives. I was also responsible for the cohesive delivery with partners across wide and diverse geographic area - delivering services in over 90 different locations across a wide geography to a population of over 1million. In addition, I was responsible for the operational management and delivery of all clinical services, working with the other executive directors and the governors of the Trust to provide person centered care.

Cheshire and Wirral Partnership Trust **April 2011- Dec 2014 Service Director**

As Service Director I was totally responsible for the clinical and financial delivery of all services provided by CWP to the population of West Cheshire. My budgetary responsibly was [redacted] with 1500 clinical staff providing services across Western Cheshire. The services included acute Mental Health Wards both Adult and Children's services, Rehabilitation and Learning Disability wards, Community Mental Health Teams and services interfacing with the acute sector such as Hospital Alcohol

services and Psychiatric liaison team. CWP West is unique within our organisation as I was also responsible for all Physical Health services delivered within a community setting, these included GP practices, GP Out of Hours, GP extended hours, integrated health and social care community teams, integrated acute, community and social care intermediate care provision and integrated therapy provision for which we had joint management posts with acute care reporting into myself and the Director of Operations for the Acute Hospital. Child and Adolescent Mental Health services have also been enhanced during my tenure with the tendering and building of a bespoke [redacted] Unit for children's Mental Health services that allows us to incorporate acute and sub-acute ward provision and a base for community teams and school provision. It allowed us to approach the expected tendering of service by NHS England with confidence for the future and provides fantastic outcomes for those vulnerable children who are in our care.

I was also responsible for coordinating and preparing services for any statutory inspections including MH and CQC for which the Trust overall achieved a rating of Good with Outstanding for Care.

I was also the Trust Emergency Accountable Officer and as such was responsible for the Emergency Planning readiness and response across the Trust.

Early career

Associate Director of Governance and Quality -
Community Care Western Cheshire (07/2009- 04/2011)
Deputy Managing Director –CCWC (07/2007-07/2009)
Commissioning Manager Older Person
Services – CCG secondment (07/2005-
07/2007) Podiatrist and Podiatry Services
Manager (1992-2005)

Education

Nye Bevan Programme – NHS Leadership Academy

MBA – Liverpool University

Advanced Medical Leader – British Association of Medical Managers

Degree in Podiatric Medicine – Westminster University

HCPC registered

Appendix D

NIPCM Timeline 2012-2024

Date	Version	Changes
13 January 2012	**Launch of version 1.0 of NIPCM.**	Initial chapter 1 which was 10 SICPs and Appendix 1-9.
December 2012	**Version 2.0**	Amended after Hospital (ICN leads) consensus meeting on 1 November 2012. • General updating of wording and examples throughout document. • Inclusion of statement around the launch of the manual. • Inclusion of statement explaining this is the practice guide for all care settings. • Inclusion of reference to the literature reviews. • Inclusion of disclaimer. • Additional responsibility added related to incident reporting. • Further details around patient placement including if had hospitalisations abroad in last 6 months. • Hand hygiene updated to include using personal dispensers, use of soap and

		water, using antimicrobial hand wipes and using emollients for skincare. Skin care updated to include reference to drying hands. • Respiratory hygiene updated to include reference to wipes.

Date	Version	Changes
		• PPE updated to include disposing of PPE in waste bin, addition of term ‘fluid repellent coveralls’. • Management of care equipment addition of explanation of what single use means and reference to sterilised packaged items. Reference to storing items clean and dry. Addition of point around contacting IPCT prior to procuring, trialling or lending any reusable care equipment. • Linen updated to include segregation during patient transfer, not placing extraneous items in laundry receptacle and tagging of infectious linen. • Occupational exposure updated to include reference to limiting sharps handing and not resheathing needles. • Appendix 5 glove selection updated around the wearing of sterile/non-sterile gloves for invasive procedures or as a sterile field and gloves for environmental cleaning. • Appendix 7 decontamination of reusable patient care equipment updated to include space for contact details for IPCT team. Addition of boxes for adding in dilution and products locally. • Appendix 8 management of blood and body fluid spillages updated to include space for contact details for IPCT team. Addition of boxes for adding in dilution

		and products locally. • Appendix 9 management of occupational exposure incidents updated to include space for contact details for IPCT team. Update to box when skin/tissue is affected to reference use of pre-packed solutions where water not available.
January 2013	2.1	Amended after Hospital (ICN leads) consensus meeting 9 January 2013

Date	Version	Changes

		• General updating of wording and examples throughout document.
		• New final paragraph in Introduction regarding the literature reviews being used for recommendations.
		• Disclaimer updated to include reference to risk assessment.
		• Addition of new appendices
		  • Appendix 8 - Decontamination status certificate
		  • Appendix 9 - Procuring, trialling or lending any reusable non-invasive patient care equipment
		  • Appendix 10 - Management of linen at care level
		  • Appendix 12 - Management of waste at care area level.

October 2013	**2.2 Consultation**	**Consultation version issued to consensus and any other groups to trial and amend for the inclusion of Chapter 2 TBPs and associated appendices.** Inclusion of: • Appendix 14 - Infectious agents and/or disease of HAI concern in NHSScotland requiring additional infection control measures: Transmission Based Precautions and

		• Appendix 15 - Do I need facial or respiratory protection. • Glossary
4 April 2014	**V2.3**	**Version issued to NHS boards to trial after v2.2 consultation comments had been considered and changes made.**

Date	Version	Changes
		• General rewording and reformatting throughout. • Inclusion of Chapter 2 – TBPs, appendix 14 infectious agents and/or disease of HAI concern in NHSScotland requiring additional infection control measures, glossary. • Inclusion of statement in introduction 'The national manual is mandatory for NHS employees and applies to all NHS healthcare settings. In all other care settings the content of this manual is considered best practice.' • Managers responsibilities. Removed the line around following guidance on PPE. • Update of disclaimer to include care home. • Patient placement updated to include patients who have previously had an MDRO. • 1.2 Hand hygiene updated to say that wipes cannot be used by staff in hospital or care home for hand hygiene unless there is no running water available. • 1.3 Cough and respiratory hygiene updated so say that wipes cannot be used by staff in hospital or care home for hand hygiene unless there is no running water available. • 1.5 Safe management of care equipment updated with additional information on

		the using single-use devices. • 1.7 Linen updated to advise that clean linen deemed unfit for reuse should be disposed of locally or sent back to the laundry for disposal. • 1.9 Waste updated to reference The Health and Safety (Sharp Instruments in Healthcare) Regulations 2013. Updated segregation information for domestic

Date	Version	Changes
		waste. Updated information for disposal of sharps boxes to be manufacturers fill line. • 1.10 Occupational Exposure updated to reference The Health and Safety (Sharp Instruments in Healthcare) Regulations 2013. Sentence included around the risk of getting a BBV from an occupational exposure.
January 2015	**2.4**	• Section 1.7 –recommendation updated so that that linen deemed unfit for re-use should be returned to the laundry for disposal rather than being disposed of locally. • Chapter 2. Transmission Based Precautions the distance for droplet precautions has been changed from “less than 3 feet (1 metre)” to “at least 3 feet (1 metre)”. • Addition of section 2.5 ‘Infection Prevention and control during Care of deceased’. • Appendix 14 - Inclusion of Viral Haemorrhagic Fever. • Addition of Appendix 15 - Key Infections from HSE Guidance “Controlling the risks of infection at work from Human Remains”.

Date	Version	Changes

December 2015	**2.5**	• Section 1.4. PPE. Update to theatre headwear section to say 'Changed/disposed of between clinical procedures/tasks or if contaminated with blood and/or body fluid'.
		• Glossary:
		  • Addition of Hazard Group 4
		  • Fluid repellent changed to fluid resistant
		  • Definition of outbreak changed
		• Surgical face masks definition changed to include IIR masks.
		• Appendix 3 – Surgical Scrubbing – Inclusion of footnote 1 on use of surgical sponge between fingers and 2 on repeating steps 1-5 to the forearms.
		• Appendix 10 – Management of linen at care area level. Inclusion of Linen bagging and tagging guidance.
		• Appendix 14 – List of infectious agents and/or diseases that require TBPs in addition to SICPs.
		Inclusion of 'until resolution of symptoms' in the Optimal patient placement box
		Inclusion of 'e.g respiratory secretions' in the Surgical Facemask box.

April 2016	**3.0**	**This is the version that was used for the first version of the NIPCM website which was launched in April 2016** • Section 1.2 – Hand hygiene Addition of statement for moment 2 ‘If ABHR can’t be used then antimicrobial soap should be used.’

Date	Version	Changes
		Skin care. Removal of word ‘breaks’ when referring to when to use emollient hand cream. • Section 1.4 – PPE - Footwear New bullet added Footwear must be: Able to either withstand machine washing at 40°C or disinfection with a chlorine releasing agent. • Section 1.5 – Decontamination of patient care equipment Addition of text to replace Appendix 8 – Decontamination status certificate and Appendix 9 – Procuring, trialling or lending any reusable non-invasive care equipment. Addition of text ‘Guidance may be required prior to procuring, trialling or lending any reusable non-invasive equipment. (This text replaces the blank Appendix 9 – Procuring, trialling or lending any reusable non-invasive care equipment)’. • Section 1.9 - Waste Addition of text ‘Local guidance regarding management of waste at care level may be available.’ This text replaces the blank appendix 12 Management of waste at care area level’ • Section 1.10 – Management of occupational exposure incidents

		Inclusion of new sentence ‘Always dispose of needles and syringes as 1 unit.’ • Appendix 1 – How to hand wash Addition of asterisk*Any skin complaints should be referred to local occupational health or GP.

Date	Version	Changes
		• Appendix 3 – Surgical scrubbing Addition of new sentence. Undertake Appendix 1 prior to starting scrub. Image 4 updated with the words 'using a rotational method' • Appendix 9 – Management of blood and body fluid spillages Addition of asterisk to say 'All NHSScotland settings must use granules or equivalent product e.g spill kits'. • Appendix 11 – Aide memoire for patient placement considerations and respiratory protective equipment (RPE) and fluid resistant surgical facemasks (FRSMs) for infectious agents. Addition of extra wording in Footnote 4. Induction of sputum (not including chest physiotherapy).
September 2016	**3.1**	**Addition of Chapter 3 – Healthcare Associated Infection Outbreaks and Data Exceedance. This chapter was not mandatory at this stage and was being used and reviewed by the Steering Group prior to launch in 2017** • Appendix 7 – Decontamination of reusable non-invasive care equipment Rewording of 3rd bullet in left hand side box to now read. "Disinfect specific items of non-invasive, reusable, communal care equipment if recommended by the manufacturer e.g. 70% isopropyl alcohol on stethoscopes".

		This is changed from "Disinfectants may be used routinely to decontaminate specific items of non-invasive, reusable, communal care equipment if recommended by the manufacturer e.g 70% isopropyl alcohol on stethoscopes."

Date	Version	Changes
		Replacement of 3rd bullet at the bottom of the middle and right hand side box with an asterisk that reads. *If the item cannot withstand chlorine releasing agents consult the manufacturer's instructions for a suitable alternative to use following or combined with detergent cleaning. This replaces the bullet that read " If the item cannot withstand chlorine releasing agents consult the manufacturer's instructions for a suitable alternative e.g 70% isopropyl alcohol. • Section 1.2 – Hand Hygiene Inclusion of new bullet point where reference to when to wash hands with non-antimicrobial soap. Wash hands with non-antimicrobial soap if: • caring for patients with vomiting or diarrhoeal illnesses; or • Section 2.4 – PPE - RPE Addition of National Minimum Risk Categorisation for HCW fit testing with FFP3
December 2016	**3.2**	• Update to definitions in Chapter 3.

6 December 2016	**3.4**	• All references to Healthcare Associated Infection Incident Outbreak Reporting Template removed and replaced with Healthcare Infection Incident Outbreak Reporting Template. • Chapter 3 Title changed to 'Healthcare Infection, Incident, Outbreak and Data Exceedance.'

Date	Version	Changes
		Introduction**.** Healthcare settings changed to 'health and other care settings.' • Appendix 12 – HIIAT Calculate the Impact. Scoring now changed to allow 1 moderate to be HIIAT Green Part 2- Communication. Bullet point 2 GREEN now reads: Only inform HPS if support/expert advice is required or there is an accompanying press holding/ release/ pro-active statement. Part 2 – Communication bullet point – 'a HIIORT is not required' is removed. • Appendix 13 - HIIORT Red box instruction page 1 changed to – **'**Complete within 24 hours for all HIIAT Red and Amber; for HIIAT Green complete only if accompanied by a press statement (holding, release, proactive) and/or HPS support requested.' Red box instruction page 2 changed to – 'Complete this update section weekly as a minimum or as agreed with IMT and HPS for onward reporting to SGHSCD.'
February 2017	**3.5**	• Final changes made to Chapter 3 from comments from steering group.
March 2017	**3.6**	• Incorporation of Chapter 3 with comments from Steering Group. • Section 1.9 Waste. Taking out of the word 'infectious' under Orange Waste

3 April 2017		**Launch on 3 April 2017 of Chapter 3 – Outbreaks and Incidents.** The additional appendices and resources are: **Revised Appendices** • NHSScotland Alert Organisms/Conditions list

Date	Version	Changes
		• The Healthcare Infection Incident Assessment Tool (HIIAT) • The Healthcare Infection Incident Outbreak Reporting Template (HIIORT) **Additional Resources** • Generic Outbreak checklist • Draft agenda for an IMT • SBAR report template • Full IMT report template • Incident/Outbreak data collection tool • Hot Debrief A-Z of pathogens launched at same time

July 2017	**3.7**	• Introduction: Minor changes in wording to include health and social care integration.
		• 3.2.2 Inclusion of the line ‘The resources section is not mandatory but can be used as a supporting tool for the NIPCM.’
		• Appendix 11. Amendments to footnotes and inclusion of pathogens
		  • Acinetobacter baumannii
		  • Bacillus anthracis
		  • Bacillus cereus
		  • Carbapenemase producing Enterobacteriaceae (CPE)

Date	Version	Changes
		• Corynebacterium diphtheriae • Enterovirus D68 • Hepatitis A virus • Legionella • Novel coronavirus • Panton Valentine Leukocidin (PVL) – positive Staphylococcus aureus • Pseudomonas aeruginosa • Stenotrophomonas maltophilia • Vancomycin-resistant Enterococci (VRE) • Vero cytoxin-producing Escherichia coli (VTEC) • Appendix 13 – Line updated to say 'Unless otherwise stated, one case would require an IPCT or HPT review to advise SICPs and TBPs have been followed and continue to be applied as part of routine Public Health response (when dealing with a case).' • Appendix 14 – HIIAT. Update to text in Part 2 for Amber to say 'Review and report HIIAT at least weekly or as agreed between IMT and HPS.

		• Appendix 15 – HIIORT. Update to text box for Section 6 to say ‘Complete this update section weekly as a minimum if Red or Amber or as agreed with IMT and HPS for onward reporting to SGHSCD.

Date	Version	Changes
October 2017	**3.8**	• Document Information grid. Update to include 'and Chapter 3 Healthcare Infection incidents, outbreaks and data exceedance. It is planned to further develop the content of the manual.' • Introduction**.** Inclusion of new paragraph. 'The manual has subsequently been endorsed by the Chief Medical Officer (CMO), Chief Pharmaceutical Officer (CPO), Chief Dental Officer (CDO) and Chief Executive Officer of Scottish Care.' • Responsibilities Organisations must ensure. Change 3rd bullet to include 'including near misses' Managers of all services must ensure that staff: Change 2nd bullet to include 'if this cannot be implemented a robust risk assessment must be undertaken and approved through local governance procedures. Change to 5th bullet to include 'including near misses e.g sharps or PPE failures.' IPCTs and HPTs must: Change to 2nd bullet to say 'including the HIIAT/HIIORT ensuring actions are taken following completion of HIIAT' Inclusion of new bullet. 'Complete documentation when an incident/outbreak or data exceedence is reported.'

		• Disclaimer. Inclusion of ‘approved through local governance procedures.’ • Section 1.2 Hand Hygiene

Date	Version	Changes
		Inclusion of new paragraph 'Hand washing sinks must not be used for the disposal of other liquids (See Appendix 3 of the Pseudomonas guidance).' In the paragraph 'Hand wipes should not ' the inclusion in the second sentence of the words 'In this circumstance.' • Section 1.4 Personal Protective Equipment (PPE) Inclusion of new bullet point 'not be impeded by accessories such as piercings/false eyelashes.' • Section 1.7: Safe Management of Linen Inclusion of reference to the National Guidance for Safe Management of Linen in NHSScotland Health and Care Environments For laundry services/distribution • Section 1.10 Occupational Safety: Prevention and Exposure Management (including sharps) 3rd paragraph addition of word 'recapped' 5th paragraph inclusion of 'If a safety device is being used safety mechanisms must be deployed before disposal. Inclusion of sentence. 'There is a legal requirement to report all sharps injuries and near

		misses to line managers/employers.' Footnote 4 updated to say 'A local risk assessment is required if re-sheathing is undertaken using a safe technique for example local anaesthetic administration in dentistry.' • Section 2.4 – PPE: RPE

Date	Version	Changes
		Inclusion of new sentence in second paragraph. ‘If the hazard is unknown the clinical judgement and expertise of IPC/HPT is crucial and the precautionary principle should apply.’ Inclusion of new paragraph. ‘The decision to wear an FFP3 respirator/hood should be based on clinical risk assessment e.g task being undertaken, the infectious state of the patient, the presenting symptoms, risk of acquisition and the availability of treatment.’ Inclusion of new paragraph: Powered hoods must be: • Single use (disposable) and fluid repellent • The filter must be enclosed with the exterior and the belt able to withstand disinfection with 10,000 ppm av Chlorine • Glossary Addition of new terms • Mucocutaneous exposure • Non-intact skin • Non-intact skin exposure • Safer sharp • Sharps incident

		• Significant sharps incident • Significant occupational exposure Update to existing terms • Recapping/Re-sheathing • Sharps

Date	Version	Changes
		• Sharps injury • Appendix 10 – Management of occupation exposure incidents Update to first bullet in the bottom box to now include ‘For investigation this should be proportionate to the potential severity of the incident.’ • Appendix 11 - Update to title to ‘Optimal patient placement and RPE requirements for Infectious agents.’ Update to introductory text. Update to Footnote 3.

February 2018	**3.9**	• Chapter 1.9 – Waste Updated to ensure follows SHTN3. Under section 'Safe waste disposal at care area level' the reference to liquid waste has been changed to 'placing in an orange lidded leak-proof bin' instead of 'placing in a healthcare waste bag'. • Chapter 2 Inclusion of further details on patient placement (Chapter 2.1) and management of care environment (Chapter 2.3) by hospital, care home and primary care/outpatient settings and PPE/RPE (Chapter 2.4) giving further detail on respirator use and removal. • Appendix 8 – Management of linen at care area Update made to asterisk in the inner bag column for heat labile laundry. It now includes ‘Colour coding for personal laundry bags may vary locally’. • Appendix 10 - Management of occupation exposure incidents Change to guidance for contact lenses.

Date	Version	Changes
		• Appendix 11 - Optimal patient placement and RPE requirements for Infectious agents Changes to the layout and content which is an ‘Aide Memoire for optimum patient placement and Respiratory Protective Equipment (RPE) for infectious agents whilst a patient is in hospital’.
March 2018	**3.10**	• Chapter 2.3 – Safe management of the care environment The requirement for 'twice daily' decontamination has been changed to 'at least daily' and now reads. 'Patient isolation/cohort rooms/area must be decontaminated **at least daily**, this may be increased on the advice of IPCTs/HPTs. These areas must be decontaminated using either:' The word 'Vacated' has also been added and now reads 'Vacated rooms should also be decontaminated following an AGP'.
April 2018	**3.11**	• Chapter 1.7 – Safe management of Linen In the section Clean Linen the third bullet point has been removed. 'Clean linen that is deemed unfit for re-use e.g badly torn, should be disposed of locally or returned to the laundry for disposal' and replaced by 'All linen that is deemed unfit for re-use e.g torn or heavily contaminated, should be categorised at the point of use and returned to the laundry for disposal.'

