Scottish Hospitals Inquiry
Witness Statement of
Sarah Jane Sutherland

Introduction

1. My name is Sarah Jane Sutherland.

2. I have been asked to provide a statement detailing my involvement with the Royal Hospital for Children and Young People and Department of Neurosciences ("RHCYP / DCN") Project ("the Project"). This statement has been produced in response to written questions provided by the Inquiry.

Background

3. I qualified as a Nurse in 2003 with a Diploma in Higher Education in Adult Nursing and a BSC Adult Nursing degree from Napier University, Edinburgh. I also have a Diploma in Infection Prevention and Control which was awarded in 2018 from the University of Highlands and Islands. I am registered with the Nursing and Midwifery Council ("NMC").

4. On qualifying I worked with NHS Forth Valley as a Theatre Scrub Nurse between 2003-2004 (5 months) then moved to NHS Lothian as Staff Nurse in Orthopaedics from 2004-2012 (8 years). I then moved to Edinburgh University as a Research Nurse between 2012-2014 (2 years) returning to NHS Lothian in 2014 as an Infection Prevention & Control nurse. In December 2018, I changed roles within NHS Lothian and became HAI Scribe Lead Advisor until June 2022. My current role within NHS Lothian is a Geographical Lead Infection Prevention & Control Nurse.

Role in RHCYP/DCN

5. I was involved with the RHCYP/DCN Project as part of my newly promoted role as Healthcare Associated Infection Systems for Controlling Risk in the Built Environment ("HAI Scribe") Lead Adviser between January 2019 until the end May 2019. This was primarily an induction period and fully supported role with no sole decision-making responsibilities. My involvement was limited to shadowing/supporting Lead Infection Prevention Control Nurse (LICN) Lindsay Guthrie and Lead Infection Control Doctor (LICD) Dr Donald Inverarity.

6. Prior to working on the Project, I had experience around reactive and planned small scale local refurbishment building works. Post my experience on the Project, I have been involved in a range of capital planning refurbishments and a new build project, however, my involvement was interrupted by the Covid pandemic because of increased clinical demand on my time.

7. My roles and responsibilities during the period I was involved in the Project were mainly to attend project meetings and to provide infection prevention and control ("IPC") advice in relation to: the built environment for the current stage of the Project (which was nearing end of construction); procurement of equipment etc; room reviews; and participation in HAI Scribe. Also during this time I was involved in providing IPC advice for other capital and estates projects in conjunction with other senior colleagues in NHS Lothian. During the Covid Pandemic, I also provided infection prevention and control team ("IPCT") support in a clinical capacity.

8. IPC specialists provide an advisory role to the project team, who will consult with the IPC specialist as and when required. The extent and nature of IPC involvement depends on the particular project and project team. The stage at which IPC specialists get involved in projects varies depending on the size and scale of a project. IPC specialists might get involved during the design stage and the construction and commissioning stage however IPC specialists would not usually be involved during the procurement of contractors. The advice given by IPC specialists would relate to any potential risk to patients.

From my own experience it is not the role of IPC to check compliance of building systems (such as ventilation systems) with Guidance (such as SHTMs); rather, the IPC role is to advise on any clinical risk of any aspect of design whether compliant or not.

9. The role of the Lead HAI-Scribe Adviser is a dedicated Infection Prevention Control Nurse ("IPCN") to provide Infection Control advice for built environment projects. However, there is no formal training available for IPCNs and Lead HAI Scribe Advisers and learning is based on an interest in this particular field and on the ground experience. Core IPC training or formal academic training to become an IPC nurse and/or a HAI-Scribe adviser (whether on the job or otherwise) does not cover the IPC implications of engineering systems, such as ventilation and water. Training does not cover such things such as the performance parameters required by NHS guidance (such as pressure and air change parameters) or cover familiarity with guidance such as SHTMs. This would all be on the job experiential learning.

General IPC Involvement in RHCYP/DCN project

10. My role in the Project was minimal and always followed up with emails under the supervision of Lindsay Guthrie. I was involved in HAI Scribe training for Bouygues, the hard FM provider, and Multiplex, the contractor, which consisted of an overview of the HAI Scribe document for reactive planned maintenance. My recollection is that the sessions were approximately 1.5 - 2 hours and were delivered by myself and IPCN Emma Collett on one occasion and IPCN Kirsten Imlach on the other. They focused around discussion of Stage 3 Scribe within SHFN 30 Part B **(A33662208 - 416 SHFN 30 Part B v3 Oct 2014, October 2014 – Bundle 13, Vol 3, Page 464)** including the importance of risk rating and identifying the correct type of work to ensure the appropriate class of precaution was put in place when carrying out any construction/refurbishment activities, particularly when the building was occupied. The first session was requested by Janice MacKenzie, the Project Clinical Director, and the second via Brian Currie, Project Director.

