Scottish Hospitals Inquiry
Witness Statement of
Emma Somerville

Witness Details

1. My name is Emma Somerville. I am a Senior Charge Nurse, otherwise known as Designated Senior Nurse of ward 2A, referred to as the Schiehallion Ward, at the Royal Hospital for Children (RHC) in Glasgow. My employer is the National Health Service Greater Glasgow and Clyde (NHSGGC). I joined the RHC in Yorkhill around 2002, so have been employed with NHS GGC for approximately 20 years.

Professional Background

2. I began my nurse training in 1999 at Caledonian University, which was a three-year Diploma in Higher Education. I qualified as a Registered Nurse in Paediatrics (also referred to as Child Branch).

3. My first job was in the Schiehallion ward in Yorkhill hospital. I went on to do obtain a degree in Palliative Care and Pain Management at the University of Paisley.

4. Around 2012, I did a further qualification in administering chemotherapy at Robert Gordon University, which allowed me to administer chemotherapy safely to patients in the Schiehallion ward. It was in the old Yorkhill Hospital. - and it was an Open University course. It was mostly online learning and our Nurse Educator, who was on the ward at that time, led on it, but the governing body was Robert Gordon.

5. In 2015 I returned to Caledonian University where I completed a non-medical prescribing course, which allowed me to prescribe drugs as a non-medical

prescriber. The phrase, 'non-medical prescriber' refers to individuals who are not doctors but are legally permitted to prescribe medicines, such as nurses, physiotherapists and pharmacists.

Awareness of Families and Patients' Evidence

6. I am aware that there has been evidence given by families to this Inquiry. I was on maternity leave for a year when most of the families were being interviewed. I came back to work in September 2021 and there were a lot of families giving evidence at that time. A lot of the evidence was not very nice, so I chose not to watch anything. I did not see how it would have been helpful at that moment in my time at work. I think my name was mentioned during the evidence. This was something the Lead Nurse discussed with me.

Current Role and Specialism

7. I am the Designated Senior Charge Nurse in Ward 2A in the RHC in Glasgow. Ward 2A is a haematology and oncology Ward. I worked in the Schiehallion Ward within the old Yorkhill hospital and moved over to Ward 2A in 2015 when the RHC opened. I have now been working at the RHC for seven years and can discuss the following topics: my role and duties; ward 2A, including the facilities available and the treatment it offers; the decant to ward 6A; communication between staff and families and communication between staff and management; Infection Control (IC) including our Standard Operating Procedures (SOPs); and my involvement with Incident Management Meetings (IMTs).

8. My Line Manager is the Lead Nurse, to whom I report. There have been several changes in the Lead Nurse since I have been in role: Melanie Hutton, Kathleen Thompson, Gael Rolls and now my current Line Manager is Catriona Riddle. I escalate any issues which may arise to the Lead Nurse and Chief Nurse.

9. I am responsible for the day-to-day running of the ward's nursing side. I manage the core group of nurses and ensure that all the families and children are safe on a day-to-day basis. This also includes the coordination of nurses looking after the patients. I also work alongside the Day Care Unit (Ward 2B), and check if there are patients who will be transferred over to Ward 2A for admission.

10. A typical day would start with me receiving a handover from the night shift and I would address any issues that had occurred overnight. Then we have a RHC hospital-wide safety huddle at 8am. This takes place twice daily. These are meetings that the nurse in charge or SCN would attend at 8am and 3pm and are chaired by the Lead Nurse and the Hospital Coordinator. At the safety meeting, the nurses in charge/ SCNs for the RHC hospital record their patient numbers for the day, patient acuity and predicted bed numbers. The numbers of staff on shift during the day and on night shift are recorded and any shortages noted. If we did not have safe staffing levels, I would report that along with the requirements I needed to make the unit safe. Unfortunately, sometimes, since we are quite a specialised core group of nurses, with chemotherapy or Bone Marrow Transplant (BMT) skills, there is not always help available from nurses with the requisite skills, in which case we would require to resolve any staffing issues ourselves. At the huddle, we would also record anything that may affect the running of the ward, such as any patients who need to attend other wards or hospitals. After the safety huddle, the Lead Nurse begins a post huddle meeting, referred to as a touch point, with the Senior Management Team for the RHC. There is a separate safety huddle for QEUH.