Date	Version	Changes
July 2018	**3.12**	• Section 2.3 Safe management of patient care equipment in an isolation/cohort area Last paragraph inclusion of 'theatre recovery'. Bullet 5 – Change of wording from 'usually about' to 'a minimum of' • Section 2.4 Safe management of the care environment National Minimum Risk Categorisation' changed to 'National Priority Risk Categorisation' Sentence beginning 'All tight fitting RPE; changed to 'Powered respirator hoods' • Section 2.5 Infection prevention and control in care of the deceased Paragraph 3 word 'harbouring' changed to 'have' • Appendices Titles updated to include: 1-11 – Best practice 12-15 –Mandatory Appendix 14 – HIIAT Inclusion of paragraph in table for Part 2. 'Following assessment by the NHS Board and HPS one collective HIIORT may be submitted for instances where multiple areas within a site are affected by the same infection such as seasonal influenza.'

		Inclusion of Addendum for Infection Prevention and Control within Neonatal Units (NNUs)

Date	Version	Changes
August 2018	**3.13**	• Changes made to Addendum for Infection prevention and control within neonatal units (NNU) 4.1 Placement of neonates/assessment for infection risk. The first sentence now includes '(this is currently under review)' when referring to the Assessment for infection risk. The link to the 'Assessment for infection risk' page has been updated to say 'The clinical risk assessment (CRA) for microbiological screening on admission or transfer in the NNUs is currently under review by the Neonatal Units Infection Reduction Steering Group. This will be available in late September 2018.' 4.2 Healthcare infections, incidents, outbreaks and data exceedance. The second bullet point has been changed from 'three or more cases of colonisation with same organisms' to 'two or more cases of colonisation with the same organism.'

March 2019	**3.14**	• Introduction New bullet: Improve the application of knowledge and skills in infection prevention and control • Section 1.2 – Hand Hygiene Updates to **'**Before performing Hand Hygiene' 'bare below the elbows' added to first bullet point Inclusion of note in second bullet point *For health and safety reasons, Scottish Ambulance Service Special Operations Response Teams (SORT) in high risk situations require to wear a wristwatch.

Date	Version	Changes
		Inclusion of new paragraph ‘Where there is no running water available or hand hygiene facilities are lacking, staff may use hand wipes followed by ABHR and should wash their hands at the first available opportunity.’ Removal of paragraph ‘Hand wipes should not be used by staff in the hospital/care setting for hand hygiene unless there is no running water available. In this circumstance staff may use hand wipes followed by ABHR and should wash their hands at the first available opportunity.’ Update to Skin care New bullet • Staff with skin problems should seek advice from Occupational Health or their GP. Update to Surgical hand antisepsis Inclusion of ‘Single use’ before nail brushes in bullet 2 • Section 1.4 – PPE New bullet added to ‘All PPE should be:’ • changed immediately after each patient and/or following completion of a procedure or task; and Removal of 4th bullet for ‘Gloves should be’

		to avoid excessive sweating and interference with dexterity.’ New bullet added to ‘Full body gowns/fluid repellent coveralls ‘ • Worn when a disposable apron provides inadequate cover for the procedure/task being performed.

Date	Version	Changes
		New bullet added to 'Eye/face protection' • 'Not be touched when worn.' Update to 3rd bullet in Footwear. Inclusion of text 'in these areas have a decontamination schedule with responsibility assigned.' New bullet in 'Headwear' • removed before leaving the theatre/clean room • Appendix 12 – Application of infection control precautions in the deceased Updated to reflect the new HSE Guidance Managing infection risks when handling the deceased: Guidance for the mortuary, post-mortem room and funeral premises, and during exhumation. • Appendix 14 – HIIAT HIIAT. Part 2: Communication. Amber Addition of the word **twice** to the paragraph 'Review and report HIIAT at least twice weekly or as agreed between IMT and HPS'. • Appendix 15 – HIIORT **Page 1.**

		Box at top – Inclusion of **initial assessment** Section 2 – Taken out total number of beds and total number of beds occupied. Section 3 – Inclusion of **further information in the case definition box**

Date	Version	Changes
		Addition of 2 new boxes – **implementation of the NIPCM** and **providing information to patients/relatives** Section 5 – Updates to **Press statement** box **Page 2** Box at top – Updated information on **completion of section** • Appendix 16 – New appendix: 'Best Practice - Aide Memoire for levels of PPE for healthcare workers when providing patient care'
23 August 2019		• Addition of Aide-memoire - Prevention and management of healthcare water-associated infection incidents/outbreaks as an interim measure until delivery of comprehensive evidence-based guidance which will form Chapter 4 of the National Infection Prevention and Control Manual (NIPCM) on the built environment and decontamination. • Publication of Clinical Risk Assessment for use in neonatal units after being piloted by NHS boards.
31 August 2019		• Addition of Aide-memoire: Prevention and management of healthcare ventilation system-associated infection incidents/outbreaks as an interim measure until delivery of comprehensive evidence-based guidance which will form Chapter 4 of the National Infection Prevention and Control Manual (NIPCM) on the built

		environment and decontamination.
8 November 2019		• Development process/methodology The methodology has been updated to include: • two-person systematic methodology

Date	Version	Changes
		• grading of recommendations updated to include new system based on HICPAC grading • new search strategies including this for CINHAL included for select literature reviews - more to be included as work progresses
8 Nov 2019		• Aerosol Generating Procedures (AGPs) Literature review A review of the extant scientific literature regarding aerosol generating procedures (AGPs) in the healthcare environment has been undertaken to form evidence-based recommendations for practice. The specific objectives of the review are to determine: • What is an aerosol generating procedure (AGP)? • Which procedures are considered to be aerosol generating?
29 Nov 2019		• Appendix 13 - Mandatory Alert Organism/Condition list Following consultation Appendix 13 has been updated with the following changes: Inclusion of new sentence in Paragraph 2. 'Further information on optimal patient placement and use of respiratory protective equipment is available in Appendix 11 of the NIPCM. Pathogen specific information and links to available guidance can be found in the NIPCM A-Z of pathogens. Table 1 • 'Clostridum' changed to 'Clostridiodes'.

		• Staphylococcus aureus locations changed from 'All care settings' to 'High risk units e.g ICU/PICU.

Date	Version	Changes
		• ESBL producers locations changed from 'All clinical/care settings' to 'High risk units e.g ICU/PICU/NICU, oncology/haemotology'. • New bacteria included 'Meticillin-resistant Staphylococcus aureus (MRSA) and borderline oxacillin-resistant S. aureus (BORSA)'. • Carbapenem-resistant Enterobacteriaceae (CRE) changed to 'Carbapenem-resistant organisms (CRO). Table 6 Major changes made to text and table
2 December 2019		• Appendix 11 - Best Practice - Aide Memoire for Optimal Patient Placement and Respiratory Protective Equipment (RPE) for Infectious agents whilst a patient is in hospital Inclusion of bacteria with exceptional resistance directing to Appendix 13. Inclusion of High Consequence Infectious disease (HCID) directing to PHE List of HICD. Updates to VRE and VHF. Updates to footnote 3, 5 and 7

30 January 2019		• Section 2.3 - Management of the care environment - decontamination of vacated rooms following an AGP. The advice has been updated with regard to number of air changes per hour. It now reads: 'Vacated rooms should also be decontaminated following an AGP. Clearance of infectious particles after an AGP is dependent on the ventilation and air change within

Date	Version	Changes
		the room. In an isolation room with 10-12 air changes per hour (ACH) a minimum of 20 minutes is considered pragmatic; in a side room with 6 ACH this would be approximately one hour. Advice should be sought from IPCT.'
24 Feb 2020		• Literature reviews – eye/face protection and surgical face masks The PPE literature reviews for eye/face protection and surgical face masks have been updated to include 'a full face shield can be used in place of goggles/visor and a fluid-resistant surgical mask for protection against droplet splash and spray'.
11 Mar 2020		• Updated AGP added to Appendix 11 and AGP literature review An update has been made and High flow nasal oxygen (HFNO) has been added to Appendix 11 and the AGP literature review as an aerosol generating procedure. • Section 1.4 – PPE Video for donning and doffing of PPE for healthcare workers in primary care settings is added.

12 Mar 2020		Update to requirements for using a full face visor as PPE/RPE • Section 1.4 – PPE Fluid Resistant Type IIR surgical face masks must be: • worn if splashing or spraying of blood, body fluids, secretions or excretions onto the respiratory mucosa (nose and mouth) is anticipated/likely; • a full face visor may be used as an alternative to fluid resistant Type IIR surgical face masks to protect against splash or spray. However, a full face visor alone is not sufficient when droplet precautions are being employed and

Date	Version	Changes
		a fluid resistant Type IIR surgical face mask and eye/face protection must be worn as outlined in Appendix 16. • Section 2.4 All tight fitting RPE i.e FFP3 respirators must be: • Compatible with other facial protection used i.e. protective eyewear so that this does not interfere with the seal of the respiratory protection. Regular corrective spectacles are not considered adequate eye protection. If wearing a valved, non-shrouded FFP3 respirator a full face shield/visor must be worn. Poster below gives further information on compatibility of facial hair and FFP3 respirators and can be used when fit testing and fit checking.
30 Mar 2020		• Appendix 11 Update to AGPs list in Appendix 11, footnote 3 The UK COVID-19 guidance updated following NERVTAG advice and the following AGPs have been added: Bronchoscopy and upper ENT airway procedures that involve suctioning. Upper Gastro-intestinal Endoscopy where there is open suctioning of the upper respiratory tract

13 May 2020		• Addition of SBAR assessing the evidence base for medical procedures which create higher risk of respiratory infection transmission from patient to healthcare worker.

Date	Version	Changes
		The SBAR and supplementary information reviews the current evidence base on medical procedures that create a higher risk of respiratory infection transmission from patient to healthcare worker. The recommendations in Table 1 of the SBAR are used as the AGP list for footnote 4 of Appendix 11 of the NIPCM. • Appendix 11 - Best Practice Aide Memoire for patient placement and RPE for infectious agents while a patient is in hospital The list of AGPs in footnote 4 of Appendix 11 has been updated after review of the current scientific literature and was agreed in collaboration with experts from New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) and Public Health England (PHE).
13 Jul 2020		• Updated Hand Hygiene Literature reviews - Products, Skin Care, Surgical Hand Antisepsis in the clinical area These 3 literature reviews have been reviewed and updated as part of the planned review process. Lists of all updates made can be viewed in the Version history section.
13 Jul 2020		• Appendix 11 - Best Practice Aide Memoire for patient placement and RPE for infectious agents while a patient is in hospital Footnote 3 of Appendix 11 now has the updated list of procedures classed as AGPs based on rapid review and SBAR in consultation with NERVTAG.

23 Jul 2020		• New literature review Hand Hygiene: Hand washing, hand rubbing and indications for hand hygiene

Date	Version	Changes
		Three reviews (Hand washing V2.0 2016, Indications for Hand Hygiene V2.0 2016, and Use of Alcohol Based Hand Rub V2.0 2016) were amalgamated into one review using the two-person NIPCM methodology. New recommendations were added in for: When should hand hygiene be performed? How should hands be dried after hand washing? What is the evidence regarding the wearing of jewellery in relation to hand hygiene, including Jewellery worn for religious reasons? What are the requirements for sink design, provision and types of tap for clinical hand wash? Is the use of alcohol based hand rubs suitable for individuals who abstain from alcohol for religious reasons?
4 Aug 2020		• Updated literature review: Blood and body fluid spillages This literature review has been reviewed and updated as part of the planned review process. Lists of all updates made can be viewed in the Version history section.
6 Aug 2020		• Updated literature review: Safe disposal of waste This literature review has been reviewed and updated as part of the planned review process. Lists of all updates made can be viewed in the Version history section.

Date	Version	Changes
17 Aug 2020		• Updated RPE literature review The RPE literature review has been reviewed using the two-person systematic review methodology. New questions added regarding fit testing, valved respirators, respirator standards, powered respirators and respirator storage.
3 Sep 2020		• Appendix 11 - Best Practice Aide Memoire for patient placement and RPE for infectious agents while a patient is in hospital The SARSCoV-2/COVID-19 entry for optimal patient placement and RPE has been updated and now reads. • Optimal placement whilst patient is considered infectious and until resolution of symptoms: High Risk (Red) Pathway & ideally single en-suite room or confirmed COVID19 cohort. • Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious: Fluid Resistant surgical facemask (FRSM) for routine care and FFP3 or hood for AGPs

4 Sep 2020		• Section 2.4 PPE and RPE Section 2.4 has been updated after review of the RPE literature review Some sections been moved around to improve readability. Updates made: All tight fitting RPE i.e FFP3 respirators must be:

Date	Version	Changes
		• Single use (disposable) and fluid-resistant. NB Valved respirators maybe shrouded or unshrouded. Respirators with unshrouded valves are not considered to be fluid-resistant and therefore should be worn with a full face shield if blood or body fluid splashing is anticipated. Fit tested (by a competent fit test operator) on all healthcare staff who may be required to wear a respirator to ensure an adequate seal/fit according to the manufacturers' guidance. • Glossary The definition for airborne particles (aerosols) has changed to: 'Very small particles that may contain infectious agents. They can remain in the air for long periods of time and can be carried over long distances by air currents. Aerosols can be released during aerosol generating procedures (AGPs).'

4 Sep 2020		• Section 1.2 Hand Hygiene The following changes have been made to section 1.2 to reflect changes in the hand hygiene literature reviews Before performing hand hygiene: • 'bracelets or bangles such as the Kara which are worn for religious reasons should be able to be pushed higher up the arm and secured in place); Skin care: 'Warm/tepid water should be used to reduce the risk of dermatitis; hot water should be avoided. Pat hands dry thoroughly after hand washing using disposable paper towels; avoid rubbing which may lead to skin irritation/damage. Do not use refillable dispensers or provide communal tubs of hand cream in the care setting.

Date	Version	Changes
		Surgical hand antisepsis: Nail brushes should not be used for surgical hand antisepsis. Nail picks (single-use) can be used if nails are visibly dirty. Soft, non-abrasive, sterile (single-use) sponges may be used to apply antimicrobial liquid soap to the skin if licensed for this purpose. ABHR can be used between surgical procedures if licensed for this use or between glove changes if hands are not visibly soiled.
9 Oct 2020		• Literature reviews for Transmission Based Precautions Definitions and Safe Management of Linen These literature reviews have been reviewed and updated as part of the programmed review schedule.
19 Oct 2020		• SBAR: Assessing the evidence base for medical procedures which create a higher risk of respiratory transmission from patient to healthcare worker. This SBAR has been updated to include the footnote for Respiratory Tract Suctioning. 'The available evidence relating to Respiratory Tract Suctioning is associated with ventilation. In line with a precautionary approach open suctioning of the respiratory tract regardless of association with ventilation has been incorporated into the current (COVID-19) AGP list. It is the consensus view of the UK IPC cell that only open suctioning beyond the oro-pharynx is currently considered an AGP i.e. oral/pharyngeal suctioning is not an AGP. The evidence on respiratory tract suctioning is currently being

		reviewed by the AGP Panel.'
3 Nov 2020		• Scottish COVID-19 Infection Prevention and Control Addendum for Acute Settings now available

Date	Version	Changes
		The purpose of this addendum is to provide COVID-19 specific IPC guidance for NHSScotland on a single platform.
9 Nov 2020		• Appendix 5 - Glove selection chart This chart has been updated and is now presented in a more accessible format to enable use in other non-hospital care settings for example care homes.
11 Nov 2020		• Literature reviews on surgical face mask and eye/face protection for SICPs and TBPs The SICPs literature reviews have been updated including new questions on TBPs and have been issued as new versions. Updates have been made within the PPE section of the manual further to the recommendations in the literature reviews.
10 Dec 2020		• COVID-19 updates to Chapter 3 and Acute Addendum Updates have been made to Chapter 3 and it now includes sections on COVID-19. The COVID-19 acute addendum has been updated and now includes a section on PPE requirements for delivery of COVID-19 vaccinations and section on outbreaks.
23 Dec 2020		• Scottish COVID-19 care home infection prevention and control addendum added to NIPCM providing COVID-19 specific infection and prevention control (IPC) guidance for care home staff and providers on a single platform to improve

		accessibility.

Date	Version	Changes
11 Jan 2021		• Scottish COVID-19 Community Health and Care Settings Infection Prevention and Control Addendum added to NIPCM providing specific IPC guidance for community health and care settings on a single platform improving accessibility for users. The guidance within this addendum is in line with the UK IPC remobilisation guidance however some deviations for NHSScotland exist.

24 Feb 2021		• Appendix 13 Mandatory Alert organisms/conditions Table 1 has been updated for Staphylococcus aureus. It now says: 'Boards should implement local surveillance to allow appropriate intervention where a data exceedance is recognised for common circulating strains and where 2 or more cases with the same resistant strain are identified. This might include contact with the ward or development of SPC charts to ensure clusters would be detected and investigated appropriately. NB: S.aureus bacteramia must be investigated in all wards/departments as per National surveillance protocol.' • New management of care equipment literature review for SICPs and TBPs A new literature review has been produced that covers SICPs and TBPs and replaces the separate literature reviews. • New Aprons and Gowns literature review for SICPs and TBPs A new aprons and gowns literature review covering SICPs and TBPs has been produced. This replaces the separate SICPs and TBPs literature reviews. The PPE sections of the manual for SICPs and TBPs have been updated to reflect the literature review recommendations.

Date	Version	Changes
24 May 2021		• Infection Prevention and Control Manual for older people and adult care homes (Care Home IPCM) In order to support care homes successfully adopt and implement the NIPCM, this context specific Care Home Infection Prevention and Control Manual (CH IPCM) has been co-produced with national and local stakeholders. The content of the CH IPCM is completely aligned to the evidence based NIPCM and is intended to be used by all those involved in residential care provision. The CH IPCM contains chapters on Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs).
9 Aug 2021		• Updated literature review development process and footwear literature reviews The literature review development process search strategies have been updated. The Footwear literature review has been updated using the 2 person methodology. 5 additional questions have been included and 2 existing questions have been modified.
18 Aug 2021		• PPE - Headwear literature review and recommendations The headwear literature review has been updated and includes new questions and recommendations. These include a new bullet: Headwear must be: • worn as PPE for procedures where splashing/spraying of body fluids is anticipated, and as source control when performing clean/aseptic

		procedures where risk of infection is deemed to be high.

Date	Version	Changes
16 Sept 2021		• Updated Literature Review - Cough etiquette/respiratory hygiene This literature review has been reviewed and updated with the following changes made: The inclusion of 'In the absence of disposable tissues and hand hygiene facilities, individuals should cough or sneeze into their elbow/sleeve' Addition of 'Avoid touching face (nose, mouth and eyes)' New question added 'What support is required for patients with restricted mobility or additional needs in understanding cough etiquette principles?
20 Oct 2021		• Updated patient placement literature review and change to chapter text The standard infection and transmission based precautions patient placement, isolation and cohorting literature review has been updated and the following changes made to the NIPCM. Chapter 1 Inclusion of new paragraph: 'Patients who may present a particular cross-infection risk should be isolated on arrival and appropriate clinical samples and screening undertaken as per national protocols to

		establish the causative pathogen. This includes but is not limited to patients:' Inclusion of new bullet points:

Date	Version	Changes
		Who have been a close contact of a person who has been colonised or infected with CPE in the last 12 months. Who have been in contact with a confirmed COVID-19 individual and are still within the 14-day self-isolation period. Updated bullet points: With symptoms such as loose stools or diarrhoea, vomiting, fever or respiratory symptoms. Who have been hospitalised outside Scotland in the last 12 months (including those who received dialysis). Chapter 2 New and updated bullets as per Chapter 1. New paragraph 'When single-bed rooms are limited, patients who have conditions that facilitate the transmission of infection to other patients (e.g., draining wounds, stool incontinence, uncontained secretions) and those who are at increased risk of acquisition and adverse outcomes resulting from HAI (e.g., immunosuppression, open wounds, invasive devices, anticipated prolonged length of stay, total dependence on HCWs for activities of daily living) should be prioritised for placement in a single-bed room. Single-bed room prioritisation should be reviewed daily and...' Hospital settings:

		Updated bullet point ‘Isolation of infectious patients can be in specialised isolation facilities, single room isolation, cohorting of infectious patients where appropriate, ensuring that they are separated by at least 2 metres with the door closed.’