My recollection is that these were to highlight the importance of HAI Scribe, completion of the document/question set and to ensure that contractors and hard FM providers were clear on what was required from an HAI Scribe perspective going forward. If I recall correctly there was representation from Multiplex, Bouygues and IHSL alongside Janice MacKenzie at the training sessions. There may have been other project team members at the sessions however I cannot recall who exactly who those were.

11. The forums that were available to me to raise IPC issues in person were: commissioning meetings for the Project; IPC Business Meetings; and 1:1 meetings with Lindsay Guthrie. Out with these forums, email was used as the main form of communication. I had limited opportunity to engage with these forums due to my involvement towards the later phases of the Project.

General IPC involvement during commissioning and construction phases of the Project

12. The expected IPC involvement would be as per expectations laid out in SHFN 30 **(A33662182 – Scottish Health Facilities Note 30 Part 1 – Infection Control in the Built Environment – Design and Planning – Bundle 13, Vol 3, Page 553)**. Any risks/concerns were escalated to Lindsay Guthrie and Donald Inverarity who further raised through the appropriate forums and Project team. I don't recall any risks identified individually to myself.

13. My understanding is that SHFN 30 is an Health Facilities Scotland ("HFS") (now Antimicrobial Resistance & Healthcare Associated Infection Scotland ("ARHAI")) document mandated by Scottish Government to be implemented by NHS Boards for built environment project/works to help reduce potential infections from the hospital environment, including during design, construction, refurbishment, and maintenance activities. Parts A & B include built environment information around IPC for project management and stakeholders involved in the project and pro forma question sets to assess risk during the stages of a project lifespan.

The pro forma question sets, and project planning/design development should aid team members/stakeholders to identify any infection risks which require to be addressed/mitigated/minimised. The project owner/sponsor and project manager are responsible for ensuring HAI Scribe is implemented and followed.

14. I have been asked for my views on the likelihood of non-compliance with SHTM 03-01 being detected at the design stage HAI Scribe. I was not involved with the design stage of the Project. However, generally, the IPC role at design stage in respect of ventilation is not to check the engineering design but to provide advice on any questions/issues around specific room parameters. If, at any stage of the Project, IPC were advised that the designed systems were compliant, we would expect that this is because design engineering experts have deemed it to be.

Independent validation of ventilation systems

15. In relation to the ventilation system commissioning and validation reports, paragraph 8.64 of SHTM 03-01 states that: *"Following commissioning and/or validation a full report detailing the findings should be produced. The system will only be acceptable to the client if at the time of validation it is considered fit for purpose and will only require routine maintenance in order to remain so for its projected life."* In my view, this paragraph requires an independent validation report to be provided to the project team in the terms required. It may not be explicit that the report requires to be an independent report however in my opinion this is implied on the basis that it is a report to be provided to the client who will then deem whether the ventilation system is acceptable or not based on the (presumably independent) report.

16. In relation to the validation of Ultra Clean Ventilation ("UCV") operating suites, paragraph 8.67 states: *"In order to ensure that the complete system operates correctly it will be necessary to validate the system as a whole from the air intake through to the extract discharge. It is unlikely that "in house" staff will possess the knowledge or equipment necessary to undertake this process. Validation of Ultra-Clean operating theatre ventilation systems should therefore be carried out by a suitably qualified independent Authorised Person appointed by the client."*

Validation reports for UCV operating suites should have a clear statement indicating that the ventilation system achieved or did not achieve the required standard.

17. Arranging validation and ensuring this report is made available to IPC sits with the project team managing the project and not IPCT. I'm not aware that this is explicitly written anywhere but the Project Manager is responsible for Development Stages 2-4 including completion of HAI Scribe and such information would be required in order to sign off Stage 4, so I would have thought arranging validation would be part of this person's responsibility.

18. Where critical ventilation has been installed, independent validation should be undertaken before patient occupation. Critical Ventilation is defined in SHTM 03-01 part B at paragraph 4.7 and includes critical care, intensive treatment, or high-dependency unit, among others. SHTM 03-01 part A also sets out at section 7 the departments that require a degree of specialised ventilation, and that included critical care and high dependency units and, separately, isolation facilities.

19. I have been asked for comment on paragraph 4.8 of SHTM 03-01 part B, which provides that the loss of service from a critical ventilation system would seriously degrade the ability of the premises to deliver optimal healthcare, and paragraph 4.29, which provides that critical ventilation systems which are unable to achieve the specified standard are taken out of service. These are broad statements and therefore I am unable to comment on whether this would be true in all circumstances. It would be dependent on what the level of loss of service was and would require multi-disciplinary discussion including that of the engineering designers and experts.