11. At the safety huddle, we discuss issues such as bed capacity. If the ward is full and we need to bring in children for chemotherapy, we discuss with the consultant on call or the patient's consultant whether it is safe to move particular patients out to other wards. We generally only do that when the ward is full. However, when we were closed to admissions previously, we did move

children out to other wards, but that would have been the decision of the patient's consultant and it would have been on the basis of a balance of risk.

12. We always need to have our transplant patients or patients who require chemotherapy on the ward because the nurses in other areas cannot deliver that care; only our specialised nurses can. If, on the rare occasion chemotherapy has to be administered elsewhere, for example, if a patient is ventilated in intensive care, then two of our ward nurses would deliver the chemotherapy there and support the patient care at this time.

13. Other issues that would be raised at the safety huddle are: patients in Ward 2A who have been or will be transferred to other wards; patients who require high-risk infusions. Any incidents (Datix) which have been reported can be escalated; or drug administration errors. Datix is the reporting system for the hospital, managed under health and safety protocols, where any issues, near-misses or accidents are recorded.

14. I also investigate any drug errors that occur and these would also be included on the Datix. We administer a significant number of drugs in the unit, approximately 200 to 300 drugs in 24 hours. Unfortunately, there can occasionally be human error with prescribing or administration. At that point we would report it in a Datix and discuss it at the Clinical Governance meeting. We would investigate the incident and why it happened. We would explore whether it was a nursing error and whether extra teaching is required. Most of the time we request nurses to do a reflection on what happened as a lesson learned. A Nurse Educator would be involved, and the Datix goes to the Lead Nurse for final sign-off, as well as alerting all of the Senior Management Team (SMT) and, if it was a prescribing error by one of the medics, the consultants would normally manage the medical side.

15. At 7.30 a.m. all nursing staff on shift attend handover meetings and also at this time a safety brief is given. We started providing electronic copies of the safety brief a few years ago, and we have that on a shared drive. Logging in and

checking the electronic safety briefs is something I would advise my staff to do if they had been on annual leave, or if they are running late.

16. We have a handover with the medical staff at 9am which is attended by the Nurse in Charge (Senior Staff Nurse or Charge nurse). The Nurse in Charge also participates in the ward round. At half past 12, we carry out ward handover: all the medics and the Nurse in Charge discuss and make plans of care and treatment following patients being reviewed on the ward round.

17. I am responsible for resolving complaints from families and I try to resolve any issues locally. If this is not possible, I escalate them to the Lead Nurse, Chief Nurse or General Manager.

18. If there are any Estates issues, I make sure that these have been recorded on the Facilities Management (FM) system (the reporting system for any Estates issues) and contact the relevant people in Estates. If there is any cleaning to be carried out on the ward, I make sure that we know where we will move patients to allow this to bedone.

19. I ensure that we are carrying out all necessary checks on the patients. If a child has sickness and diarrhoea or anything infectious, or which could cause an outbreak, we will isolate the child. At that point, we would ensure that a nursing care plan is put in place, in accordance with the local guidance which we follow and implement all necessary measures. The domestics would clean the rooms twice a day so that these rooms receive increased domestic cleaning. The nursing staff would wear PPE which includes a yellow apron, as a visible sign that there is a difference in the way in which we nurse those patients and complete all necessary nursing documentation. We ensure that the room doors are closed all the time and we would advise the patient and their family members not to use the communal areas with other children.

20. I work closely with IC when treating the children in the ward. If the children have infections that require to be isolated, then the Infection Prevention

Control Team (IPCT) would advise accordingly. They would then monitor the patient daily and we would provide an update on that patient to the IPCT usually when they contact the nurse in charge by phone call, or come to the ward to review the patient, and act on any further advice theyprovide.

21. If a child is in isolation and is going to theatre, we would let theatre know. The patient would then go on a red pathway which means that they would go last on the list so that the theatre room can undergo a deep clean once the procedure is carried out.