Date	Version	Changes
		Cohorting in hospital New paragraph in discontinuing isolation. 'Clinical and molecular tests to show the absence of microorganisms may be considered in the decision to discontinue isolation and can reduce isolation times. The clinical judgement and expertise of the staff involved in a patient's management and the Infection Prevention and Control Team (IPCT) or Health Protection Team (HPT) should be sought on decisions regarding isolation discontinuation.' Primary care/outpatient settings Updated bullet point 'Patients attending these settings with suspected/known infection/colonisation should be prioritised for assessment/treatment e.g. scheduled appointments at the start or end of the clinic session. Infectious patients should be separated from other patients whilst awaiting assessment and during care management by at least 2 metres.'

29 Nov 2021		• Winter (2021/22) Respiratory Infections in Health and Care Settings Infection Prevention and Control Addendum This guidance has been developed during the ongoing COVID-19 pandemic recognising the likelihood of a surge in other respiratory viruses in addition to COVID-19 over the winter season of 2021/22 and supersedes the 3 COVID-19 addenda (Acute, Care home and Community health and care settings) first published in October 2020. Key changes as we move from the COVID-19 addenda to Winter (21/22), Respiratory Infections in Health and Care Settings Infection Prevention and Control (IPC) Addendum are:

Date	Version	Changes
		Removal of the 3 distinct COVID-19 care pathways (high/red, medium/amber and low/green) to respiratory and non-respiratory pathways. A return to Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs) as per National Infection Prevention and Control Manual (NIPCM) and the Care Home Infection Prevention and Control Manual (CHIPCM). An algorithm to support placement of service users within health and care settings. Respiratory screening questions to include COVID-19 AND other respiratory pathogens. Ongoing Rapid testing for COVID-19 AND to now include other respiratory pathogens in some settings
1 Dec 2021		• 3 new appendices added to NIPCM The NIPCM now includes Appendix 17 - Aerosol Generating Procedures (AGPs) and Post AGP Fallow Time (PAGPFT) Appendix 18 - Physical Distancing in health and care settings: A pandemic measure deployed in 2020 during the COVID-19 Pandemic Appendix 19 - Elective Surgery IPC Principles

2 Dec 2021		• Section 1.4 PPE The NIPCM has been updated and states 'Transparent face masks may be used to aide communication with patients in some settings'. Further guidance including mask specifications is available.

Date	Version	Changes
15 Dec 2021		• COVID-19 literature reviews and SBARs moved from PHS site to the NIPCM. The literature reviews and SBARs produced by ARHAI as part of the COVID-19 pandemic response have been moved from the PHS website to the NIPCM and can be accessed at the link below. Pandemic response literature reviews.
13 Jan 2022		• Update of surgical face masks literature review The surgical face masks literature review has been updated to include reference to transparent face masks. Transparent face masks guidance is now provided in the manual. • Updated literature review: PPE Aprons and Gowns The aprons and gowns literature review has been updated based on expert opinion. The recommendation 'How should aprons/gowns be donned?' has been updated to say: ‘When worn as part of contact precautions, an apron (or gown if excessive splash or spray is anticipated) should be donned for direct care delivery and contact with the patient’s care environment.’

17 Jan 2022		• Updated TBP door posters and aide memoire The posters for airborne, contact and droplet precautions and aide memoire have been updated to take account changes made to the aprons and gowns literature review.

Date	Version	Changes
24 Jan 2022		• Update to Appendix 14 - HIIAT The HIIAT form has been updated to include reference to the ORT system rather than the previous reporting mechanism.
4 Mar 2022		• Updated SICPs Occupational Exposure Literature review The occupational exposure literature review has been reviewed and includes 1 new objective and 2 new recommendations. New objective - What is the definition of an “occupational exposure”? This objective was split from the definition of a “significant occupational exposure” to allow clarity between the two definitions. New recommendations What occupational health screening and protection should be offered to healthcare workers? ‘Risk assessment of job roles should be undertaken to identify areas where occupational exposure may occur. There should also be policies and procedures in place to update these risk assessments when necessary. Employers are required to eliminate or reduce workplace risks where it is reasonably practicable.’ What is the risk to healthcare workers of blood borne virus (BBV) transmission following

		occupational exposure? ‘There have been a total of 23 HCV seroconversions in HCWs reported in the UK, with the most recent reported in 2015. All of these seroconversions were the result of percutaneous exposures from hollowbore needles. [redacted]

Date	Version	Changes
		[redacted], again from percutaneous exposure from a hollowbore needle. There have been no reported seroconversions of HBV in HCWs in the UK.'
14 Mar 2022		• Section 1.10 Occupational Exposure The occupational exposure chapter has been updated to include definitions for Occupational Exposure and Exposure Prone Procedures (EPPs).
31 Mar 2022		• Appendix 13 - NHSScotland Alert organism/Condition list Table 6- Resistant organisms (exceptional phenotypes) of Appendix 13 has had minor amendments made for: Pseudomonas aeruginosa Staphylococcus aureus Coagulase-negative staphylococci Corynebacteriumspp All enterococci • New chapter now available - Chapter 4 - Infection Control in the Built Environment and Decontamination Chapter 4 is in its early stages of development and currently is a document repository for evidence reviews and tools related to IPC in the built environment and decontamination.

		It does not currently fall into mandatory requirements for the NIPCM.

Date	Version	Changes
		Content going forward will be developed via the ARHAI Scotland Infection Control in the Built Environment and Decontamination (ICBED) programme informed by stakeholder engagement and requirements, learning from NHS Assurance programme and outbreaks and incidents.
8 Apr 2022		• Appendix 3 - Surgical scrubbing Appendix 3 has been updated and includes an additional step (step 11). This step adds in an additional scrub to the mid forearms before the rinse stage (step 12).
10 Jun 2022		• Updated HAI incidents and outbreaks literature review and practice recommendations The HAI incidents and outbreaks literature review has been updated with reworded and new recommendations made. Chapter 3.1 - new definitions added and rewording of some existing definitions. Chapter 3.2 - inclusion of paragraphs on surveillance systems Chapter 3.2.1 - addition of new second bullet and bullet about monitoring. Chapter 3.2.2 - inclusion of bullet and sub bullets on infection incident investigation, control measures, significant adverse events. Inclusion of section on communication • Updated gloves literature review and practice recommendations The gloves literature review has been reviewed and a number of amendments made to

		recommendations. The SBARs for use of gloves for environmental cleaning and administration of vaccinations have now been removed and the contents have been incorporated into this literature review.

Date	Version	Changes
		• Appendix 5 - glove selection flowchart has been updated for clarity of wording. • Section 1.4 PPE The bullet points in section 1.4 of the NIPCM for gloves have been reworded with the addition of 2 new bullets: Gloves are a single-use item and should be changed immediately after each use or upon completion of a task, not be worn as a substitute to hand hygiene.
13 Jun 2022		• Updated Neonatal HAI incidents and outbreaks literature review This literature review has been updated and the following changes made: The research question, 'How should potential healthcare infection incidents be assessed?' has been reworded to say; 'How should suspected healthcare infection incidents be assessed? New research question added; How should a healthcare infection incident be 'closed', with lessons learned, recorded and disseminated nationally? Anumber of recommendations have been rephrased and new recommendations have been added. The grading of existing recommendations has also been changed to reflect the quality of the evidence-base used to inform them. The Neonatal addendum has been updated to include these changes.

15 Jun 2022		• Appendix 13 - Alert organism/condition list Table 6: Resistant organisms (unusual phenotypes) - (amended version based on 'EUCAST Expert rules and intrinsic resistance, 2021', taking into account the epidemiology of Scottish isolates) has been updated and new paragraphs added after the table

Date	Version	Changes
29 Jun 2022		• New Appendix 22 - Community IPC COVID-19 pandemic Appendix 22 forms part of the transition from the Winter Respiratory addendum to using SICPs and TBPs in the NIPCM. It should be used by health and care settings to manage the current COVID-19 pandemic measures still in place.
11 July		• NIPCM Relaunch 11 July 2022 • Removal of COVID-19 Respiratory Addendum • New Appendix 21 and 22 Appendix 21 - COVID-19 Pandemic Controls for Acute NHS settings including Scottish Ambulance Service (SAS) Appendix 22 - COVID-19 Community IPC The NIPCM should now be used along with Appendix 21 and 22 which summarise the remaining pandemic measures which exist in addition to the NIPCM and provide links to helpful resources, guidance and policy documents.

5 Aug 2022		• Appendix 13 - Mandatory Alert organism/condition list The second column of Tables 1 - 5 have been updated to outline both the locations and patient cohorts relevant to each pathogen or condition. The following have been added: Burkholderia spp. Staphylococcus capitis SARS-CoV-2 Cryptococcus spp. scalded skin syndrome

Date	Version	Changes
		adenoviral conjunctivitis Table 6 has been updated in-line with EUCAST expert rules and expected phenotypes. The footnotes for this table have also been amended.
22 Aug 2022		• Section 3.7.5 and 3.9.2 COVID-19 testing during an outbreak and Replacing Transmission based precautions with daily testing, have been updated as per DL (2022)29.
22 Aug 2022		• Appendix 21 - COVID-19 - Pandemic Controls for Acute NHS settings including Scottish Ambulance Service (SAS), Dental Services Updated to include changes made to COVID-19 testing requirements in line with DL 2022(29) issued on 22nd August 2022.
1 Sep 2022		• Appendix 16 - Selection of Personal Protective Equipment (PPE) by Healthcare Workers (HCWs) during the provision of patient care Reviewed and general rewording of sections taken place. Changes have been made to the following sections: Aprons/gowns Inclusion of detail on when a gown should be worn. Additional information on wearing for indirect/direct patient care and immediate environment. Doffing information updated Eye/face protection Addition of wearing when dealing with a high consequence infectious disease

		Fluid resistant surgical masks (FRSM)

Date	Version	Changes
		Addition of wearing for AGPs Respiratory Protective Equipment (RPE) Addition of reference to a fit-tested FFP3 respirator or powered respirator hood
30 Sep 2022		• Appendix 11 - Best Practice - Aide Memoire for Optimal Patient Placement and Respiratory Protective Equipment (RPE) for Infectious agents whilst a patient is in hospital Following review, several changes to Appendix 11 have been made. General rewording of sections has taken place and pathogens have been added. The 'Modes of transmission' column and reference to pathogen colonisation under the 'Disease' column have been removed.
12 Oct 2022		• New SBAR 'Aerosol-generating procedures: current situation for Scotland' A new SBAR 'Aerosol-generating procedures: current situation for Scotland' has been published, with recommendations for next steps for Scotland.

27 Oct 2022		• New PVC maintenance and insertion quality improvement literature review and bundle A new PVC maintenance and insertion literature review has been produced. This replaces the Insertion and Maintenance of Peripheral Venous Catheters (PVC) literature reviews for Adults (V2.0 Sep 2014) and Neonates (V1.0 May 2018) which were amalgamated and updated using a two-person methodology to produce this new literature review. The PVC maintenance and insertion bundle has also been updated.

Date	Version	Changes
		• A-Z The entry for Coronavirus disease 2019 (COVID-19) (SARS CoV-2) has been updated. This now includes incubation period, period of infectivity and exclusion period. The updated entry is in the A-Z as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2).
17 Nov 2022		• Update to NIPCM methodology The NIPCM 'Methodology' document has been updated to reflect the revised ARHAI Scotland governance structure and NIPCM Working Groups, and the updated literature review search strategies. Further changes to the NIPCM methodology are currently being piloted and will be updated in due course.
18 Nov 2022		• Updates to NIPCM – DL(2022)10 The NIPCM (Chapter 2), Care Home IPCM (TBPs) and associated Appendices (16, 21 and 22) have been updated to reflect that the advice contained within the Scottish Government's DL(2022)10 remains extant.
23 Nov 2022		• New poster - PVC maintenance and insertion quality improvement tool A new poster for the insertion and maintenance of peripheral venous catheters (PVCs) has been produced following the recent update of the PVC maintenance and insertion literature review. This replaces the previous recommendations poster and should be used alongside the

		bundle as a quality improvement tool.

Date	Version	Changes
28 Nov 2022		• Archiving of Cystic Fibrosis literature review Following stakeholder feedback the Cystic Fibrosis literature review has now been archived.
1 Dec 2022		• Updated Decontamination technologies literature review: Ultraviolet Light This literature review examines the available professional literature on the use of ultraviolet light for environmental decontamination in health and care settings. It has been updated using the two-person methodology as described in the NIPCM Development Process and includes new objectives and recommendations.
5 Dec 2022		• Appendix 20 - Hierarchy of Controls Appendix 20 has been updated to reflect each principle of the Hierarchy of Controls, for health and care settings.
29 Dec 2022		• Updated decontamination technologies literature review: wipes New and rephrased objectives were included in the review and new recommendations have been added.
30 Dec 2022		• New Quality Improvement Tool (QIT) literature review - Insertion and Maintenance of Central Venous Catheters (CVC) Content This literature review examines the extant scientific literature on the insertion and maintenance of central venous catheters (CVCs) in the health and care setting. It replaces the Insertion and Maintenance of Central Venous Catheters (CVCs)

		literature reviews for Adults (V3.0 Sep 2014) and Neonates (V1.0 Sep 2017) which were

Date	Version	Changes
		amalgamated and updated using a two-person methodology. Objectives have been added to address evidence on both insertion and maintenance of CVCs.
18 Jan 2023		• Updated literature review and NIPCM/CH IPCM text - Infection Prevention and Control for Care of the deceased It has been updated using the two-person methodology as described in the NIPCM Development Process and includes one new objective along with recommendations. These updates cover: • Infection status and risk assessment. • Viewing, washing and dressing of bodies where a specific disease is confirmed or suspected. • Post-mortem of those suspected or confirmed with having a TSE.
26 Jan 2023		• Update to literature review and NIPCM content: Indications and techniques for hand hygiene It has been updated using the two-person methodology as described in the NIPCM Development Process and includes updated objectives and recommendations. The NIPCM has been updated to reflect these changes.

6 March 2023		• New bundles and posters for CVC insertion and maintenance - Neonatal, Paediatrics and Adults New bundles and posters for CVC insertion and maintenance replace the CVC and neonatal CVC bundle, recommendations and other supporting tools.

Date	Version	Changes
15 Mar 2023		• Update to mpox guidance Version 1.4. This document has been updated to reflect key changes which include: • Change to terminology, where Monkeypox will now be referred to as ‘mpox’ and the virus will be referred to as ‘MPXV’. • As per Mpox Principles for control of non-HCID mpox in the UK: 4 nations consensus statement the Advisory Committee on Dangerous Pathogens (ACDP) have advised that the whole of Clade II MPXV should now no longer be classified as a high consequence infectious disease (HCID).
20 Mar 2023		• New Appendix 21 - COVID-19 Pandemic IPC controls for health and social care settings This new Appendix 21 combines content from COVID-19 Appendix 21 for acute settings and Appendix 22 for community settings into a single pandemic appendix for health and social care settings.
24 Apr 2023		• Update to literature review: Infection Prevention and Control During the Care of the Deceased This literature review has updated wording within the discussion section and recommendations to provide additional clarity. Please see the version history table in the literature review for all updates.

15 May 2023		• Update to NIPCM and CH IPCM to reflect Scottish Government DL (2023)11 The National Infection Prevention and Control Manual (NIPCM) and the Care Home Infection Prevention and Control Manual (CH IPCM) have been updated to reflect the Scottish Government DL (2023) 11. This DL outlines that the Scottish Government's 'Coronavirus (COVID-19): use of face coverings in social care settings including adult care homes' guidance and the

Date	Version	Changes
		‘Coronavirus (COVID-19): extended use of face masks and face coverings in hospitals, primary care and community healthcare settings’ guidance has now been withdrawn. Health and care staff should follow the guidance contained in both the NIPCM and CH IPCM. This reflects a return to pre-pandemic IPC practices. Reference to extended use of fluid-resistant surgical face masks and sessional face mask use has been removed from the NIPCM and CH IPCM. Please note that the decision to undertake a personal PPE risk assessment for Respiratory Protective Equipment (RPE) remains within the NIPCM and CH IPCM. The following sections within the NIPCM and CH IPCM have been updated to reflect the above changes: • Chapter and Sections: 1.4, 2.4 and 3.7 (NIPCM) • Chapter 1, Section 4 (CH IPCM) • Appendix 16 • Appendix 21 Reference to ‘extended use’ in the context of length of wear-time, has been changed to ‘prolonged’ use, to avoid any confusion with existing terminologies.

24 May 2023		• Revision and update of Care Home IPC Manual The updated Care Home IPC Manual reflects on pandemic learning, emphasising the ongoing importance of Infection Prevention and Control (IPC) guidance for all those working in all care home settings. Appendix 19 provides details of the remaining IPC measures advised for COVID-19 that should continue to be applied alongside the manual.

Date	Version	Changes
2 Jun 2023		• Renumbering of Appendices The Appendices within the NIPCM have been renumbered to reflect the archiving of now outdated COVID-19 materials.
26 Jun 2023		• Update to Appendix 16 - Selection of Personal Protective Equipment (PPE) by health and care workers (HCWs) during the provision of care Appendix 16 has been updated to reflect changes within the NIPCM and CH IPCM. The changes made are: • updates related to DL (2023) 11 – step-down of Scottish Government's extended use of face mask guidance • removal of where to don and doff PPE column • footnotes included for additional clarity. Please note this is an interim update pending the completion of the TBPs literature review later in the year.
29 Jun 2023		• Update to Mpox guidance The following revisions have been made to the mpox guidance. Minor revisions to the extant guidance following an update to the UKHSA guidance. No changes to content, general information section has been condensed and updated electronic links to latest UKHSA guidance as appropriate. Inclusion of link to Advisory Committee on Dangerous Pathogens (ACDP) Guidance.

7 July 2023		• Updated Hand Hygiene: Surgical Hand Antisepsis in the Clinical Setting literature review Key changes include:

Date	Version	Changes
		• the addition of sections outlining legislative requirements relating to surgical hand antisepsis products, • an updated definition of surgical hand antisepsis • an updated recommendation, advising to wash hands with an antibacterial hand wash product prior to the first operation of the day
21 July 2023		• Update to Surgical Hand Antisepsis Literature Review and related NIPCM content Following stakeholder feedback the Surgical Hand Antisepsis Literature Review has been revisited and updated. Amended recommendation: The following recommendation was clarified to align with the Association for Perioperative Practice (AfPP) and the National Institute for Health and Care Excellence (NICE) recommended practice. • Surgical scrubbing using an antimicrobial surgical scrub product should be used for the first surgical hand antisepsis of the day. Removed recommendation: A recommendation was removed from the section ‘What is the correct process and technique for surgical hand antisepsis?’ as it does not form part of the surgical rubbing

		process. • Hands should be washed with non-antimicrobial liquid soap and thoroughly dried after donning theatre clothing. Updates to NIPCM:

Date	Version	Changes
		Section 1.2 of the NIPCM has been amended to take consideration of these amendments. Appendix 3 - Surgical Scrubbing and Appendix 4 - Surgical Rubbing have been updated to reflect these changes.
30 Aug 2023		• Update to NIPCM and CH IPCM to reflect changes to Scottish Government COVID-19 Testing Guidance CMO Letter (SGHD/CMO(2023)12) Specific reference to asymptomatic COVID-19 testing has been removed from the NIPCM and CH IPCM. Please note that COVID-19 testing for discharge to care homes/hospices is the only routine testing that has been retained as part of Scottish Government Policy. Testing to support clinical diagnosis and for outbreak management should continue as per the NIPCM and CH IPCM and on advice from local IPCT and HPTs. Health and care staff should follow the guidance contained in both the NIPCM and CH IPCM. This reflects a return to pre-pandemic IPC practices. The following sections within the NIPCM and CH IPCM have been reviewed, updated or archived to reflect a pause in asymptomatic testing and removal of any reference specific to COVID-19: NIPCM • Chapter 1 Section 1.1

		• Chapter 2 Section 2.1 • Chapter 3 • Neonatal Addendum

Date	Version	Changes
		CH IPCM • Chapter 1 Section 1 • Link to Public Health Scotland COVID-19 guidance included Appendix 19 – COVID-19 Pandemic IPC Controls for Health and Social Care Settings – archived COVID-19 Hospital Testing Table - archived. Assessing Staff contacts of COVID-19 in NHS acute healthcare settings – archived. SARS-CoV-2 A-Z Entry – links updated. Transition document: Winter Respiratory Infection IPC addendum to NIPCM - archived.