20. I have been asked to review an email to Ronnie Henderson and Jackie Sansbury on 11 January 2019 **(A40988937 – Email from Ronnie Henderson to Donald Inverarity et al advising MPX will have carried out all tests and validations required in the SHTM by handover – 11 January 2019, Bundle 4, Page 6)**. I was not involved in the Project prior to January 2019 therefore not aware of the background to this email and to any previous discussions on this matter.

I responded to the question raised in the email only. I was not aware of any concerns at this stage. I did not have any concerns around validation as I had limited knowledge around what was required as I was newly appointed in the role. In relation to when independent validation was required to be arranged, the responsibility sits with project management team to identify when it needs to be arranged. I did not raise the issue of independent validation; I directed the Project team to the appropriate guidance as per this email. The risks of independent validation in terms of SHTM 03-01 not taking place timeously is that it could result in potential delay in the project process.

21. I have been asked to review an email from Brian Currie on 14 March 2019 (**A34010959 – Email from Lindsay Guthrie to Annette Rankin regarding a Sunday Herald Article on ventilation issues at QEUH and RHCYP 5 August 2019 – Bundle 5 - Page 27**). I am not copied into that email chain. However, within the email reference is made to a site visit on Monday 28 January 2019 which was attended by me and IPCN Emma Collett. I have also reviewed an email chain between me and the Project Clinical Director, Janice MacKenzie, and others in the project team, dated 24 and 25 January 2019 arranging the site visit for 28 January 2019 **(A46427526 – RE: Room Reviews RHSCDCN, 25 January 2019, Bundle 13, Vol. 3, Page 460**). This email chain notes that hospital handover would be very soon and so they had been busy doing the room reviews. I wanted to ensure that there were not any unidentified issued from an IPC perspective prior to handover and so we arranged for me to attend on 28 January 2019. I had requested to accompany the Project team to undertake room reviews including rooms previously reviewed by my predecessor given the time passed between the previous reviews and planned opening.

22. During the visit, we visited the DCN & the Lochranza in-patient ward areas and two outpatient departments in RHYCP. I self-directed what I wanted to look at from an IPC perspective with the focus on the material finish of the build (floors, surface finish, placement of gel holders etc). There were a small number of concerns raised relating to the placement of personal protective equipment (“PPE”) holders, lack of adequate amount of alcohol gel dispensers and suitability of furniture surfaces for cleaning.

An agreement was made in relation to locations for PPE holders and SOP (Standard Operating Procedure) for management going forward. The project team were advised that clinical staff would require to have an SOP in place, which they would write to ensure that PPE holders were emptied and cleaned accordingly following discharge of a patient with a known or suspected infection. This is related to IPC but not owned by IPC. The compatibility of equipment surfaces for cleaning were confirmed.

23. HAI-scribe Stage 4 was not discussed during or around the time of my site visit on 28 January 2019. I was not aware at this time when the HAI-Scribe process would need to be completed by, nor exactly when handover and occupation of the hospital would take place. I would have expected the Project Team to suggest dates for the Stage 4 HAI-Scribe as they are responsible for arranging and directing the process. IPCT are only one of the stakeholders. Other stakeholders are set out at SHFN 30 part B (section 2, pages 15 – 23) **(A33662208 – 416 SHFN 30 Part B v3 Oct 2014 – Bundle 13, Vol. 3, Page 464)**. At this point in the Project, the exact handover date was unknown, therefore it is difficult to say if there was lack of IPCT involvement.

24. A walkaround took place at the new site on 20 March 2019 (as referred to in an email from Ronnie Henderson of 21 March 2019) **(A40988839 – IPC site visit 20/03/2019 – Bundle 13, Vol 3, Page 681)**. I believe the purpose of this site visit was that it was part of the HAI Scribe Stage 4 process. I attended the site visit along with Donald Inverarity, Alex McMahon, Janice MacKenzie, Ronnie Henderson, and David Gordon (Bouygues). We were shown an isolation room, theatre suite, plantroom and external areas and were told general information about the new premises and points noted in Ronnie Henderson's email summary. I wasn't aware of any concerns during the visit. The outcome of the visit is as summarised by Ronnie Henderson in his 21 March 2019 email **(A40988839 – IPC site visit 20/03/2019 – Bundle 13, Vol 3, Page 681).**