22. I currently oversee health and safety matters on the ward. This includes ensuring that all of the nurses have completed their moving and handling training. In addition, I make ensure risk assessments are completed/updated. This would include ensuring that the risk register is followed. I attend the Clinical Governance bi-monthly meeting and we discuss the risk register and risk assessments. The risk register is something I would review and that is local. There is a corporate risk register, but I do not review that. I believe that any risks that we put on the risk register are uploaded into a shared drive and the Clinical Services Manager then reviews the risks. With risk assessments, IC now comes to our Clinical Governance meeting and, at this meeting, we discuss all risk, and one of the medical staff will lead on to going through any reported Datix. We review the previous months Datix once they have been investigated. Lessons learned are then discussed so that the wider team knows the outcome and this would then be available in a minute. I would usually submit the risk register the week before to Dr Sastry, the consultant leading on Clinical Governance. Our Quality Manager would circulate it and, if anybody has any comments and if there were any additional risk, it is raised. Staffing levels when we were in Ward 6A is an example of something which was on the risk register because we were working over two floors in Wards 6A and 4B. Another example is when we had issues with the water on Ward 2A and one of the ways of mitigating risk was putting filters on taps and instructing an external company to carry out water testing.

23. I also complete audits through the Care Assurance system or LanQip system. LanQip is the system we use to monitor central lines. We conduct an audit, which reviews the documentation by assessing whether there is continued evidence of care and maintenance of central line care. The same audit is carried out with peripheral cannulas, for example to see whether the cannula was needed; whether hand hygiene was performed before insertion; and whether there is continued evidence of care and maintenance of the peripheral cannula.

24. Another audit we carry out is Standard Infection Control Practices (SICPs), which is conducted as a spot-check of rooms. We normally try to arrange for that to coincide with the enhanced supervision in respect of IC measures (as referred to at paragraph 40 below), which is conducted once a month and has been in place since May 2017.

25. We carry out local peer audits in place for the patients for whom we are responsible. These came in shortly after I was in post. For example, once a month, we would do a local hand hygiene review. We all make sure we conduct peer audits and spot checks of staff hand hygiene and the results are recorded on our feedback board for everyone to see.

26. My role also includes some responsibilities for Human Resources (HR), such as reviewing nurse absences and carrying out any subsequent return to work interviews. I am also responsible for ensuring a safe level of nurses on each shift and if not, I escalate the issue at the safety huddle, as mentioned earlier at paragraph 10.

27. My role requires that I attend various meetings within the Multi-disciplinary Team and wider hospital service. These are varied and include Child Protection and IC meetings, among others. Previously, when we were experiencing difficulties in the ward, I would attend Problem Assessment Group (PAG) and Incident Management Team (IMT) meetings. A PAG is convened to undertake an initial assessment in respect of a suspected

infection incident, with the aim of managing this locally in the first instance, if appropriate. My role at the PAG would be to provide an update regarding the patient. This would be given to a representative from both IC and microbiology. I would relay any concerns I had regarding the patient. In attendance at a PAG, generally, would be IC colleagues, a Senior Nurse and Infection Control. Sometimes Microbiology would attend. The Lead Nurse would want to be aware of it, and may attend, and maybe the Chief Nurse, although they are more visible at IMTs than at PAGs. The PAG is a smaller group because, at that point, the concerns do not need to be escalated. We would collectively try to find a solution at these meetings. If there were two or three patients with the same infection or an increased infection, or IC were worried about something, they would normally call a PAG. I would attend from the nursing side, if available, and then we would put actions in place and review these if there were any more infections.

28. If there were still an increase in infections, and if the issues were not able to be resolved at the PAG stage, then at that point it would be escalated to an IMT meeting. In the last five years, attending IMT meetings was a large part of my day-to-day role. I still attend IMT meetings when required. My role at the IMT is to represent the nursing side. The consultant or a medic attends from the medical side. They enquire how a patient, or the patient group, is, as well as asking about staffing and whether I have any concerns. I will also be asked whether I want to escalate or raise anything at the time. If we are planning deep cleans or Hydrogen Peroxide Vapour (HPV) cleaning, then I would coordinate those processes, ensuring there are adequate numbers of staff and considering whether we need to move patients to allow this to happen. I need to have an overview of what is happening on the ward at that time and be involved in decisions affecting the ward, so that is generally why I am invited to the IMTs.

General views on the opening of RHC, QEUH and Schiehallion Unit - 2015

29. When the RHC opened in 2015 I was a Senior Staff Nurse. I carried outsome visits and thought it looked impressive. Then when we moved in and we encountered some challenges because of the different shaped ward, which was curved. We were used to the Schiehallion in Yorkhill being a straight corridor with the rooms off it, which made it easier to see all of the patient cubicles. Due to the difference in the shape of the ward, we had to use a different approach to the way we nursed. We initially found the change challenging but, as time went on everyone settled and gotused to it.