26 Oct 2023		• Update to recommendation for surgical hand antisepsis Following publication of the Surgical Hand Antisepsis literature review version 6.1 in July 2023 we received stakeholder feedback relating to the recommendation. The literature review has been updated Amended recommendation: The following recommendation was amended following stakeholder feedback which highlighted that some settings have designed out scrub sinks to reduce the risk of water-associated infection, and consequently only use surgical hand rub products. Additionally, skin sensitivities and allergies may require avoidance of surgical hand scrub products. In these scenarios where surgical hand rubbing is the preferred option, it is expert opinion that hand hygiene using water and a non-antimicrobial liquid soap should be performed prior to entering the theatre or care area. The rationale for this is to remove physical contamination (which hand rub products are unable to do).

Date	Version	Changes
		• Surgical scrubbing using an antimicrobial surgical scrub product should be used for the first surgical hand antisepsis of the day. Additional wording added: Or perform hand hygiene using water and a non-antimicrobial liquid soap prior to the first surgical antisepsis of the day; this can be carried out in an adjacent clinical area. Section 1.2 of the NIPCM has been amended to take consideration of these amendments.
30 Nov 2023		• Care Home IPC resources for both Gastrointestinal and Respiratory Illness now available Two new Care Home IPC resources for Gastrointestinal Illness and Respiratory Illness have been published online today. These resources provide IPC advice in relation to respiratory and gastrointestinal illness and replace the previous Care Home Norovirus and Influenza guidance documents.
15 Dec 2023		• Update to Hand Hygiene: Skin care literature review and recommendations This contains an update to Section 1.2 of the NIPCM and Section 2 of the Care Home Infection Prevention and Control Manual advising that barrier creams should not be used in the workplace.

21 Dec 2023		• Update to Personal Protective Equipment: Gloves literature review The Personal Protective Equipment: Gloves literature review has been updated to reflect updates to the literature reviews on inserting and maintaining central vascular catheters and peripheral vascular catheters. One correction to a citation has also been made. Details on these changes can be found in the version history.

Date	Version	Changes
		The content of the literature review and associated recommendations remain unchanged.
28 Dec 2023		• Update to wording in Standard Infection Control Precautions Literature Review: Occupational Exposure. Management of Occupational Exposure to Blood Borne Viruses • The SICPs literature review 'Management of occupational exposure to blood borne viruses' has been updated. • Under objective ‘What is the recommended procedure for managing significant exposure incidents?’ wording has been changed to reflect the evidence recommending against the use of antiseptics and skin washes.
11 Jan 2024		• Update to hand hygiene products literature review and references to hand rub An update has been made to Section 1.2 of the NIPCM, Section 2 of the Care Home Infection Prevention and Control Manual and other relevant resources, advising that hand rub (alcohol and non-alcohol based) can be used in health and care settings if they meet the specified requirements.

18 Jan 2024		• Development of new respiratory short form and accompanying outbreak checklist ARHAI Scotland have developed a respiratory short form for reporting of any incident/outbreak from key respiratory viruses (COVID-19, influenza and respiratory syncytial virus (RSV) only), where IPC measures align with the newly developed outbreak checklist/NIPCM and where ARHAI support is not requested. Reporting via the respiratory short form uses a minimum dataset which aimsto reduce reporting burden for NHS boards whilst maintaining national surveillance of incidents

Date	Version	Changes
		and outbreaks across Scotland. The respiratory short form has now been successfully rolled out to all NHS boards and more information can be found within the Outbreak Reporting Tool Protocol. The updated outbreak checklist is aligned to the NIPCM and is designed to support staff with the prevention and control of suspected or confirmed incidents and outbreaks in hospital settings. This outbreak checklist demonstrates application of controls as recorded in both the respiratory short form and full outbreak reporting tool. • Appendix 15: Healthcare Infection Incident and Outbreak Reporting Tool (HIIORT) has now also been removed from the National Infection Prevention and Control Manual (NIPCM). All boards have been provided with their local bespoke version of the outbreak reporting tool (ORT) for reporting of incidents and outbreaks in line with chapter 3 of the NIPCM.
26 Jan 2024		• Updated Ventilator Associated Pneumonia (VAP) Quality Improvement Tool literature review The NIPCM contains a number of quality improvement tools which can assist in the reduction of HAIs. ARHAI Scotland have recently published an updated literature review to support the Ventilator Associated Pneumonia (VAP) Prevention bundle developed by SICSAG.

9 Feb 2024		• Update to definition of ‘an exceptional infection episode’ in chapter 3 The definition of ‘an exceptional infection episode’ has been updated to provide additional clarity and the scientific evidence base which informs this literature review remains extant. The previous definition stated:

Date	Version	Changes
		‘A single case of an infection that has severe outcomes for an individual patient OR has major implications for others (patients, staff and/or visitors), the organisation or wider public health e.g., infectious diseases of high consequence such as VHF or XDR-TB, botulism, polio, rabies, diphtheria.’ The updated definition now states: “a single case of rare infection that has severe outcomes for an individual AND has major implications for others (patients, staff and/or visitors), the organisation or wider public health for example, high consequence infectious disease (HCID) OR other rare infections such as XDR-TB, botulism, polio, rabies, or diphtheria.”
7 Jun 2024		• New Care Home IPC Resource Toolkit in CH IPCM The new Care Home Infection Prevention and Control (IPC) Resource Toolkit is a collection of care home related IPC guidance, resources and tools from national and international organisations which can support local IPC adoption and implementation. It has been structured specifically to support care home staff easily identify key IPC materials. The toolkit should be used in conjunction with the Care Home Infection Prevention and Control Manual (CH IPCM) and supporting resources.

27 Jun 2024		• New Notifiable Organism entry now included in A-Z An update has been made to the A-Z of pathogens to show if an organism is notifiable. Previously this option was only included for diseases and has been added to provide clarity.

Date	Version	Changes
4 Jul 2024		• Update to guidance on disposal of sharps boxes On 20 June Section 1.9 of the NIPCM was updated and the reference to disposal of sharps boxes 'following 3 months of assembly' has been removed after consideration of the lack of evidence that supports this. The bullet now reads 'be disposed of when the manufacturers' fill line is reached.' Updates to the waste literature review will follow when this review has been completed. Boards may choose to implement this change ahead of these full updates.
4 Jul 2024		• Transmission-based precautions (TBPs) definitions literature review update now added to Chapter 2 The transmission-based precautions definitions literature review is currently under review and has not yet been published. To keep stakeholders aware of progress we have produced a summary highlighting the main areas of change, background to these changes and how these will impact practice.

29 Jul 2024		• Launch of the new 'water' section of Chapter 4 in the National Infection Prevention and Control Manual (NIPCM) This chapter content supports the prevention and management of infection related incidents and outbreaks associated with healthcare water. The evidence-based content has been informed by a new NIPCM systematic literature review and development of recommendations and good practice points. These, including the benefits, harms, feasibility issues and expert opinion, can be read in detail in the new Considered Judgement Forms.

Date	Version	Changes
1 Aug 2024		• Update to isolation period for COVID-19 for hospitalised patients The isolation period for COVID-19 has changed. The reduction in isolation period aligns with that of UKHSA guidance.

Scottish Government Letters

Ref	Title	Link to the Scottish Government website
CDO(2021)08	Infection, protection and control guidance	NHS Scotland - Publications
CDO(2021)10	Infection, protection and control mitigations: update	NHS Scotland - Publications
CDO(2021)11	Infection, protection and control mitigations: update	NHS Scotland - Publications
CDO(2022)01	De-escalation of COVID-19 infection prevention and control (IPC) measures	NHS Scotland - Publications
CEL(2007)18	SHFN 30 AND HAI-SCRIBE implementation strategy	NHS Scotland - Publications
CEL(2008)25	Fire safety policy for NHSScotland 2008	NHS Scotland - Publications
CEL(2008)35	Research into Automatic fire suppression systems in new healthcare buildings	NHS Scotland - Publications
CEL(2008)48	Provision of single room accommodation and bed spacing	NHS Scotland -

		Publications
CEL(2009)43 (superseded)	Safety of health, social care, estates and facilities equipment: NHS Board and local authority responsibilities	NHS Scotland - Publications
CEL(2009)50	Review of construction procurement policy for NHSScotland	NHS Scotland - Publications
CEL(2010)14	Sustainable development good corporate citizenship assessment model for NHSScotland	NHS Scotland - Publications
CEL(2010)19	A policy on design quality for NHSScotland	NHS Scotland -

		Publications
CEL(2010)27	Provision of single room accommodation and bed spacing	NHS Scotland - Publications
CEL(2010)35 (superseded)	A policy for property and asset management	NHS Scotland - Publications
CEL(2011)11 (superseded)	Fire Safety Policy for NHSScotland	NHS Scotland - Publications
CEL(2012)03	Water sources and potential infection risk to patients in high-risk units	NHS Scotland - Publications
CEL(2013)08	Water sources and potential infection risk to patients in high-risk units – revised guidance	NHS Scotland - Publications
CEL(2013)14	NHSScotland waste management action plan 2013-2016	NHS Scotland - Publications
CEL92009)19	Scottish capital investment manual for NHSScotland	NHS Scotland - Publications
CMO(2021)20	Respiratory viral Infection in children: clinical pathway	NHS Scotland - Publications
CMO(2022)38	Community Acute Respiratory Infection (CARI) Surveillance	NHS Scotland - Publications
CMO(2023)04	Community Acute Respiratory Infection (CARI) Surveillance	NHS Scotland - Publications

CNO(2011)13	Accurate recording of deaths from healthcare associated infection and action	NHS Scotland - Publications
CNO(2012)01	National Infection Prevention and Control Manual for NHSScotland: chapter 1: Standard Infection Control Precautions (SICPs) policy	NHS Scotland - Publications
CNO(2012)01 update	National infection prevention and control manual for NHSScotland: chapter 1: standard infection control precautions (SICPs) policy update May 2012	NHS Scotland - Publications
CNO(2013)02	Healthcare associated infection (HAI) and antimicrobial resistance (AMR) priorities 2013-1	NHS Scotland - Publications
Consultation paper	Healthcare Associated Infections – inspection, assurance and public confidence	NHS Scotland - Publications

DL(2015)19	Healthcare associated infection (HCAI) and antimicrobial resistance (AMR) policy requirements	NHS Scotland - Publications
DL(2018)01	Structural design of cladding systems	NHS Scotland - Publications
DL(2019)23	Healthcare associated infection (HCAI) and antimicrobial resistance (AMR) policy requirements	NHS Scotland - Publications
DL(2020)01	Healthcare associated infection (HAI): guidance for staff screening during healthcare associated infection incidents and outbreaks	NHS Scotland - Publications
DL(2021)14	NHSScotland Assure Quality in the Healthcare Environment	NHS Scotland - Publications
DL(2021)25	Recommendations from the Independent Review of the Queen Elizabeth University Hospital	NHS Scotland - Publications
DL(2021)46	Launch of the Scottish Winter 202122 Respiratory Infections in Health and Care settings - IPC addendum	NHS Scotland - Publications
DL(2022)07	De-escalation of COVID-19 infection prevention and control (IPC) measures in Health and Social Care settings to alleviate system pressures	NHS Scotland - Publications
DL(2022)12 (Superseded)	Managing Health and Social Care Staff with symptoms of a respiratory infection, or a positive COVID-19 test, as part of the Test and Protect	NHS Scotland - Publications
DL(2022)14	Publication of Healthcare Improvement Scotland Infection Prevention and Control Standards	NHS Scotland - Publications
DL(2022)27	Scottish health technical note sustainable design and construction (SDAC) guide (SHTN 02-	NHS Scotland -

	01)	Publications
DL(2023)01 EXTANT	Guidance on infection prevention and control, face mask and face covering use and patient testing for covid-19 infection	NHS Scotland - Publications
DL(2023)03 V2.0	NHSScotland Assure Key State Authorisation Reviews (KSAR) - commissioning and handover	NHS Scotland - Publications
DL(2023)06	Further Update on Standards on Healthcare Associated Infections and Indicators on Antibiotic Use and changes to Hospital Onset Covid-19 Reporting	NHS Scotland - Publications
DL(2023)17	Publication of the 'Healthcare Associated Infection Strategy 2023-2025’	NHS Scotland - Publications
DL(2023)23	Intra-NHSScotland Information Sharing Accord 2023	NHS Scotland -

		Publications
DL(2024)01 EXTANT	Guidance on Infection Prevention and Control, Surveillance and vaccinations for influenza and covid-19	NHS Scotland - Publications
DL(2024)02	NHSScotland: Whole System Infrastructure Planning	NHS Scotland - Publications
DL(2024)11	NHSScotland Infection Prevention and Control (IPC) roles and responsibilities, including IPC team and specialist IPC role descriptor	NHS Scotland - Publications
DL(2024)17	Launch of the new 'water' section in chapter 4 of the National Infection Prevention and Control Manual	NHS Scotland - Publications
DL(2024)24	ARHAI Scotland and Healthcare Associated Infection (HCAI) Related Incidents, Outbreaks and Data Exceedance Reporting and Communication Requirements	NHS Scotland - Publications
DL(2024)28	Fire Safety Policy for NHSScotland	NHS Scotland - Publications
DL(2024)29	Publication of new deliverables for the second phase of the 'Healthcare Associated Infection Strategy 2023-2025'	NHS Scotland - Publications
DL(2024)32	Safety of Health, Social Care, Estates and Facilities Equipment: NHS Board and Local Authority Reponsibilities	NHS Scotland - Publications
HDL(2001)20	Fire Safety Policy	NHS Scotland - Publications
HDL(2001)47 (superseded)	Construction Procurement Policy	NHS Scotland - Publications

HDL(2005)08 (superseded)	Infection control - Organisational issues	NHS Scotland - Publications
HDL(2006)39	National Procurement use of national contracts for agency labour purchase and review of public procurement in Scotland	NHS Scotland - Publications
HDL(2006)58 (superseded)	A Policy on Design Quality for NHSScotland	NHS Scotland - Publications
n/a	Publication of 'The Infection Prevention Workforce: Strategic Plan 2022 – 2024'	NHS Scotland - Publications

cont'd

NHSSCOTLAND ASSURE TRAINING AND EDUCATION OPPORTUNITIES

Date	Type of event	Title/Topic
2018/05/11	Info Sharing	Ring main units (Tayside) presentation
2018/05/23	Info Sharing	IET code of practice building infrastructure (all boards) presentation
2018/11/01	Conference	Scottish health and social care facilities conference: Upping the pace of change
2018/11/29	Info Sharing	Lessons learned (all north boards hosted at Tayside) presentation
2018/12/10	Formal Training Course	HAI-SCRIBE
2018/12/11	Formal Training Course	HAI-SCRIBE
2018/01	Formal Training Course	Estates & Asset Management System (EAMS)
2018/01	Formal Training Course	Frameworks Scotland 2
2018/04	Formal Training Course	NEC4 Engineering and Construction Contract Training
2018/11	Drop-In Session	Estates & Asset Management System (EAMS)
2018/11	Workshop	Regional Group - Operational Matters

2018/11	Workshop	Practitioner Group - Strategic Matters
2018/11	Formal Training Course	NEC3 /4 Contract Management and Awareness
2018/11	1:1 Session	Nominated Officer
2018/12	Formal Training Course	Building Information Modelling (BIM)
2019/04/17	Formal Training Course	HAI-SCRIBE
2019/04/24	Formal Training Course	HAI-SCRIBE
2019/08/22	Formal Training Course	HAI-SCRIBE
2019/08/28	Info Sharing	Fire Damper training (Borders and NHSD&G) presentation
2019/10/31	Conference	Scottish health and social care facilities conference: Healthy Estates Healthy Outcomes
2019/11/27	Formal Training Course	HAI-SCRIBE
2019/01	Formal Training Course	Estates & Asset Management System (EAMS)
2019/01	Workshop	PPP Training
2019/01	Workshop	Regional Group - Operational Matters
2019/01	Workshop	Practitioner Group - Strategic Matters
2019/01	Formal Training Course	NEC3 /4 Contract Management and Awareness
2019/01	1:1 Session	Nominated Officer
2019/03	Workshop	Climate Change Risk Assessment (CCRA) and Adaptation Planning Tool Workshop -1
2019/04	Info Sharing	Bird dropping guidance (all boards) guidance and presentation

2019/06	Formal Training Course	NEC4 Engineering and Construction Contract Training
2019/07	Formal Training Course	NEC4 Engineering and Construction Contract Training
2020/01	Formal Training Course	Estates & Asset Management System (EAMS)
2020/01	Workshop	PPP Training
2020/01	Workshop	Regional Group - Operational Matters
2020/01	Workshop	Practitioner Group - Strategic Matters

2020/01	Formal Training Course	NEC3 /4 Contract Management and Awareness
2020/01	1:1 Session	Nominated Officer
2020/02	Workshop	NHS Orkney CCRA and Adaptation Planning Tool Workshop
2020/03	Formal Training Course	Food in Hospitals Assessment - training session delivered by HFS with additional speakers from the boards, training on the review process, submission of evidence, panel reviews and reporting in addition to using the software.
2020/11	Workshop	Climate Change Risk Assessment (CCRA) and Adaptation Planning Tool Workshop - 2
2020/12	Formal Training Course	Conflict Avoidance Process
2020/01/08	Info Sharing	Water lessons (NHS Orkney and PSCP) presentation
2020/01/24	Formal Training Course	HAI-SCRIBE
2020/02/04	Formal Training Course	Food in Hospitals Assessment - training session delivered by HFS with additional speakers from the boards, training on the review process, submission of evidence, panel reviews and reporting in addition to using the software.
2020/02/24	Formal Training Course	HAI-SCRIBE
2020/02/25	Formal Training Course	HAI-SCRIBE
2020/04/20	Info Sharing	Pandemic oxygen demand (all boards) presentation and dashboard
2020/08/12	Formal Training Course	HAI-SCRIBE
2020/09/02	Formal Training Course	HAI-SCRIBE

2021/01	Formal Training Course	Estates & Asset Management System (EAMS)
2021/01	Workshop	PPP Training
2021/01	Workshop	Regional Group - Operational Matters
2021/01	Workshop	Practitioner Group - Strategic Matters
2021/01	Formal Training Course	NEC3 /4 Contract Management and Awareness
2021/01	1:1 Session	Nominated Officer
2021/03	1:1 Session	Environmental Management Systems (EMS)
2021/04	Formal Training Course	Common Data Environment Training (CDE)

2021/04	Formal Training Course	Frameworks Scotland 3
2021/05	Formal Training Course	Common Data Environment Training (CDE)
2021/05	Workshop	NHS Fife CCRA and Adaptation Planning Tool Workshop
2021/06	Workshop	NHS Forth Valley CCRA and Adaptation Planning Tool Workshop
2021/10	Formal Training Course	Frameworks Scotland 3
2021/11	Workshop	NHS Shetland CCRA and Adaptation Planning Tool Workshop
2021/01/23	Formal Training Course	HAI-SCRIBE
2021/04/20	Formal Training Course	HAI-SCRIBE
2021/04/21	Formal Training Course	HAI-SCRIBE
2021/05/05	Formal Training Course	HAI-SCRIBE
2021/06/16	Info Sharing	Lessons learned from NHS GJ (NHS GJNH) discussion
2021/06/21	Learning Network	Introduction to the Learning Network and Lessons learned from the HFS & ARHAI Scotland Interim Review Service
2021/07/15	Info Sharing	Lessons learned from KSAR (NHS Highland) discussion
2021/07/26	Formal Training Course	HAI-SCRIBE
2021/08/30	Formal Training Course	HAI-SCRIBE
2021/09/21	Learning Network	Lessons learned and Learning Network channel launch
2022/01/17	Formal Training Course	HAI-SCRIBE
2022/03/17	Learning Network	Workforce Planning
2022/05/11	Formal Training Course	HAI-SCRIBE
2022/05/17	Formal Training Course	HAI-SCRIBE

2022/05/24	Formal Training Course	HAI-SCRIBE
2022/05/26	Formal Training Course	HAI-SCRIBE
2022/06/07	Formal Training Course	HAI-SCRIBE
2022/06/22	Formal Training Course	HAI-SCRIBE
2022/07/26	Learning Network	KSAR IA Lessons Learned
2022/08/23	Formal Training Course	HAI-SCRIBE
2022/09/21	Learning Network	IPC - Project stage by stage overview
2022/09/29	Formal Training Course	HAI-SCRIBE