25. At the meeting, Donald Inverarity and myself raised concerns that the Stage 4 HAI-Scribe had not yet been carried out. If the HAI-Scribe was not completed prior to patient occupation there could potentially be (i) a delay in the Project if there were concerns/issues/risks identified that required remedial work and (ii) a lack of assurance that the building was safe for patient occupation from an IPC perspective. IPC along with all stakeholders involved in the Project are required to be consulted as part of completing the HAI Scribe. After the March walkaround it was agreed I would arrange dates with the project team to carry out Stage 4 HAI Scribe Reviews. These took place on 26th April (in patient wards including haemato-oncology in Lochranza and PICU Paediatric critical care), 2nd May (outpatients) and 17th May (theatres and imaging) and were attended by those named in the HAI Scribe document (Lindsay Guthrie, Ronnie Henderson, Fiona Cowan, Dorothy Hanley, and Janice MacKenzie) as discussed in more detail below.

26. In relation to ventilation, as set out in his email **(A40988839 – IPC site visit 20/03/2019 – Bundle 5 – Page 44)** Ronnie Henderson explained that the commissioning and validation had taken place for both isolation rooms and theatres and that records were available on the project data storage system. He also explained that there were significant ongoing construction works post-handover; and that both isolation and theatre validation would be re done once the ongoing construction works were completed. Until this meeting on 21 March 2019 there were no reasons given by the Project Team as to why the Stage 4 HAI Scribe was not completed prior to Handover of the building. Until this point, I was unaware of significant post-handover construction works prior to the anticipated patient occupation date and was unaware that this was the reason why HAI Scribe stage 4 could not yet have taken place.

27. I have been asked what reassurance (if any) I took about the IPC risks associated with water and ventilation at the time. I had insufficient understanding of the documents on the project data storage system we were referred to by the project team and so needed to see evidence / reports that were in a format I could readily understand.

Stage 4 HAI SCRIBE

28. I have been asked to review an email of 27 March 2019 from Donald Inverarity re the Stage 4 HAI-Scribe **(A40988853 – Email chain regarding IPC site visit 20 March 2019 – Bundle 13, Vol. 3, Page 462**). I was requested to obtain air pressures for all the isolation rooms and ensure there has been some assessment of air flows and pressures as Donald Inverarity was unable to attend a potential meeting to discuss HAI Scribe phasing plan. I therefore agreed to take this action forward as substitute for Donald. As the request was not fulfilled, I do not know if there were any concerns around air pressures in isolation rooms at this point in time. Additionally, no HAI Scribe reviews were arranged by the project team by 27 March 2019. As above, after the March walkaround it was agreed I would arrange dates with the project team to carry out Stage 4 HAI Scribe Reviews. These took place on 26th April (in patient wards including haemato-oncology in Lochranza and PICU Paediatric critical care), 2nd May (outpatients) and 17th May (theatres and imaging).

29. The type of evidence required by IPC prior to the Stage 4 HAI-Scribe being passed would be evidence that ventilation and water systems are designed and performing in accordance with SHTM 03-01 and 04-01 respectively. If Stage 4 HAI-Scribe was not completed prior to handover of the build for patient occupation there is risk of delay and lack of assurance for safe occupation. The Project Management team is responsible for conducting and completing HAI Scribe with input from all stakeholders. All parties who took part in the Stage 4 HAI Scribe review are responsible for checking content for sign off and it is a joint responsibility, which the Project team coordinates.

30. In relation to the Stage 4 HAI Scribes for this project, department reviews took place on 26th April (in patient wards including haemato-oncology in Lochranza and PICU Paediatric critical care), 2nd May (outpatients) and 17th May (theatres and imaging). Lindsay Guthrie is best placed to respond on the Stage 4 HAI-Scribe review undertaken on 26th April regarding Lochranza – Haem/Onc ward; PICU – paediatric critical care; and DCN Acute care (**A35230420 – HAI SCRIBE Stage 4 – Inpatient wards & PICU – 3 May 2019 – Bundle 5 – Page 95)**. As part of the review team it was the first time I had participated in a Stage 4 HAI Scribe process and was therefore part of my learning alongside Lindsay as my senior colleague. The checklist question set was completed by Lindsay Guthrie, and she wrote comments that the review was incomplete pending request for more information and evidence. During the course of the HAI Scribe reviews, the team named on the Stage 4 HAI Scribes (Lindsay Guthrie, Ronnie Henderson, Fiona Cowan, Dorothy Hanley and Janice MacKenzie) visited the relevant areas and carried out a visual inspections, had discussions whilst doing so and therefore were able to complete the HAI Scribe document as seen (**A35230420 – HAI SCRIBE Stage 4 – Inpatient wards & PICU – 3 May 2019 – Bundle 5 – Page 95)** with comments where required. I do not recall exactly how long it took but each review took a number of hours. At this time, I did not see evidence around water sampling results nor ventilation validation.

31. I have been asked about a handwritten note at question 4.26 which asks: *Is the ventilation system designed in accordance with the requirements of SHTM 03-01 "Ventilation in Healthcare premises"* **(A35230420 – HAI SCRIBE Stage 4 – Inpatient wards & PICU – 3 May 2019 – Bundle 5 – Page 95)**. The box for "yes" is ticked but with an asterix and a separate comment which states, "*with derogation 4ach/r – single room, risk assessed + approved*". This is not my handwriting. I was not aware prior to the review that there had been a risk assessment regarding derogation to a/c rates nor when or whom this had been completed by and where it had been approved and therefore, I am unable to advise of the content. I believe the asterix was an indicator to follow up and review this information and other information asterixed in the document. Visibility of these would be required before IPC could participate in signing off the HAI Scribe.

I do not recall whether there was discussion regarding exactly which rooms the 4ac/h applied to at the time of the review. At this point in time my understanding was that SHTM 03-01 advises 6ac/h for single rooms and 10ac/h for Critical care and Neutropenic rooms.

32. I have been asked to review an email from Lindsay Guthrie to Ronnie Henderson of 17 May 2019 **(A40988859 – Email chain between Lindsay Guthrie, Sarah Jane Sutherland and Ronnie Henderson regarding RHSC Ventilation – 24 May 2109 – Bundle 6 – Page 152**). Lindsay Guthrie is best placed to comment on this email.

33. On 01 June 2019, additional information was requested by IPCT to allow completion of the HAI-Scribe Stage 4 Checklists **(A35230420 – HAI SCRIBE Stage 4 – Inpatients Wards & PICU - 3 May 2019 – Bundle 5 – Page 95)**. I cannot recall exactly what was requested, but my recollection is that IPCT had not received visibility of all water and ventilation results/commissioning yet. IPCT were unable to confirm completion of all items and if the HAI Scribe was not completed it could have potentially caused delays to the Project due to lack of assurance and management of risks.

Reflections on IPC involvement

34. I have been asked if there were sufficient opportunities for IPC to be involved with the Project at all stages. I cannot comment on the period before I was in post as I was only involved in Project for approximately 6 months from December 2018 onwards, and only attended a handful of meetings. My role was mainly around room reviews and participation in HAI Scribe with the Project team and IPC colleagues Lindsay Guthrie and Donald Inverarity.

35. In the short time I was directly involved in the Project, my request for room review on 24 January 2019 were not met positively initially but they did happen on 28 January 2019. There was resistance by the Project team to repeating any review or ‘sign off’ activity. The Project team cited involvement of the previous post holder advising that room reviews had been signed off by my predecessor.

However, I felt it was important for me to be able to physically see what was being provided and give any comment regarding any IPC issues or concerns as there had been ongoing construction activities since my predecessor left post. The Project team may not have appreciated that this was why I made the request. In respect of being involved in any future HAI Scribe review it would be inappropriate in line with my NMC registration to 'sign off' on anything I had not seen.

36. I cannot comment on whether or not there was sufficient IPC involvement within the Project because I was not involved in the Project prior to January 2019, having only taken up post in December 2018. The previous post holder as well as Lindsay Guthrie and Donald Inverarity are better placed in responding to questions in relation to IPC involvement during the life of the Project and up to the opening of the Hospital. I was not involved in IPC sign off of the remedial works.

37. I have been asked whether or not NHS Scotland Assure and corresponding Key Stage Assurance Reviews ("KSAR") will assist in involving IPC in new builds of healthcare environments. At this stage, it is unclear as they are a new organisation so it is difficult to assess the impact NHS Scotland Assure will have.

38. In my view, for formal IPC involvement to be guaranteed to a sufficient degree in similar projects, I would say there needs to be sufficient workforce in place with relevant skills, knowledge, and experience to support capital builds. The built environment is only one component of an IPCN workload. There is no formal in-house training available at this time and any courses offered out with the NHS usually require funding and potentially time off for staff to attend. Capacity and skill mix does not always allow IPCT to participate in every aspect of a project and support is given often based around other clinical activity. Staff require a good knowledge/experience base in IPC before undertaking such courses for training to be meaningful. There are more and more asks being placed on the IPC team over and above the daily tasks such as outbreak management, education and audit to name a few.

There are no associated uplifts in funding or staffing to support the expectation of IPC involvement across a variety of areas. There is no provision within the strategic workforce plan for workload demand.

Declaration

39. 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.