2022/10/20	Learning Network	KSAR OBC Lessons Learned
2022/11/03	Conference	NHSScotland Assure Conference: Excellence in the healthcare environment
2022/12/05	Learning Network	KSAR FBC Lessons Learned
2022/12/13	Info Sharing	Interim review service lessons learned (presentation and web published document)
2022/01	Workshop	PPP Training
2022/01	Workshop	Regional Group - Operational Matters
2022/01	Workshop	Practitioner Group - Strategic Matters
2022/01	1:1 Session	Focused support - long term support
2022/01	Formal Training Course	NEC4 Engineering and Construction Contract Training
2022/01	Formal Training Course	NEC3 /4 Contract Management and Awareness
2022/01	Formal Training Course	Frameworks Scotland 3 Awareness
2022/02	Workshop	NHS Lanarkshire CCRA and Adaptation Planning Tool Workshop
2022/03	Formal Training Course	Environmental Management Systems (EMS)
2022/03	Workshop	NHS Forth Valley CCRA and Adaptation Planning Tool Workshop
2022/05	Formal Training Course	NEC4 Engineering and Construction Contract Training

2022/11	Workshop	NHS Fife CCRA and Adaptation Planning Tool Workshop
2023/03/16	Learning Network	Research - An introduction to research with NHSScotland Assure: opportunities, networks, and ways to break down barriers
2023/04/20	Learning Network	Assurance - The NHSScotland Assure Key Stage Assurance Review (KSAR) from the Health Boards Perspective
2023/04/23	Info Sharing	KSAR from the Health Boards Prospective NHS Lanarkshire and NHS GGC
2023/04/27	Drop-In Session	Strategic Asset Management System (SAMS)
2023/06/01	Overview/Presentation	SCART
2023/06/19	Formal Training Course	HAI-SCRIBE
2023/06/20	Formal Training Course	SCART
2023/06/29	Overview/Presentation	SCART
2023/07/03	Formal Training Course	SCART
2023/07/05	Formal Training Course	SCART
2023/07/12	Overview/Presentation	SCART
2023/07/21	Formal Training Course	SCART
2023/07/26	Formal Training Course	SCART
2023/07/27	Informal Training	SCART
2023/07/28	Formal Training Course	SCART
2023/09/05	Drop-In Session	Strategic Asset Management System (SAMS)
2023/09/15	Formal Training Course	HAI-SCRIBE

2023/09/22	Formal Training Course	HAI-SCRIBE
2023/09/27	Formal Training Course	HAI-SCRIBE
2023/09/28	Info Sharing	RAAC Information Sessions
2023/11/06	Learning Network	The NHSScotland Design Assessment Process (NDAP): Lessons learned through a decade of use
2023/11/08	Overview/Presentation	SCART
2023/12/01	Overview/Presentation	SCART

2023/12/05	Conference	NHSScotland Assure Conference: Quality in the healthcare environment
2023/12/13	Overview/Presentation	SCART
2023	Formal Training Course	Food in Hospitals Assessment - training session delivered by HFS with additional speakers from the boards, training on the review process, submission of evidence, panel reviews and reporting in addition to using the software.
2023/01	Workshop	PPP Training
2023/01	Drop-In Session	PPP Training
2023/01	Workshop	Regional Group - Operational Matters
2023/01	Workshop	Practitioner Group - Strategic Matters
2023/01	1:1 Session	Focused support - long term support
2023/01	Formal Training Course	NEC4 Contract Training Online Modules
2023/01	Formal Training Course	NEC4 Contract Training Online Modules
2023/01	Formal Training Course	NEC4 Contract Training Online Modules
2023/01	Formal Training Course	NEC4 Contract Training Online Modules
2023/01	Formal Training Course	NEC3 /4 Contract Management and Awareness
2023/01	1:1 Session	Nominated Officer
2023/01	Formal Training Course	Environmental Management and Sustainability
2023/01	Workshop	NHS Tayside CCRA and Adaptation Planning Tool Workshop
2023/02	Workshop	NHS 24 CCRA and Adaptation Planning Tool Workshop

2023/03	Workshop	Environmental Management Systems (EMS)
2023/03	Workshop	NHS Grampian CCRA and Adaptation Planning Tool Workshop
2023/04	Drop-In Session	NHS Golden Jubilee Waste Management
2023/05	Formal Training Course	NEC4 Engineering and Construction Contract Training
2023/07	Formal Training Course	Strategic Asset Management System (SAMS)
2023/07	Formal Training Course	Capital Project Delivery using NEC4 with Frameworks Scotland 3 Amendments
2023/07	Drop-In Session	NHS Orkney Waste Management

2023/08	Formal Training Course	Strategic Asset Management System (SAMS)
2023/08	Workshop	NHS Borders CCRA and Adaptation Planning Tool Workshop
2023/09	Formal Training Course	Strategic Asset Management System (SAMS)
2023/09	Formal Training Course	Strategic Asset Management System (SAMS)
2023/09	Formal Training Course	Strategic Asset Management System (SAMS)
2023/09	Formal Training Course	Strategic Asset Management System (SAMS)
2023/09	1:1 Session	NHS Lothian Waste Management
2023/10	Formal Training Course	Strategic Asset Management System (SAMS)
2023/10	Drop-In Session	NHS Golden Jubilee Waste Management
2023/10	Formal Training Course	Dental training representation from various Boards - Waste Management
2023/11	Formal Training Course	Strategic Asset Management System (SAMS)
2023/11	1:1 Session	NHS Orkney Adaptation Planning Session
2023/12	Workshop	Golden Jubilee University National Hospital CCRA and Adaptation Planning Tool Workshop
2023/12	1:1 Session	The State Hospital Board CCRA and Adaptation Planning Session
2024/01/23	Overview/Presentation	SCART
2024/01/26	Overview/Presentation	SCART
2024/02/07	Overview/Presentation	SCART
2024/02/13	Overview/Presentation	SCART
2024/02/28	Informal Training	SCART

2024/03/01	Formal Training Course	SCART
2024/03/05	Overview/Presentation	SCART
2024/03/07	Overview/Presentation	SCART
2024/03/08	Formal Training Course	SCART
2024/03/14	Formal Training Course	SCART
2024/03/19	Formal Training Course	HAI-SCRIBE
2024/03/20	Info Sharing	KSAR surgery discussion
2024/03/22	Formal Training Course	SCART

2024/03/22	Formal Training Course	Medical locations training (NSS) presentation
2024/03/26	Overview/Presentation	SCART
2024/04/10	Formal Training Course	SCART
2024/04/12	Formal Training Course	Medical locations training (all) presentation
2024/04/24	Learning Network	Quality in Construction - Property and Capital Planning
2024/04/24	Informal Training	SCART
2024/04/19	Spotlight Session	Sustainable Surgery and Translational Technology
2024/05/09	Formal Training Course	SCART
2024/05/23	Informal Training	SCART
2024/05/29	Informal Training	SCART
2024/06/05	Formal Training Course	HAI-SCRIBE
2024/06/18	Informal Training	SCART
2024/06/24	Spotlight Session	Automating CSSDs for Enhanced Efficiency and Safety
2024/06/26	Informal Training	SCART
2024/07/02	Formal Training Course	Strategic Asset Management System (SAMS)
2024/07/30	Learning Network	Building Resilience: Adapting Healthcare Systems to Climate Change
2024/07/31	Informal Training	SCART
2024/08/06	Drop-In Session	Strategic Asset Management System (SAMS)
2024/08/28	Informal Training	SCART
2024/09/06	Formal Training Course	Medical locations training (all) presentation

2024/09/12	Spotlight Session	Steam Quality: when and where. A focus on non-condensable gases
2024/09/25	Informal Training	SCART
2024/09/26	Info Sharing	Electricity at Work Regulations (all) presentation
2024/10/04	Info Sharing	CIBSE guide M NSS
2024/11/08	Formal Training Course	SCART
2024/11/13	Info Sharing	Hospital Helicopter Landing Sites
2024/11/24	Learning Network	Sustainability Environmental Management System

2024/11/26	Formal Training Course	Strategic Asset Management System (SAMS)
2024/11/27	Informal Training	SCART
2024/12/09	Formal Training Course	Strategic Asset Management System (SAMS)
2024/12/17	Formal Training Course	HAI-SCRIBE
2024/12/19	Formal Training Course	HAI-SCRIBE
2024/12/19	Formal Training Course	SCART
2024/01	Drop-In Session	PPP Training
2024/01	Workshop	Regional Group - Operational Matters
2024/01	Workshop	Practitioner Group - Strategic Matters
2024/01	1:1 Session	Focused support - long term support
2024/01	Formal Training Course	NEC3 /4 Contract Management and Awareness
2024/01	1:1 Session	Nominated Officer
2024/01	Tutorial	Fire safety management system
2024/01	Workshop	CCRA and Adaptation Planning workshops
2024/02	Formal Training Course	Strategic Asset Management System (SAMS)
2024/03	Formal Training Course	NHSScotland Construction Design Management (CDM) Regulations
2024/03	Workshop	Environmental Management Systems (EMS)
2024/04	Formal Training Course	NHSScotland Healthcare Planner Framework
2024/05	Formal Training Course	Dental training representation from various Boards - Waste

		Management
2024/05	Formal Training Course	Dental training representation from various Boards - Waste Management
2024/06	1:1 Session	RAAC Programme
2024/06	Formal Training Course	RICS Conflict Avoidance Process and Frameworks Scotland 3 Requirements
2024/07	1:1 Session	Waste training - NHS Highland Sustainability Team
2024/09	Formal Training Course	NHSScotland Healthcare Planner Framework

2024/09	Other	Waste Management - Recording
2024/25	Development	Development of educational materials relating to epidemiology and surveillance for the GCU IPC in a Global Context module.
2024/25	Development	Continued development and maintenance of the ARHAI National Surveillance Training Channel.
2024/25	Formal Training Course	Delivery of an introduction to epidemiology and surveillance methods for IPC
2024/25	Formal Training Course	Delivery of Gram Negative Bacteraemia Improvement (GNBI) online seminar session for NHS Board IPC teams and key stakeholders.
2024/25	Development	Develop a community of practice for Healthcare Scientists/analysts supporting IPC in NHS boards
2024/25	Development	Support to SIPCEP e-Learning Transition Plan – Foundation Layer (NPGE)
2024/25	Development	• Animation Understanding IPC considerations for the design of a safe healthcare water system - Introduction - Design
2024/25	Formal Training Course	IPC KSAR Surgery - KSAR experience (at OBC stage) for the Monklands Replacement Project (MRP).
2024/25	Informal Training	Toolbox Talks: IPC Risks in Construction

2024/25	Formal Training Course	Online seminars to improve and enhance local staff knowledge, understanding and awareness of IPC in Care Home settings - Scabies Back to Basics - Waste Management
2024/25	Formal Training Course	IPC context for the Raising teachers' awareness of AMR and the importance of including AMR in education
2025/01/31	Overview/Presentation	SCART
2025/02/05	Info Sharing	KSAR surgery discussion
2025/02/12	Formal Training Course	SCART
2025/02/12	Formal Training Course	Strategic Asset Management System (SAMS)

2025/03/13	Learning Network	What's the PPPoint?
2025/01	Formal Training Course	Strategic Asset Management System (SAMS)
2025/26	Formal Training Course	Delivery of an introduction to epidemiology and surveillance methods for IPC
2025/26	Formal Training Course	Delivery of a simulated outbreak scenario for Medical Microbiology trainees and IPCTs
2025/26	Development	Supporting Higher Education: support GCU IPC in a Global Context module.
2025/26	Development	Review of SIPCEP Intermediate Layer SSI module
2025/26	Development	Continued development and maintenance of the ARHAI National Surveillance Training Channel
2025/26	Development	Supporting Higher Education: support GCU IPC in a Global Context module (NPGE/ICBED)
2025/26	Development	Engagement with higher education to promote IPC career pathways (NPGE)
2025/26	Development	Support to SIPCEP e-Learning Transition Plan – Foundation Layer cont’d (NPGE)
2025/26	Development	Support to SIPCEP e-Learning Transition Plan - Intermediate Layer (NPGE)

2025/26	Development	Educational animation Understanding IPC considerations for the design of a safe healthcare water system - Construction - Commissioning - Handover
2025/26	Development	Animation Understanding IPC risk associated with the design, construction and commissioning and handover of a safe healthcare ventilation system" - Introduction
2025/26	Informal Training	Toolbox Talks IPC Risks in Flushing Water Outlets

2025/26	Informal Training	Toolbox Talks IPC Risks in Building Services
2025/26	Informal Training	Continue delivery of Online seminars to improve and enhance local staff knowledge, understanding and awareness of IPC in Care Home settings - Topic TBC July 25 - Topic TBC November 25
	Formal Training Course	Facilities Monitoring Framework - Training covers all aspects of the Facilities Monitoring Framework so includes how to carry out audits, how to use the audit tool, reporting, trouble shooting, action planning

Scottish Hospitals Inquiry
Glasgow 4 Part 3

Second Supplementary Statement of Dr Christine Peters
MBChB BSc FRCPATH DTM&H

June 2025

Term of Reference 4

(To consider whether any individual or body deliberately concealed or failed to disclose evidence of wrongdoing or failures in performance or inadequacies of systems whether during the life of the projects or following handover, including evidence relating to the impact of such matters on patient care and patient outcomes; and whether disclosures of such evidence was encouraged, including through implementation of whistleblowing policies, within the organisations involved)

The Issue

1. The disclosure and reporting of matters which are relevant to this Term of Reference ('TOR') and which have, or may lead to, adverse impacts on patient care are still very much discouraged by the Infection and Prevention Control Team ('IPCT') at GGC who are responsible for reporting to ARHAI.

Relevant Examples

Fusarium

2. In 2023, we had a positive blood culture for Fusarium (typically a water borne environmental mould) in a patient on ward 4B. The patient tested positive 17 days after [redacted] was admitted to hospital. It is at least possible that [redacted] contracted this infection from the hospital environment. Alternatively, it could have come from a contaminated product used in [redacted] medical care, which would make reporting the infection important as there could have been other cases in other hospitals (as recently happened with

Burkholderia). Tragically, this patient died.

3. I am concerned about the lack of straightforward discussion, communication and reporting of this case between IPCT and Microbiology. There had been a water leak on 4B in the run up to this case which I discovered informally during a conversation on a ward round. The building work to fix it had gone ahead without IPCT/HAI SCRIBE sign off. I believe that this case was not reported to ARHAI. GGC/ARHAI should be asked to confirm the position. At a Senior Management Team meeting, the lead ICD complained that someone had told the Scottish Government about this case and that it had created a lot of work for the IPCT. I found the lead ICD's approach to this intimidating.

4. As matters stand, the IPCT are reluctant to share air sampling results with the Microbiologists. I assume that they do this because they do not want to be asked difficult questions about the results. There can be no justification for this secrecy. It endangers informed teamwork for the most vulnerable patient group and suggests that no lessons have been learned at GGC. The issue is solely with the IPCT; the clinical teams treating the patients often actively seek out Microbiology input and support.

Pseudomonas

5. Also in 2023, a child contracted Pseudomonas in the PICU and subsequently died. I believe that Pseudomonas was listed on [redacted] death certificate as a contributing cause. I was told by an Infectious Diseases Consultant that a previous patient who had been nursed in the same room had also contracted Pseudomonas. I obtained the sample from the previous patient, and sent both of the organisms for typing. The typing matched.

6. The lead ICD was unhappy that I had sent the result for typing without checking with her first. She said that the IPCT did not know about the cases (despite surveillance being in place). I asked her, at a meeting in front of other staff, whether she would have agreed to the samples being sent for typing if I had sought her approval in advance. She stated clearly that she would not have agreed. I am aware that, after I raised the result, the isolates were sent for whole genomic sequencing ('WGS'). I have not been informed by the IPCT of what the WGS results showed, but I have been told informally by

colleagues that the two results were extremely closely related which suggests that both of these children got Pseudomonas from an environmental source in that bedspace.

7. I am also aware that there was a persistent problem with leaks from the sink in that bedspace which may have been the source of the organism. In June 2024, the lead ICD challenged Microbiology colleagues about the typing of a Pseudomonas case from a Schiehallion patient with a bacteraemia. This is evidenced by an email chain dated 17 to 19 June 2024 titled "*Pseudomonas aeruginosa in Portacatch BC SCH pt 1709225580*[1]" which I would like to provide to the Inquiry.

Staph epidermidis

8. Earlier this year there were a cluster of Staph epidermidis cases in the PICU. All the cases were in children who had undergone cardiothoracic surgery and had been treated with ECMO. To my knowledge, no IPC investigation had taken place when this was brought to my attention. These organisms are normally sensitive to Vancomycin but in fact this treatment was failing and the patients had to be treated with Linezolid which causes a number of very unpleasant side effects. I arranged for WGS to be undertaken, which the lead ICD had not arranged, and the results came back within 10 SNPS of each other. This suggests that the patients were all infected with the same organism, pointing to a localised transmission issue. ARHAI should be asked about what was reported to them in relation to these cases and when.

9. In my view, a number of issues arise in relation to these Staph epidermidis cases. First, the clustering of these cases was not initially taken seriously by the lead ICD. Second, communication with Microbiology was inadequate. Third, the lead ICD's understanding was deficient because she repeatedly maintained that as the organisms were normally "sensitive" to Vancomycin there was no issue, even though Vancomycin treatment had not in fact worked. She demonstrated this misunderstanding at Consultant meetings in front of other colleagues.

10. I was concerned about the implications of the virulence and raised resistance to basic

[1] A53844160 – Bundle 52, Volume 5, Document 23, Page 108.

antibiotics. I therefore communicated with the Antimicrobial Resistance Team at ARHAI who was in agreement about the importance of reporting the situation and managing it as an outbreak. I have a series of emails about this which I would like to produce to the Inquiry.[2]

Stenotrophomonas

11. I have a sub specialist interest in Cystic Fibrosis ('CF') microbiology. I have been responsible for giving advice to the CF teams for a decade. Stenotrophomonas is one of the most common multi-drug resistant organisms found in CF patients. Despite this, the lead ICD has excluded me from all IPCT discussions regarding a cluster of Stenotrophomonas cases. She has dismissed my opinion and expertise in the area. The deliberate exclusion of key Microbiology colleagues is dangerous for transparency, communication and accountability. I have an email which demonstrates that I was excluded from discussion of these five cases which I would like to provide to the Inquiry.[3] I am now aware that the lead ICD also spoke to the Colindale laboratory who reported the cluster, and insisted on a different interpretation of the results in their reporting. I am now in possession of WGS from Colindale which the Inquiry should use to assess the learning, or lack thereof, on the part of the IPCT relating to dealing with environmental gram negative organisms and the impact of this on the management of future incidents at QEUH.

Vancomycin Resistant Enterococci

12. A further example of exclusion is the failure by the IPCT to share WGS results and typing analysis for Vancomycin Resistant Enterococci with Microbiology, despite being asked directly to provide this information to inform a professional understanding of what is going on in the relevant units (in this case Renal and BMT which are neighbouring units in the QEUH). Again, it is hard to see any justification for this professional secrecy.

[2] A53844166 – Bundle 52, Volume 5, Document 26, Page 121; A53844176 – Bundle 52, Volume 5, Document 27, Page 125; A53844173 – Bundle 52, Volume 5, Document 28, Page 128.
[3] A53844181 – Bundle 52, Volume 5, Document 20, Page 98; A53844185 – Bundle 52, Volume 5, Document 21, Page 100.

Proposed recommendations on reporting

13. As demonstrated by the above examples, there is still a culture of secrecy surrounding the reporting of infections to ARHAI. It is vital that effective steps are taken to address this problem. For example, as a microbiologist working in a hospital with a history of environmental factors contributing to patient infections, I believe that I should be able to access a list of what infections have and have not been reported to ARHAI. The Inquiry should make a recommendation to the effect that health boards should be required to make information about reports to ARHAI freely available to clinical staff so that they can have confidence in the reporting of infections to ARHAI. The Inquiry should also recommend that ARHAI create a reporting system so that clinicians in any hospital who are concerned about an infection, and who establish that it has not been reported to ARHAI, can then report that to ARHAI themselves without fear of repercussions and without having to expose themselves to the dangers of enduring the "whistleblowing" procedures.

The role of the Independent National Whistleblowing Officer ('INWO')

14. Given the Inquiry's obligation to make recommendations to Ministers on how any mistakes identified by the Inquiry can be avoided in the future, it is important to have up to date examples of Whistleblowing to ensure that, to the extent that the treatment of whistleblowers has not met an expected standard, a repeat of that treatment in the future can be avoided. I have such whistleblowing experience, including very recent experience of raising matters with the INWO. This experience serves to underline the depressing reality which is that Scottish doctors currently have no efficient and effective route through which they can raise acute patient safety issues in situations where their Health Board fails to act or fails to act in the way the doctor would expect.

15. By way of brief example (although further details and documents can be provided to the Inquiry), in light of my ongoing concerns regarding the handling of current patient safety issues at the QEUH, I made a complaint to the INWO in December 2021. I waive my anonymity in respect of this complaint. The complaint concerned a number of issues relating to water ingress, water supply, ventilation and management of risks from

infection incidents in the QEUH and RHC campus. In May 2024, and despite being seized of the complaint for just over 2 years, the INWO decided to discontinue the investigation of certain parts of my complaint because the INWO perceived there to be an overlap with this Inquiry's Terms of Reference. The parts of my complaint which were discontinued directly pertain to the built environment and infection risks, including in the new build. I found the INWO's decision staggering. Patient safety issues should be investigated with a degree of urgency. The INWO simply abdicated responsibility to the Inquiry which is still more than a year from making any findings or recommendations.

16. My complaint to the INWO also related to my concerns that GGC has failed to create and maintain a culture that values and acts on concerns raised by staff. This part of my complaint was investigated and the INWO found that there was sufficient evidence to uphold my concerns. As a result, the INWO report made some recommendations. However, I have received no communication whatsoever regarding this from anyone within GGC and there has been no follow up by the INWO to check on progress and how my situation has been affected.

17. I also note that a recent report dated March 2025 by Healthcare Improvement Scotland (HIS) identified culture as a major issue in the ED department at the QEUH. The Inquiry should consider the report on this as it illustrates the widespread cultural issues within GGC. See NHS-Greater-Glasgow-and-Clyde-Emergency-Department-Review-Final-Report-March-2025-.pdf[4].

18. The change in leadership at GGC has resulted in no discernible improvement in culture. I have no confidence that the organisation is ready and willing to learn, or that there is an effective external mechanism to monitor and impact their actions and culture.

[4] A52454817 - Bundle 51, Volume 1, Document 7, Page 904.

Term of Reference 7

(To examine what actions have been taken to remedy defects and the extent to which they have been adequate and effective)

19. The actions that have been taken to remedy defects in the water system have not been adequate and effective. I am aware that there have been ongoing water leaks in 4B and elsewhere in 2025. The Inquiry should recover the records of the Estates Department which should detail when leaks have occurred and where over the last 4 years, what the root cause of the leaks was, and what preventative maintenance was implemented. There is work planned/underway to replace toilets in 4B because water leaks round the shower flooring have caused the development of damp in that unit, which houses some of the most vulnerable patients in the hospital. This is the same defect that was identified in 6A and which has been an outstanding action since 2019.[5]

20. I was made aware of these planned works by the staff on the unit who are always proactive in their communications with the Microbiologists, but there has been no communication from the IPCT with me regarding this, despite me being one of the two Microbiologists who are specifically responsible for giving advice on the treatment of infections in these patients, and providing IPC cover in the out of hours period. There are significant potential challenges to continuity and to patient safety arising from this work. To my knowledge no HAI SCRIBE has been undertaken to date. I do not have confidence in the IPCT to manage this based on the recent history of its approach to HAI SCRIBEs (which was the subject of my whistleblow to the INWO). In my opinion, ARHAI or NHS Assure should be asked to supervise the project.

21. In short, the above shows that the defects in the water system have not been effectively remedied because regular leaks are still occurring in high-risk clinical areas.

[5] A53844190 – Bundle 52, Volume 5, Document 25, Page 119.

Term of Reference 9

(To examine the processes and practices of reporting healthcare associated infections within QEUH and determine what lessons have been or should be learned)

22. There is no evidence at all that any lessons have been learned. Such evidence as does exist tends to suggest that in fact no lessons have been learned, and things are as bad, if not worse, than ever in terms of the competence and culture of the IPCT.

Xenophillus

23. There are still occasionally very unusual, potentially environmental organisms detected in the Schiehallion unit. However, the IPCT culture is still one in which there is an assumption that the infection cannot possibly be linked to the hospital environment and sometimes great lengths are gone to to identify other sources rather than consider and investigate an environmental source. One case of Xenophillus was said by the IPCT to have been acquired by a patient from a llama that had been brought to the window of the Children's unit. I was informed that the ICD group had been told this organism was known to be associated with llamas. However, on investigating, I could find no such evidence and raised this point. Indeed, my research showed that it is an organism associated with slurry. In addition to there being no medical association between the organism and llamas (at least which I could find), it transpired that the patient had had no contact with the llama. Instead, the patient had seen the llama, which was outside the building, from the inside of the building. I do not know how the case was reported to ARHAI. In my opinion, the attitude and approach of the IPCT is perfectly illustrated by this Xenophillus case whereby implausible efforts were made to try to identify any conceivable alternative source of infection, no matter how farfetched, rather than seriously consider an environmental source. I am aware that organism was initially misidentified as Paracoccus, which had previously been detected (but possibly misidentified) in Schiehallion water samples. I have been told that the IPCT regards the water system as "safe" and therefore, going forward it cannot be the considered as a potential source for infections. Dr Mumford should be asked to comment on the appropriateness of this approach.

Lessons learned by GGC re treatment of whistleblowers

24. Staff at GGC are likely to be more concerned rather than less concerned about raising concerns given the approach which GGC took towards me, and to other whistleblowers, before and during the Inquiry process. The content of Position Paper 1 is an obvious example, as are many of the witness statements in which I was castigated for raising concerns, and serious allegations made throughout which I have as yet been unable to systematically counter with evidence.

Statement of Hannah Rogers

25. I have now seen the witness statement of Hannah Rogers. I note that Ms Rogers states that she had over a dozen sources. She expresses her concern that there had been reference about "three unnamed sources" which she now believes referred to me, Dr Redding, and Dr Inkster. I note that a member of the GGC communications team made derogatory comments to her about the mental health of these three "sources", presumably referring to me, Dr Redding, and Dr Inkster. This illustrates the approach that GCG take to whistleblowers. Employees in the organisation are aware of this and it prevents them from being able to speak freely. When I returned to my office after giving evidence at the Inquiry, I found that I had received handwritten anonymous notes, left there by various staff members, thanking me for speaking out, who obviously did not feel able to contact me using the GGC email system.

Cryptococcus

26. I made the Inquiry aware of new cases of Cryptococcus during the course of the Glasgow III hearing. I had become aware of these cases through my duties as a microbiologist. The cases had not been reported to ARHAI. Senior members of GGC staff who were asked about these cases said that they didn't know about them, e.g., then Medical Director, Dr Jennifer Armstrong[6] (Day 32, 10 October 2024, columns 132-133), and the current Head of Estates, Professor Thomas Steele[7] (Day 29, 4 October 2024, column 70). GGC should be asked who was aware of the cases, and who they told about the cases. The Inquiry needs to be cognisant of the gaps in powers that ARHAI has in

[6] Transcript - Dr Jennifer Armstrong - 10.10.2024 | Hospitals Inquiry
[7] Transcript - Professor Thomas Steele - 04.10.2024 | Hospitals Inquiry

order to intervene in Board IPCT management and to seriously consider making recommendations for speedier intervention processes.

Dr Sarah Jenkins

27. I recently attended the funeral of Dr Sarah Jenkins. Sarah was a consultant radiologist at QEUH and a formal whistleblower within GGC about very serious issues that she told me about. Sarah took her own life. Her family and friends stated in talks at her funeral, attended by the Chair of the Board of GGC, that her death had been caused by the way in which she was treated by GGC, having raised clinical concerns over a number of years. A tribute fund has been set up to allow people to donate to the Samaritans in her memory. As at the time of writing, almost £14,000 has been raised. The explanatory statement for the fund includes the following:

> *We are heartbroken by the loss of the bright and beautiful Sarah Jenkins...*
>
> *Sarah was an incredibly accomplished medical consultant. Her legacy includes countless lives saved as a Neuro Interventional Radiologist. She was also committed to fighting the cultural and systematic issues within NHSGGC which leave so many medical professionals feeling unsupported in what is an incredibly high stakes, emotionally demanding and difficult job.*
>
> https://sarah-jenkins.muchloved.com

28. My understanding is that Dr Jenkins' whistle blow was not included in the whistleblowing report that was produced by Charles Vincent. I have emails from Dr Jenkins which she sent to me before she died highlighting the fact that her whistle blow had been omitted.[8] I would like to provide an example email to the Inquiry. GGC and Mr Vincent should be asked about why her whistle blow was not included. She was told it was due to an error but to my knowledge she got no further explanation.

29. Dr Jenkins' husband Andrew Rough should also be asked to provide a statement about

[8] A53844199 – Bundle 52, Volume 5, Document 18, Page 86; A53844196 – Bundle 52, Volume 5, Document 19, Page 94.

why he told those present at her funeral, including Lesley Thomson KC, that Dr Jenkins' experience of being a whistleblower in GGC contributed to her tragic death. I am in touch with Mr Rough and he is aware and content that I am raising this with the Inquiry.

Signature: Christine Peters **Print Name**: Christine Peters

Appendix

Scottish Hospitals Inquiry - Hearing Commencing 16 September 2025 - Bundle 51 - Volume 1 - Sir Robert Francis Whistle-blowing Expert Report and supporting documents.

Scottish Hospitals Inquiry - Hearing Commencing 16 September 2025 - Bundle 52 - Volume 5 - Miscellaneous Documents.

Scottish Hospitals Inquiry
Witness Statement of
David Loudon

This is the version of Mr Loudon's draft statement and response to Inquiry questions uploaded to his Connect Workspace on his behalf by CLO on 17 January 2025, then formatted to the Inquiry standard by our Witness Engagement and Support Team. This is the version which the Inquiry is publishing. It should be noted that this response was prepared prior to the Glasgow 4, Part 1 hearing, that there are relevant documents to which Mr Loudon has consequentially not had access. Mr Loudon currently is unwilling to endorse this version as his statement. He remains medically unfit to give evidence.

Personal Details

1. Name, qualifications, chronological professional history, specialism etc – please provide an up-to-date CV to assist with answering this question.

A David Wilson Loudon. CV dated November 2024 attached. It should be noted that the answers provided below are in the main in relation to the Project Director role. It should be noted that when I joined the project in 2013, most of the design and specification has already been signed off by NHS Greater Glasgow and Clyde.

Professional Background

2. Professional role(s) within the NHS.

A Project Director and Director of Facilities and Capital Planning. The role was retitled Director of Property, Procurement and Facilities Management to reflect the responsibilities and wider role of the job. Notably, the procurement function.

3. Professional role (s) at QEUH/RHC, including dates when role(s) was occupied.

A Project Director, June 2013 to January 2016. It should be noted that my predecessor continued to have responsibility and accountability as Project

Director for a period of circa 3 months after my appointment to support the agreed handover process.

4. Area(s) of the hospital in which you worked/work.

A The adults and children's hospitals. The new office block and also, the learning centre. The new car parks and related public realm. Equipping of the hospitals. Migration planning and delivery of staff and patients for the demitting sites. Recladding of the Neurosurgical Building. The ICE Building in partnership with Glasgow University. Construction of Ronald MacDonald House. Demolition of the redundant property assets. It should be noted that the project management services for the projects was undertaken by internal NHS project management staff and appointed consultants. The construction undertaken by external contractors and subcontractors.

5. Role and responsibilities within the above area(s)

A The roles and responsibilities were determined by the job description for Project Director.

6. Who did you report to? Did the person(s) you reported to change over time? If so, how and when did it change?

A I reported to Mr Robert Calderwood, Chief Executive until his retirement and then, Mrs Jane Grant, Chief Executive until my departure from NHS Greater Glasgow and Clyde in January 2018.

7. Who selected you for your role(s)? When were you selected for your role(s)? Please describe the selection process for appointment to this/these roles?

A I applied for the role in response to an advert for the vacancy and attended an interview (remotely as I was working abroad) with the appointed NHS Greater Glasgow and Clyde Selection Panel. It should be noted that NHS Greater Glasgow and Clyde advertised the Project Director and Director of Facilities and Capital Planning – Designate as a single lot. On completion of the Project Director role, I then became the Director of Facilities and Capital Planning. Until then, the role of Director of Facilities and Capital Planning was undertaken by the previous incumbent until his retirement and then, by the Assistant Director of Facilities.

8. Had you worked with any of your QEUH/RHC project team colleagues, estates colleagues, or other NHSGGC colleagues prior your role(s) at QEUH/RHC? If so, who had you worked with before this current role? When did you work with this/these colleague(s)? What role were you in when you worked with this/these colleague(s)? How long were you colleagues in this/these previous role(s)?

A I had not worked with any NHS colleagues before being appointed to the role but as noted in my CV, I worked for Currie and Brown UK Ltd and a number of their staff were already involved in the project prior to my appointment by NHS Greater Glasgow and Clyde.

Specific Role(s) at QEUH/ RHC

9. Confirm the role(s) that you held at NHSGGC?

A Project Director 2013 – 2016. Director of Facilities and Capital Planning from January 2016 to January 2018. During this period, my job designation changed to Director of Property, Procurement and Facilities Management

10. Describe how you came to be appointed to these role(s)?

A Noted in 7 above.

11. What previous working relationships, if any, did you have with those who selected you?

A None

12. Describe your role and responsibilities (including day to day) at QEUH/RHC post January 2015 when the hospital was handed over from Brookfield Multiplex to NHS GGC.

A My roles and responsibilities were as laid out in the job description for the role. On handover of the project in January, my focus with the team was planning for the delivery and installation of equipment and also preparing for the migration of staff and patients from the demitting sites. Typical, my day would consist of numerous meetings, committee meetings, stakeholder management and site tours.

13. How did your role change following handover of the QEUH/RHC in or around January 2015?

A My role didn't change at handover January 2015 in that I continued in the Project Director role until January 2016 when I assumed the role of Director of Director of Capital Planning and Facilities. At this time, I assumed responsibility for capital planning (acute estate comprising 35 hospitals and the health and social care estate comprising 60 health centres and clinics) asset management strategy (including disposal of demitting sites), facilities management (hard and soft), catering production units, transport, telephony, TSSU/decontamination, laundry services, sustainability strategy and management, energy strategy and management, supplies logistics and procurement and strategic and operational direction in relation to fire and security arrangements of all premises.

14. Where was your role in the hierarchy of the organisational structure at QEUH/RHC at handover 2015?

A Project Director.

15. Who did you report to, (name(s) and role(s))?;

A Mr Robert Calderwood, Chief Executive.

16. Describe your relationship with your supervisor in this role.

A My relationship with Mt Calderwood was positive and Professional.

17. Please tell us which staff reported to you, and who you were responsible for in this role, and your relationship with them.

A In accordance with the project organisational structure, Mr Peter Moir the Deputy Project Director and NEC3 Project Manager. My relationship with Mr Moir was positive and professional.

18. How was communication between you and your colleagues? What communication issues, if any, arose?

A Communication was effective and efficient. I do not recall any significant communication issues with my colleagues. I endeavoured to instil a One Team

culture which included the external consultants as they were a key project resource for their expert knowledge and experience in the built environment.

19. How did you keep a record of work delegated?

A No formal records were kept. Activity schedules were not employed during the project. However, regular progress meetings were held with the project delivery team where ongoing deliverables were discussed and agreed to ensure that the construction programme was being achieved. It should also be note that external consultants also attended the meetings. It is my recollection that minutes of meetings with action owners were produced.

20. How was delegated work supervised?

A To answer this question, I require more context but for example, my recollection is that a quality assurance process was used for the Reviewable Design Process (RDD).

21. Which other QEUH teams or departments, if any, did you work closely with?

A Examples include; Infection Control, Nuclear Medicine, Facilities Management, Procurement, Finance, Chief Executives Office, Human Resources, Health and Safety

22. Please describe your working relationship with these QEUH teams or departments

A My relationship was professional.

23. What concerns, if any, did you have about any member of staff? If so, please describe these concerns. What action, if any, did you take in relation to these concerns?

A The Director of Diagnostics appointed a member of her team to join the core project delivery team to assist with commissioning of diagnostic equipment which, I agreed to before consulting the team. My decision was not welcomed by certain team members, and I was advised that it would likely cause disruption and disharmony. I had to advise the Director of Diagnostics that the individual could not join the team and this was agreed.

24. What concerns, if any, were ever raised about management/ managers? If so, please describe these concerns. What action, if any, did you take in relation to these concerns?

A I do not recall any material concerns being specifically raised about management/managers.

Training

25. What formal training or qualifications do you have in of the following:

a) Water

A None. It should be noted that the job description did not require specific Expertise this area.

b) Ventilation

A None. It should be noted that the job description did not require specific expertise in this area.

c) Infection Control

A None. It should be noted that the job description did not require specific expertise in this area.

If so, can you go into more depth about any training and qualifications? – (When trained? When qualified? Who was the awarding body?) Please describe how the training and qualifications were relevant to your work at QEUH.

26. What specific roles or duties have you had in water systems operation or maintenance? How long did you have these roles and duties?

A None. No specific roles due to a dependency on others with specific role/ duties and expertise. This is not unusual for a Project Director or Director of Facilities role.

27. What are the legal responsibilities/ obligations when working with the water systems?

A Compliance with statutory obligations, best practice and guidance.

28. If you did not have any roles or responsibilities in relation to the water systems operation or maintenance:

a) Who did?

A Estates Operations Team

b) What were these responsibilities?

A To ensure compliance with statutory obligations, best practice and guidance

c) What did you understand the responsibilities to be?

A To ensure compliance with statutory obligations, best practice and guidance

d) What are the legal obligations/ responsibilities?

A To ensure compliance with statutory obligations, best practice and guidance

29. What specific roles and duties did you have in the ventilation systems operation or maintenance?:

A None

a) If you did not have any roles and responsibilities in the ventilation systems operation or maintenance, Who did?

A Estates Operations Team

b) What were these responsibilities?

A To ensure estate related infrastructure was maintained in accordance with recognised best practice and guidance.

c) What did you understand the responsibilities to be?

A To ensure compliance with statutory obligations best practice and guidance.

d) What are the legal obligations/ responsibilities?

A To ensure compliance with statutory obligations, best practice and guidance

30. What large scale water systems had you worked on before the QEUH? What large scale ventilation systems had you worked on before the QEUH? If so,

when? How did this compare to working on the QEUH? What was your role and duties?

A It is important to clarify that most of the complex projects I have worked on have been in the capacity as a Project Director or Director of Estates / Facilities Management. All of these projects had an appointed design teams who were selected on their professional experience in designing and overseeing construction of the commissioned building. Also, I had a hierarchy of experienced internal resources and retained consultants to deliver project management services in accordance with approved designs and specifications in accordance with the terms and conditions of contract. As a comparison to the QEUH, I would reference the Princess Noura bint Abdul Rahman University, Kingdom of Saudi Arabia which in terms of scale was significantly larger in scale but equally as complex if not more. Refer to my CV. I acted as the Interim Director of Facilities with a role to lead a large and diverse multinational team to mobilise the establishment of asset management and facilities management services post construction.

Design and Construction and Role in the QEUH/RHC Project

31. The Inquiry understands that you took on the role of Project Direction in June 2013, taking over from Alan Seabourne.

a) Describe the handover process, if any, between you and Alan Seabourne when you took on the role of Project Director.

A. I officially took on the role of Project Director at the end of July 2013. We met periodically to enable Mr Seabourne to brief me on the project. Mr Seabourne encouraged me to spend most of my time with Mr Peter Moir, Deputy Project Director and NEC 3 Project Manager and Mr David Hall, consultant project manager as they had more knowledge regarding the day to day management of the project.

b) Please confirm how the long the handover process was between you and Mr Seabourne, how was the terms of your handover recorded and where would records of these handover discussions and arrangements have been kept. What

information was transferred between and Mr Seabourne during the handover process?

A. The handover process between Mr Seabourne and me took place from when I joined NHS GGC in June 2013 until he retired in July 2013. Mr Seabourne was clear that he remained in charge of the project until the date of his retirement. I cannot recall exactly how the meetings were recorded but, I would expect that I kept my own set of notes. I am unable to recall the precise information transferred between me and Mr Seabourne and am not aware of where the records have been kept by him.

c) What concerns, if any, did Mr Seabourne raise with you regarding the water and ventilation system?

A. I do not recall Mr Seabourne raising any concerns about the water and ventilation systems with me.

d) What information, if any, did Mr Seabourne provide you with regarding the ventilation derogation as provided for in the M&E Clarification log? What advice or information, if any, did Mr Seabourne provide you with regarding the ventilation derogation?

A. I do not recall that Mr Seabourne provided me with information regarding the derogations in the M&E Clarification log. However, I am aware that there is an email which was discussed with the Medical Director when she attended the inquiry written by me to Douglas Ross, Currie & Brown and cc'd to Mr Seabourne asking for information about the derogations. Mr Seabourne responded to my email explaining the rationale for the decision to proceed with the derogations. I can only make reference to the e mail due to the Counsel to the Inquiry making reference to it when questioning the Medical Director and have not had access to a copy of it.

e) What information, if any, did Mr Seabourne provide you with regarding the proposal at the time to accommodate the BMT patients from the Beatson at the QEUH/ RHC campus?

A. I do not recall Mr Seabourne providing me with any information regarding the proposal at the time to accommodate BMT patients.

32. Explain how the output for the design of the Wards was confirmed and signed off. In doing so describe the purpose of the clinical output specification, and your involvement.

A. When I joined the project in June 2013, the design and specification for the wards had already been agreed and signed off by NHS GG&C. I had no involvement in this.

33. Explain the purpose of the guidance relied upon by the design team and why this was important.

A. I joined the project after the design process was finalised.

34. The Inquiry understands that drawings and Room Data Sheets (RDS) were approved through the Reviewable Design Data (RDD) process. Describe your role, if any, in the RDD process and User Groups.

A. I had no role in the RDD process.

a) How were members selected to be part of a user group?

A. I am unaware of how the members were selected.

b) Confirm who attended the user groups meetings from IPC, Estates, Clinical and the GGC Project Team for the following areas: Ward 4B – QEUH; Ward 4C – QEUH; Level 5 – QEUH; Critical Care – QEUH; Ward 2A & 2B – RHC; PICU RHC – RHC; All Isolation rooms

A. I do not know who attended the meetings.

c) How often were user group meetings scheduled to review design proposals and agree the design with the user groups

A. I do not know how often user group meetings were scheduled.

d) How were drawings and the RDS approved to proceed to construction.

A. I do not know how the approval process worked as I was not in post at the time.

e) Describe your involvement in the design and RDD process for the Schiehallion unit, PPVL and BMT rooms and PICU in the RHC

A. I had no involvement in the design and RDD process.

f) Describe your involvement in the design and RDD process for the spaces to house immunocompromised patients, Ward 4C, Ward 4B - BMT Unit, Infectious Diseases and the Critical Care Unit in the QUEH.

A. I had no involvement in the design and RDD process

g) Describe your involvement in the design and RDD process for Isolation rooms.

A. I had no involvement in the design and RDD process.

35. Please describe how the technical requirements (air change rates, pressure differentials and filter requirements) for the rooms were managed and approved, including your role and involvement.

A. I had no involvement in specifying the technical requirements for the rooms as I was not in post at the time.

36. What guidance was considered in the design of wards to accommodate immunosuppressed patients, what processes were in place to ensure guidance compliance? Were there any changes to the design during the design and build, if so, please describe any such changes, describe the impact, if any, on guidance compliance, and described the sign off process for any such changes, your involvement and how any changes were communicated to the Board. Was external advice ever sought in respect of design changes?

A. This question should be addressed to a member of the Project Team with responsibility for developing the specification and related derogations at the pre contract stage.

37. Who was responsible for confirming filtration and HEPA requirements and who approved this from the GGC Project Team?

A. I do not know who in the Project Team approved nor signed off the requirements. NHSGGC will have records of this process.

38. Was the design and/or specification of the ventilation system as recorded in the Building Contract, in particular in the M&E Clarification Log **(please refer to Bundle 16, Document No. 23, Page 166**) compliant with NHS Guidance?

a) If not, please explain:

(i) Why this design was proposed; and

(ii) Why this design as accepted.

(iii) What role, if any, BREEAM played in the acceptance of this design.

A. I was not in post at the time when the M&E clarification log was finalised.

b) If you are of the view that it was compliant, please explain why, with particular reference to SHTM 03-01 2009 (Ventilation Design) **Please refer to Bundle, 16 Document No. 5, Page 342.**

A. Please see response to a) above

39. The Inquiry is aware of the agreed ventilation derogation recorded in the M&E Clarification Log. **Please refer to Bundle 16, Document No. 23, Page 166.**

a) What was the scope of the agreed ventilation derogation recorded in the M&E Clarification Log?

A. The scope of the agreed ventilation derogation is included in the M&E Clarification Log.

b) When did you first become aware of it and how?

A. See answer to Q 31d. Mr Seabourne responded to an e mail from me to a consultant in which he explained the rationale for the derogations. I cannot recall the precise date. The email was mentioned by the Counsel to the Inquiry when the Medical Director was providing oral evidence.

c) Was the agreed ventilation derogation restricted to general wards only?

A. I do not recall if the ventilation derogation was restricted to general wards only. This information should be available from NHS GG&C.

d) If so, how is this interpretation evidenced within the documentation (such as the M&E Clarification Log) and where is the specification located for areas that required specialist ventilation and isolation rooms?

A. Not answered

e) Who else from the GGC project Team and Board were aware of the Ventilation derogation?

A. I think this is a question for members of the Project Team who were in place when the derogation was approved in 2010.

f) What action, if any, did you take to escalate your knowledge the derogation to the Board? If you did not take any action, why not?

A. The derogation had been approved in 2010. I do not recall if I escalated the derogation to the Board when I took up my post in 2013.

g) How was the agreed ventilation derogation signed off by the Board?

A. I am unaware of how the agreed ventilation derogation was signed off by the Board as it was before I joined the project. I would expect that there are records retained by NHS GG&C.

40. When did you first become aware of the ZBP Ventilation Strategy Paper dated on or around 15 December 2009? **Please refer to Bundle 16, Document No.21, Page 1657**

A. The paper was written before I joined the project in 2013. I do not recall being provided with a copy of the report.

a) What action, if any, did you take when you became aware of this document and why? If you did not take any action please explain why not.

A. Please refer to my answer above

b) What concerns if any did you have on reading this document?

A. Please refer to my answer above.

41. What risk assessments (if any), whether in compliance with the standards in HAI Scribe or otherwise, did GGC carry out or have carried out in respect of the change in the ventilation strategy that appears to follow the ZBP Ventilation Strategy Paper dated 15 December 2009? **Please refer to Bundle 16, Document No.21, Page 1657**

A. I am unaware of any risk assessments being carried out. This question would be best asked to a member of the Project Team in place in 2009.

42. In respect of any detonations/ departures from guidance which senior IPC individual was responsible for signing this off?

A. I am unaware of which senior IPC individual was responsible for signing off the derogations/ departures. I would expect that there is a record held by NHS GG&C.

43. Describe your involvement and understanding, if any, of the decision to remove carbon filers? What was the rationale behind this decision, who was involved and what advice, if any, was sought in reaching this decision?

A. I had no involvement and therefore, unable to answer this question.

44. Describe your involvement and understanding/ knowledge, if any, in the removal of the maximum temperature variant? **(please refer to Bundle 17, Document No.26, Page 1063)**. Why was the decision taken and by whom? What risk assessments, if any, were taken prior to making this decision? What was the impact, if any, in removing the maximum temperature variant?

A. I was not involved in a decision to remove the maximum temperature variant and not aware of why this decision was taken nor, who approved it.

45. Describe your involvement and understanding, if any, in the decision to use chilled beams. Why was the decision taken and by whom? What risk assessments, if any, were taken prior to making this decision? What investigation was made into their use in healthcare settings? What was the impact, if any, in using chilled beams?

A. I was not involved in the decision to specify chilled beams. The decision to specify chilled beams was taken before I joined the project and therefore, this question should be referred to a member(s) of the project team who were involved at that

time. After occupancy of the hospital an issue relating to condensation forming on the underside of the beams emerged with resultant mitigations required. The use of chilled beams was recorded in the final M&E Clarification log in 2010.

Horne Taps

46. Describe your involvement, if any, in respect of the decision to use Horne taps.

A. I was not involved in the decision to use Horne taps.

a) What concerns, if any, did you have regarding the use of Horne taps?

A. I am unaware of risk assessments being carried out

b) What risk assessments were carried out in respect of the use of Horne taps?

A. I am unaware of risk assessments being carried out

c) Who was involved in, and who signed off the use of Horne taps?

A. I do not know who signed off the use of the use of Horne taps. I would expect that NHSGGC will have records which confirm the process and approval(s).

d) Did you attend the meeting regarding the use of Horne taps in 2014? If so, why was the decision made to proceed with Horne taps?

A. I have been advised by the inquiry team that the meeting was held on 5th June 2014 and, I was not in attendance. The meeting was chaired by Health Facilities Scotland and the chair of the meeting may be able to confirm why I was not invited to attend and, why the decision was taken to proceed with the Horne taps.

e) Did the use of Horne Taps depend on thermal disinfection? If so why, if not why not? What action, if any, was taken regarding this, and your involvement, if any. Please explain you

A. I am unable to answer this question for the reasons noted above.

Ward 4B and 4C

47. The Inquiry understands that Ward 4B in the QEUH was originally intended to provide accommodation for Renal and Haemato-oncology. The 2009 NHS Clinical Output Specification for the Haemato-oncology ward confirmed "Please note the haemato-oncology ward area has a very specific function and a considerably higher than average requirement for additional engineering support/infrastructure. There should be no opening windows, no chilled beams. Space sealed and ventilated. Positive pressure to rest of the hospital and all highly filtered air >90%, probably best HEPA with adequate number of positive pressure sealed HEPA filtered side rooms for neutropenic patients as in the Beatson West of Scotland Cancer Centre." **Refer to Bundle 16, Document No.15 , Page 1595.** However minutes from the Quality and Performance Committee dated 2 July 2013 **Document A40241860 to be added to Bundle** and the Change Order Request in July 2013 by Jonathan Best **(Bundle 16, Document No.29, Page 1699)** confirm that the Bone Marrow Transplant (BMT) service would transfer to Ward 4B in the QEUH and the haematology patients that were originally planned to accommodate Ward 4B would move to Ward 4C.

a) Please confirm how this change was communicated to the project team and Multiplex and how this change was captured in the design and specification documentation.

A. I cannot recall how this change was communicated to the project team but note that the paperwork commencing at page 1669 is the standard documentation for the change control procedure.

48. The Inquiry understands that 10 rooms were provided for Haemato-oncology patients (Rooms 66 to 75) in Ward 4C, these rooms had no HEPA filtration, 2.5 – 3 ACH per hour, included chilled beams; rooms were at a balanced or slightly positive pressure to the corridor and had suspended ceilings fitted in patient bedrooms and ensuites.

a) Who approved and signed off on this specification for the Haemato-oncology patients to be accommodated in Ward 4C?

A. I do not know who approved this specification. I would expect that the design and specification would have been approved and signed off in accordance with the

RDD process. I would also have expected that the change(s) would have been approved within the project governance structures.

49. Describe the IPC involvement in the design of Ward 4C, who was involved and who signed off the final design and when.

A. I cannot recall who was involved from the IPC but would expect that it was Professor Craig Williams in his capacity as IPC lead.

50. In respect of the BMT Unit the Inquiry has heard evidence from Professor Craig Willaims during the hearings commencing 20 August 2024, that he asked you specifically if you were aware of any problems in respect of the BMT unit and that he was told by you that you were not aware of any such concerns.

a) What documentation did you have sight of in order to enable you to make this statement?

A. I understand that this question is in relation to Professor Craig Williams written statement in response to inquiry question 109. I do not recall making this statement to Professor Williams. However, I note that he makes reference to e mails addressed to myself, Tom Walsh and Grant Archibald. I would request sight of the e mails to enable me to consider a fuller response to this question. Notwithstanding, I also note that Professor Williams confirms that both Grant Archibald and myself recognised the urgency and nature of the problem. In response, I would have taken action to have the defects remedied by Brookfield Multiplex. I think I am correct that Hepa filters were located by Brookfield Multiplex in Ireland and were delivered over a weekend to be installed the following week.

b) How were you satisfied that there were no concerns surround the BMT Unit?

A. As noted above, I do not recall making a statement to Professor Craig Williams that I was satisfied that there were no concerns when it was noted that defects were apparent.

c) With the benefit of hindsight, do you now agree with this statement. Please explain your answer.

A. I would refer you to my answers in a) and b) above.

51. In respect of PPVL rooms please describe your understanding of the detailed design and proposed use of them. Who signed off the design? What IPC involvement was there in the design and sign off process?

A. I am not an expert in the detailed design of Positive Pressure Ventilated Lobby rooms and would rely on professional designers. I am unaware of who signed off the design and unsure of the IPC involvement.

a) Dr Peters raised concerns with Jackie Barmanroy in late 2014. What is your recollection of these concerns? Do you agree with Dr Peters oral evidence that the PPVL rooms didn't look like they were negative pressure? What action, if any, did you take following Dr Peters concerns? Who signed off the PPVL rooms?

A. I have no recollection of concerns being raised by Dr Peters to Jackie Barmanroy. I do not recall who signed off the design and specification of the PPVL rooms.

Ward 2A/ 2B RHC

52. The Inquiry understands that Ward 2A/2B is the paediatric-oncology Unit and includes the Teenage Cancer Trust and the paediatric Bone Marrow Transplant (BMT) Unit - the department is known as the Schiehallion Unit.

a) Confirm your understanding regarding the intended use and purpose of the Ward 2A/ 2B, what guidance was considered in the design of these wards, what processes were in place to ensure guidance compliance?

A. The design process for Ward 2A/B was undertaken and completed prior to me joining the project in 2013. Members of the Project Team who were involved in the process at the time would be best placed to answer this question.

b) What changes, if any, were made to the design during the design and build? Please describe any such changes, describe the impact, if any, on guidance compliance, and described the sign off process for any such changes, your involvement and how any changes were communicated to the Board. Was external advance ever sought in respect of design changes?

A. I am not aware that changes were made during the design and build stage pre-contract and, its impact on guidance compliance. I think that this is a question for the Project Team in place at the time.

c) Describe the IPC involvement in the design of Wards 2A and 2B, who was involved and who signed off the final design and when.

A. I am unaware of the IPC involvement in the design sign off for Wards 2A and 2B and who signed it off and when. I would expect that records are available to confirm.

d) What concerns, if any, did you have regarding the final design specification of Wards 2A and 2B, and what action, if any, did you take in respect of these concerns?

A. I was not involved in the final design specification of Wards 2A and 2B.

Isolation Rooms

53. How was the number and location of isolation rooms agreed? Who approved the final number and locations in the QEUH and RHC?

A. I am unaware of how the number of isolation rooms were agreed and who approved the final number and locations. I would expect that there is a record of the decision-making process and would have included wide consultation.

54. Who was responsible for producing the drawings and the specification for isolation Rooms; who approved these from the GGC Project Team?

A. I am unaware of who was responsible for producing the specification and drawings. I would expect that records will be available.

55. What concerns, if any, did you have regarding isolation rooms and compliance with SHTM/HTM? What action, if any, did you take in respect of any such concerns?

A. I do not recall having concerns regarding the isolation rooms when joining the project nor, was I advised at that time of compliance concerns with SHTM/HTM compliance.

a) The Inquiry has reviewed the RDS in excel format and note there is an entry under 'Design Notes' relating to Ward 2A isolation rooms; the entry states: WARNING NOTICE: This room is based on a theoretical design model; which has not been validated (see paragraph 1.8 of HBN 4 Supplement 1). Specialist advice should be sought on its design. The lamp repeat call from the bedroom is situated over the door outside the room.

(i) Was this note entered on the RDS? If so, why and by whom?

A. I am unaware if this note was added to the Room Data Sheets notes and if so, by whom.

(ii) What specialist advice, if any, was sought relating to the design of these rooms?

A. I am unaware if specialist advice was sought as I was not involved in the design and specification for the isolation rooms. I would expect that a record will be held to help answer this question.

(iii) What was the final agreed design for isolation rooms and who approved this?

A. The final design for the isolation rooms should be held on record via the RDD process. I am unaware of who approved the final design.

b) What ceiling types were specified and approved for use in isolation rooms? Who from the GGC Project Team approved this? Describe your involvement, if any? What was the impact, if any, of the choice of ceiling tiles? What concerns, if any did you have regarding the choice of ceiling tiles?

A. I cannot recall specifically the ceiling types specified and approved for use in the isolation rooms. This would have been recorded and approved in the RDD process and would have been approved by a member of the Project Team.

Handover, Commissioning and Validation

56. Describe the Infection Prevention and Control (IPC) input, if any, in respect of critical ventilation. What was the process for obtaining input, who from IPC was involved. Describe the IPC involvement of signing off on critical ventilation. What was the process, who from IPC signed off on critical ventilation, when, and by whom. Was there an audit trail of IPC involvement and sign off, if so, where would this have been kept?

A. I think that members of the Project Team engaged with the IPC to provide copies of the commissioning data. I do not recall specifically who was involved but expect that it was one or more of the IPC team involved with the project. The audit trail should have been kept on file by the Project Administrator.

57. In respect of commissioning and validation please confirm the following:

a) Describe your role in the lead up to commissioning. What action, if any, did you take to ensure that the wards within RHC and the QEUH met the guidance requirements of SHTM.

A. During the lead up to commissioning, I was reliant on the NEC3 Project Manager, the Project Managers and appropriate consultants to keeping me appraised of progress with the commissioning and validation of the compliance of the works with the approved specification. For clarity, this would include the approved derogations. In the event where concerns were escalated to me I would have sought a resolution from Brookfield Multiplex's Project Director.

b) Describe what commissioning of the water and ventilation system took place prior to handover, and your involvement, if any.

A. The commissioning of the water and ventilation system were the responsibility of Brookfield Multiplex as stated in the contract. The Supervisor (Capita) were responsible for witnessing and validating the commissioning data provided by Brookfield Multiplex on behalf of the Project Team. I had no day-to-day involvement in the commissioning process.

c) Who was responsible for ensuring that commissioning of the water and ventilation system was carried out, and who signed off that it had been carried out? What

concerns, if any, did you have regarding commissioning and validation being carried out prior to handover?

A. Brookfield Multiplex was responsible for ensuring that the commissioning of the water and ventilation system were carried out in accordance with the terms and conditions of contract. Brookfield Multiplex's commissioning team which was led by their M&E Manager were responsible for recording the results of the commissioning. Capita acting on behalf of NHS GG&C were responsible for validating the commissioning result and providing assurances to the Project Team. I do not recall having any specific concerns about the commissioning.

d) Was the energy centre commissioned prior to NHS GGC taking occupation of QEUH? If so, describe what you know about the commissioning of the energy centre. Provide details of the intricacies in relation to its completion

A. The Energy Centre was constructed, commissioned and handed over before I joined the project and, NHS GG&C took occupation of the hospitals.

e) The Inquiry understands that NHS GCC decided to forgo the requirement to have an independent commissioning engineer. Who made this decision? What was the impact, if any, of this decision? In hindsight, do you think that it was the correct decision?

A. I do not recall who made the decision to forgo the requirement to have an independent commissioning engineer but, it will be recorded on the Compensation Event log which was managed by the Project Administrator. I am awaiting information relating to the Compensation Event Log for further clarification. However, it should be noted that Capita who were employed as the Project Supervisor had responsibility for checking and validating commissioning data prepared by Brookfield Multiplex sub-contractors. It should be noted that Brookfield Multiplex had their own M&E Manager who was responsible for assuring the commissioning processes and related data. On reflection, I think that the Board should have retained an independent commissioning engineer. However, it is noted in Bundle 26 PP13 at 6.8.1 that it was envisaged that the contractor would appoint an independent commissioning engineer.

f) The Inquiry understand that no validation was carried out in respect of the ventilation system. When did you become aware of this? How did handover come to be accepted without the ventilation system being validated? Who was responsible for this and who signed off on this?

A. I do not recall being made aware that validation was required to be carried out over and above the building contract commissioning and validation process. Had I been made aware then, I would have intervened accordingly. If validation was the responsibility of NHS GG&C then, I would expect that the responsibility for arranging the validation process would have fallen to the estates operations team to ensure independence from the contactor and Project Team. The responsibility for accepting the hospitals in accordance with the terms and conditions of contract sat with the NEC3 Project Manager. Had validation been carried out on the ventilation system, it would have confirmed that it was not in accordance with the air changes noted in the guidance. However, attention is drawn to the derogations approved by NHS GG&C. I would expect that when making the decision to approve the derogations, the departure from the guidance notes was known, assessed and accepted.

g) Professor Craig Williams has given evidence to the Inquiry during the hearings commencing 20 August 2024 that the Project Team provided him with assurances that validation was carried out and had been done appropriately. How were the Project Team able to make these assurances given that validation had not be carried out in respect of the ventilation system?

A. I do not recall the Project Team providing assurances to Professor Craig Willams that validation has been carried out.

58. Describe your role in the lead up to accepting handover.

a) At the point of handover, how satisfied were you that all areas of QEUH/RHC accepted by NHS GGC, were designed to the intended specification and suitable for the intended patient cohort, meeting all the relevant guidance requirements?

A. At the point of handover, I was not made aware of any accepted areas not being in accordance with the agreed contractual specifications and designs including, the approved derogations.

b) How were you assured that the wards met the requirements of the specific patient cohorts?

A. I would have met the Deputy Project Director and NEC Project Manager, Project Managers, consultants to discuss progress with the handover process and to discuss any areas of concern regarding compliance with the approved specification and derogations.

c) Were any wards not handed over, or only partially handed over, please confirm. If so, why they were they held back? Was there any financial consequence to both Multiplex and NHS GGC of the ward(s) being held back? What works were carried out in order to allow this ward(s) to be handed over to the NHS GGC?

A. I do not recall if any wards were not handed over nor, do I recall the financial consequences to either Multiplex of NHS GG&C if this was the case. I would expect that the terms and conditions of contract were applied by the commercial lead.

d) Describe the process for approving the defects listed on the stage 3 sectional completion certificate [**Please refer to Bundle 12, Document No. 3, page 23**] Who saw the stage 3 sectional completion certificate before it was signed? Why was the stage 3 sectional completion certificate signed when there were a number of outstanding defects listed?

A. I would expect that the Supervisor and Project Manager would have met with other member of the Project Team such as the project managers to review the list of defects and either approve the list and add to them if required. I am not aware of who saw the certificate. I think there is provision on the NEC3 form of contract for sectional completion.

e) Do you think that the stage 3 sectional completion certificate accurately listed all of the defects with the QEUH/RHC? If not, please describe the inaccuracies

A. I would expect that the stage 3 sectional completion certificate was accurate and listed defects known and approved by the Supervisor and NEC 3 Project Manager.

59. Who oversaw contractual compliance? Who was responsible for ensuring that the paperwork was produced to confirm contractual compliance? What action, if any, did you take to ensure that paperwork was in place to ensure contractual compliance? Was validation of the ventilation system a contractual requirement? If so, who signed off on contractual compliance given the lack of validation?

A. The NEC 3 Project Manager would have overall responsibility for contractual compliance in accordance with the terms and conditions of the contract. However, it should be noted that the NEC 3 Project Manager would have relied on the inputs of others to support the implementation of his duties. For example, external consultants and other members of the Project Team.

60. Explain what the building contract says about a retention period in which some money would be held back pending completion of the QEUH/RHC. In doing so, please explain if the retention period was enforced?

A. I do not have access to the building contract and therefore an unable to comment of the precise wording of the contractual clause. I cannot recall if the retention period was enforced and would direct you to Currie and Brown UK Ltd who acted as the commercial lead on the project. Alternatively, the Project Administrator who managed the records system for the project.

61. Who was responsible for providing asset tagging. Why was there no asset tagging, who decided to proceed without it?

A. The responsibility to provide asset tagging was with Multiplex. I think and, this would have to be checked, that a certain amount of asset tagging did take place to the major M&E installations but, there was an issue with the supply of the asset tags. I don't recall if a decision was taken not to proceed with asset tagging but, if there was, it may have been covered by a Compensation Event.

DMA Canyon

62. At handover, had a preoccupation L8 risk assessment been carried out? Who was responsible for ensuring that this was in place prior to patient migration? were you aware of a preoccupation L8 assessment having been carried out? Who

instructed it? When did you become aware? Why did you not raise it as a concern that you had no seen this prior to patient migration, was this not within the remit of your role?

A. I do not recall if an L8 risk assessment had been carried out at handover. The responsibility for the L8 risk assessment would have been with the estates operations team. This was not in the remit of my role as Project Director, the responsibility would lie with estates operations.

63. The Inquiry has heard evidence during the hearing commencing 20 August 2024 regarding the DMA Canyon 2015 report. **Please see Bundle 6, document 29.** The Inquiry has heard evidence and received written evidence from Ian Powrie that you were aware that the 2015 DMA Canyon report had been ordered by him. What action, if any, did you take to follow up on the ordering of this report?

A. I disagree that Mr Powrie made me aware that he had commissioned a report.

a) When, if at all, did you ask to see the report?

A. Mr Powrie did not provide me with a copy of the report.

b) Were you aware of an action plan having been made in respect of the report, if so, but whom?

A. I do not recall being made aware of an action plan.

c) What actions were you aware of having been taken in response to the report? If actions were taken, by whom and when? Were you aware of the findings of the 2015 being escalated, if so when and to whom?

A. I understand that from evidence provided by Mr Powrie to the Inquiry that no action was taken and that he had not read the report. I read this in the media. I am not aware of the report being escalated.

d) The Inquiry understands from the evidence of Tom Steele that the report became widely known in around 2018. Why was the presence of the report not known prior to then?

A. I am unaware of why the report became widely known in around 2018.

e) The 2015 report made several recommendations, what impact, if any, did the lack of action in respect of the 2015 report have on the water system at QEUH/RHC?

A. I am unaware of the impact if any regarding the lack of action in respect of the 2015 report.

Miscellaneous

64. In her written statement Dr Christine Peters states that she asked for 'asked for risk assessments for waterborne infection in the QEUH and they were not forthcoming from the Project Management Team, Estates, or Mary Anne Kane.' Do you recall being asked for this information? Did you provide the information requested? If so when and by what means? If not, why not?

A. I do not recall being asked for risk assessments by Dr Christine Peters. She may have asked others within the Estates Operations team for copies of risk assessments.

65. In her statement Dr Teresa Inkster states 'there was a direction from Mary Anne Kane, who was at senior director level, not to give microbiologists access to water testing results':

a) What is your reaction to this statement?

A. I do not recall this situation.

b) Do you recall either making such a direction, or a direction of such coming from another member of staff? If so, whom and when?

A. I do not recall this situation.

66. The Inquiry understands that issues with ward 4B, BMT Unit first arose in July 2015. When did you first become aware of issues with the specification of Ward 4B? What was your understanding of the issues with Ward 4B, What action, if any, did you take in respect of such concerns and what was the outcome?

A. I do not recall when I was made aware of issues being raised regarding the BMT specification. I do not remember what these issues were. I do not remember what, if any, action I took in this regard.

67. The Inquiry understands that NHS GG&C commissioned Currie and Brown to carry out a feasibility study in November 2016, to investigate a new location for the (BMT) Unit within the Queen Elizabeth University Hospital (QEUH) Glasgow campus **Refer to Bundle 23, Document No.25, Page 231.** Why was a feasibility study investigating alternative locations required? Who was this report prepared for? Who was this report shared with? What was your involvement and what concerns, if any, did you have regarding the BMT unit? What action, if any, did you take in respect of such concerns and what was the outcome

A. As the report states, it was commissioned on behalf of the Project Board and to ascertain if alternative locations to the adults hospital were feasible. I cannot recall exactly who the report was prepared for but, I would expect that it was shared with senior managers including the Medical Director and Chief Executive as part of the decision making process for the relocation of BMT from the Gartnavel General site. I think that there was a strong preference from the BMT clinicians to be located in the adults hospital due to the close proximity of other clinical facilities.

68. The Inquiry understands that you drafted a report, dated 25th February 2016 regarding the Design, Construction and Commissioning for Ward 4B, Preparation rooms within Theatre Suites and the Schiehallion Ward Ventilation **Refer to Bundle 23, Document No.77 , Page 768.** Why was this report commissioned? Who was this report prepared for? Who was this report shared with? What concerns did you have regarding the areas mentioned in the report? What action, if any, did you take in respect of such concerns and what was the outcome?

A. On reading the draft report dated 25th February 2016, the content would suggest that the environmental performance of the spaces referred to were disputed by the ICT as being non-compliant. Therefore, I would state that the report is attempting to bring clarity to the concerns expressed by the ICT team. I think the report was commissioned because there was a difference of opinion regarding specification within the ICT team. I believe that the report would have been a reasonable record of the issues to be clarified. I cannot recall who the report was prepared for but I would expect that it was shared with the Chief Executive, Deputy Medical Director, Medical Director, ICT lead, Deputy Project Director and the Sector Estates Manager. I do not recall my concerns at the time but, it is clear from the report that

I instigated a range of actions which included seeking input from the construction consultants, Brookfield Multiplex and NHS staff to seek a resolution.

69. The Inquiry understands that issues regarding the BMT isolation Rooms in Ward 2A RHC first arose in July 2015. When did you first become aware of issues with the Isolation Rooms in Ward 2A? What action, if any, did you take in respect of such concerns and what was the outcome?

A. I do not recall when I was made aware of any issues regarding the BMT isolation issues in Ward 2A in July 2015 and would need a greater context to this question.

70. The Inquiry is aware that the ventilation system in Ward 2A RHC was completely replaced resulting in the ward closing for over 3 years. When did you first become aware of issues with the ventilation system in Ward 2A? What action, if any, did you take in respect of such concerns and what was the outcome?

A. I understand that a decision was taken by the Board to replace the ventilation system in late 2018 I left NHS GGC in January 2018. I do not recall when I was first made aware of issues regarding the ventilation in Ward 2A.

71. The Inquiry understands that no negative pressure isolation rooms were provided at handover for infectious disease patients. Please explain why no negative pressure isolation rooms were provided for and what action, if any, did you take in respect of such concerns and what was the outcome?

A. I do not recall why no negative pressure isolation rooms were provided at handover. The exclusion of the rooms would have been recorded in accordance with the building contract.

72. The Inquiry understands from the evidence of Ian Powrie given in respect of the hearings commencing 20 August 2024 that you had thought that Multiplex would maintain the hospital for the 2 year warranty period. Please confirm if you made this statement, and if so, what was your rationale for doing so, confirming who advised that Multiplex would maintain the hospital for the 2 year warranty period?

A. I do not recall having a conversation with Ian Powrie and making this statement. My recollection is that the defects liability period was for a period of 2 years post completion but Multiplex was not responsible for the full maintenance of the

hospital. I recollect that Multiplex was required to provide an M&E manager to provide support to the Estates Operations team. The building contract should be able to provide clarity regarding the contractual obligations.

This is the version of Mr Loudon's draft statement and response to Inquiry questions uploaded to his Connect Workspace on his behalf by CLO on 17 January 2025, then formatted to the Inquiry standard by our Witness Engagement and Support Team. Mr Loudon currently is unwilling to endorse this version as his statement. He remains medically unfit to give evidence.

David Wilson Loudon, MCIOB, MBA

KEY SKILLS AND COMPETENCIES:

- Strategic and Operational management of complex and diverse estate portfolios
- Oversight of major capital projects from Inception to Completion
- Strong commercial acumen
- Track record of successfully managing multiple and diverse stakeholders
- Team builder and player
- Customer focussed
- Experienced leader of change management processes
- Creative and innovative problem solver
- Member of strategic and operational committees
- Experienced member of external management boards

February 2018 – June 2024: Director of Estates and Facilities Durham University

Reporting directly to the Vice Chancellor and an executive member of the Senior Leadership Team, I was responsible for delivering strategic and operational services by highly performing teams in Estates Infrastructure and Projects, Estates Operations, Accommodation and Commercial Services and Health & Safety Services and external consultants.

Examples of Key Achievements:

- Contributor to the Durham University Strategy Refresh 2017-2027
- Estates Master Plan Refresh relating to [redacted] capital investment plan
- Organisational restructure of the Directorate
- Delivery of a significantly improved pan-university health & safety service, embedding a just health & safety culture based on a learning community approach. Oversaw improved score retention of health and safety independent accreditation
- Delivery of a new Teaching & Learning Building [redacted]
- Delivery of a new Sports and Wellbeing Centre [redacted]
- Design and procurement for a new Business School [redacted] and a new College [redacted] off balance sheet)
- Delivery of a new Maths and Computer Science building [redacted]. Regional and National RIBA Award winner
- Design and procurement of an office hub [redacted] for professional services staff in 2025
- Disposal of non-core property assets resulting in capital receipts
- A major review of project governance and the introduction of independent gateway reviews
- Significant improvements in town and gown relationship with a focussed outreach programme
- Introduction of improved corporate business resilience processes

- Improved business relationships with the academic and student communities
- Award winning initiatives such Northumbria in Bloom
- Improved environmental rankings for People and Planet and also, international Sustainability Development Goals
- Production of a new Environmental Sustainability Strategy and related Ambition Statement including route to Net Zero by 2035 for Scope 1 & 2 emissions
- Commissioning of a pan University Decarbonisation Plan
- Introduction and implementation of the first Social Values Policy

January 2016 – February 2018: Director of Facilities and Capital Planning and Director of Property, Procurement & Facilities Management

NHS Greater Glasgow & Clyde
Directly reporting to the Chief Executive, I led a directorate comprising circa 5,000 personnel with an annual revenue budget of [redacted].

Examples of Key Achievements:

- Delivery of the world class Institute of Clinical Excellence (ICE) Building [redacted] in partnership with the University of Glasgow
- Delivery of the Board's annual capital plan [redacted] comprising acute services related projects
- Delivery of the Board's health & social care projects (circa [redacted]) via HUB procurement process
- Delivery of Phase 3A of the Queen Elizabeth University Hospital Campus project (circa [redacted])
- Delivery of a new Board wide Procurement Strategy in compliance with Scottish Government policy guidelines
- Delivery of a new Board wide Transport Strategy
- Restructuring of Facilities Management and Capital Planning teams
- Master planning for the disposal key sites
- Disposal of key hospital sites
- Negotiation of a facilities management contract with the University of Glasgow where the Board would act as an FM service provider and forecast to generate annual income

1 June 2013 – January 2016: Project Director NHS Greater Glasgow & Clyde

Key Achievements:

- Project Director for the £842Mn development of the Queen Elizabeth University Hospital Campus, Glasgow and included:
- Adult's Hospital of 1,120 beds
- Children's Hospital of 256 beds
- Equipping of the new hospitals (£90m)

- Teaching and Learning Building in partnership with the University of Glasgow
- New Office Accommodation Block
- 2 multi story car parks and public realm
- Migration planning and management for 10,000 clinical and non-clinical staff
- Outsourced retail provision on a profit share commercial structure

1 April 2006 – June 2013: Divisional Director Currie & Brown UK Ltd

Examples of Key Achievements:

- **Princess Noura bint Abdul Rahman University, Kingdom of Saudi Arabia** Interim Director of Facilities Management with responsibility for establishing a new FM department for a mixed-use education and health care campus with a GIFA exceeding 3.5 million square metres. Capital cost circa £10bn with annual operational budget of circa £1bn

- ## University of Ulster, Belfast

  Consultant Project Director for City Centre Campus Development. Capital Value of £250M

- ## New York University Abu Dhabi

  Appointed as Commercial Advisor for NYU new campus in Abu Dhabi. Capital value of £700m. Role also included preparation of an FM Strategy and Operational Plan.

- ## University of Edinburgh

  Led a team commissioned by the University to review its capital projects procedure and improve its related governance procedures.

- ## University of West of Scotland

  Appointed to assist UWS to introduce new ways of working and to outsource core estates services

- ## Middle East: Asset / Facilities Management Strategy

  Development of asset / facilities management strategy for the development of two new cities in Dubai and Abu Dhabi. Combined capital value of the projects was circa £6.5bn.

- ## Glasgow Housing Association Ltd

  Seconded to GHA for a period of 12 months to join the senior management team to prepare an asset management strategy, lead a change management programme to decentralise services, oversee a major ICT project, lead on a new repairs procurement strategy and provide support to procure regeneration projects more effectively.

- ## Speaker at Education Conferences

  Guest speaker at the “Designing Colleges and University’s of the Future” 2009 conference in London. Invited to present at “Improving Scotland’s Public Sector Estate” 2009 conference on “Transformational Services in Asset Management” in Edinburgh.

Key Responsibilities:

- Head of Global Education including schools, colleges and universities. Role was to maintain market awareness of key sector drivers and ensure that business was positioned to respond accordingly
- Advisor to UK education team on government policy
- Business Development in the education sector pan-UK and Northern Ireland
- Production of the UK education strategy and annual review
- Profit and Loss accountability for various commissions

1 July 2004 – 30 November 2005: Vice Principal – Corporate Development James Watt College of Further and Higher Education

Key Achievements:

- Restructured and commercialised the College’s catering services through a market testing
  exercise
- Project Sponsor on a complex Private Finance Initiative capital project and other capital projects
- College representative on a significant urban regeneration project in the Inverclyde area and secured external funding for master planning. Worked with the Scottish Funding Council to secure grant aid for an innovative feasibility study involving multiple public and private stakeholders aimed at enhancing social inclusion and widening access to learning
- Introduced succession and business continuity planning to key Units
- Improved internal communications within the Unit by setting up a Communications Task Group
- Established the Facilities Management Customer Relations Group
- Secured increased investment in ICT provision
- Introduced improved budget planning processes for Financial Year 2005/06
- Formed the Environmental/Sustainability Committee

Key Responsibilities:

- Provided leadership and management direction as a senior member of the Executive Management Group and Senior Management Team reporting directly to the Principal

- Contributed to the effective running of the College by maintaining a strategic and operational overview of key non-academic service Units including; Estates, Facilities Management, Health and Safety, Management Information Systems, Student Support Services, Information and Communication Technology, Student Residencies, Catering and Library Services
- Maintained and strengthened links with the Scottish Funding Council and other relevant stakeholders
- Overview of Capital and Revenue Projects
- Worked with Directors of Units to set business objectives and performance targets using financial data and Key Performance Indicators. Monitored and evaluated performance throughout the academic year
- Strengthened and maintained relationships with external stakeholders such as the Local Authority, Scottish Enterprise network, local businesses and community organisations
- Developed the Master Plan in consultation with senior colleagues and other internal and external stakeholders including the Local Authority and the Enterprise Company
- Risk Management and Business Continuity/Disaster Recovery Plans

1 July 1998 – 30 June 2004: Director of Estates University of St Andrews

Key Achievements:

- Publication of Estates Strategy following extensive consultation with internal and external stakeholders
- Obtained approval for the Institutions first Estate Master Plan that included formal consultation with the Local Authority and Scottish Enterprise
- Oversaw the introduction of the Institutions first Environment Strategy that included a Transport Plan and setting of environmental targets
- Member of St Andrews World Class Project Executive and Chairman of the "Wireless Town Initiative"
- Commissioned a comprehensive Value for Money Report into Estates Department and led the Change Management Programme including extensive staff consultation. Service Level Agreements were introduced with an objective to deliver best practice. A comprehensive review of supply chain management was completed in April 2004
- Renegotiated leases in 2002 resulting an increased profit margin of 25%
- Delivery of the largest capital development programme since the 1970's
- Acquisition and Development of the Gateway Centre which was converted to a Business School with significant investment in ICT installations

Key Responsibilities

- Management of department with an annual operational budget of £6M and 200 multidisciplinary staff. Annual capital budget exceeded £50M. Had responsibility for both the academic and residential estate
- Preparation and implementation of the Estates Strategy and emergent policies

- Provision of strategic estates and related infrastructure advice to Principal's Office and the
  University Court Members
- Maintaining links with the Scottish Higher Education Funding Council
- Preparation of Estates Master Plan (2025 Vision) in consultation with senior colleagues and other internal and external stakeholders including the Local Authority and the Enterprise Company
- Risk management and production of Business Continuity Plans
- Preparation of Annual Operational Plans
- Accountable for the management of Health and Safety for the built environment
- Ensuring that the Institution complied with relevant statutory regulations
- Regular consultation with external stakeholders such as the Local Authority, Scottish Enterprise Historic Scotland and local community groups

SCOTTISH HOSPITALS INQUIRY

Bundle of documents for Oral hearings commencing from 16 September 2025 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Witness Statements – Volume 4

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