Description of Ward 2A from June 2015 – September 2018

30. Ward 2A is on level 2 of the RHC. It is a 24-bedded unit, with two entrances. The hospital was a lot larger than we were used to in Yorkhill, as was the ward. Ward 2A has the Teenage Cancer Trust (TCT) unit, which has a social space including a kitchen and activity area for our teenage patients. The TCT was part of Ward 2A when the hospital opened in 2015. When we were back in the old Yorkhill, the TCT was on the seventh floor out with the ward, therefore, moving to the new hospital was an improvement for the teenagers.

31. We were told that the facilities in the new hospital would be “like-for-like” when we moved, but having no staff room was a bit disappointing. The children were getting better facilities, as were the parents, so that felt goodenough.

32. There were eight BMT rooms which meant we could look after more BMT patients, so that was better. The scanners were better, as was the other equipment we would use. If you put all these factors together, along with the location of the hospital, everything being next to the Queen Elizabeth University Hospital (QEUH), I can understand why it would be described as “state of the art”. The old hospital Yorkhill was also getting a bit tired; it was an older building.

Standard Operating Procedures (SOPs)

33. We have protocols which only apply to wards 2A and 2B. There are also SOPs which are followed, many of which apply only to haematology-oncology. These are accessed through the Q-Pulse system and are used in situations such as setting up a BMT room or reading the fridge temperatures in our unit. We provide the necessary information to the Unit Quality Manager and she generates it into a SOP.

34. As a team, the senior nurses and the Nurse Educator developed all of the SOPs for the new Metaiodobenzylguanidine (MIBG) suite which is where we deliver high-dose radiation to patients. This was a new service, following the major refurbishment of Ward 2A. Other areas would not use these SOPs because they are quite specific to our area.

35. Local Schiehallion protocols in relation to antibiotic use can be accessed via NHS GGC Staffnet. If the Schiehallion patients are moved between wards, or are in the Emergency Department, the medics in Clinical Decisions Unit (CDU) can refer to these protocols, However, there are some SOPs that are hospital-wide, for example, IC protocols in relation to nursing patients with diarrhoea and vomiting.

36. Other protocols that we use are Chemotherapy protocols.. For example, the treatment for a patient with Leukaemia is administered in different phases. Induction, which is the first phase of treatment, lasts for five weeks. When induction is completed they move on to the next phase. All treatments are guided by the appropriate protocol.

37. The SOPs are reviewed every two years, which is noted in the footer of the SOP. These can be accessed via Q-Pulse. The Unit Quality Manager would email them to all the staff in the wider group for comment.

Paediatric Early Warning Scoring (PEWS)

38. The Paediatric Early Warning Scoring (PEWS) chart is a tool we use for all patients and is used as an early indicator for the deteriorating patient. We carry out peer audits to ensure the correct escalation process is followed. This would include: ensuring that the correct information is recorded, confirming whether the nurse in charge was contacted; confirming whether the patient needed a medical review; and ensuring the correct score is recorded for the patient. For example, a patient may score one for having a temperature and another one for low blood pressure and, as part of your audit, you are checking that the clinical scores have been recorded correctly.

39. All of this information is submitted onto Care Assurance, which is a shared database that can be accessed by the ward senior nurses. The Lead Nurse and Chief nurse access that database and escalate it accordingly.

Enhanced Supervision

40. Once a month the unit is currently undergoing enhanced supervision and external hand hygiene audits. It is IC who carry this out. Enhanced supervision has been in place since May 2017, which is when we had the increased line infections, in Ward 2A. It would be myself, as the designated SCN, who coordinates this, or one of the other senior nurses from the ward if I am not available. We have representation from Facilities, Estates and IC. One of the Lead Nurses would also attend. Generally, five people, maybe six are in attendance. IC carry out some checks in the ward and, if there are any causes for concern, we would all work together and formulate an action plan to rectify it, which is ultimately returned to IC. For example, if they find dust on a drip stand, that would be a nursing action because a drip stand is nursing equipment. We would take that drip stand out of use, clean it, check it and then put it back in use. If IC found dust or something on a shower head, that would be a matter for Facilities. They would arrange for one of the domestics to clean that or replace the shower head, or whatever they had to do before it's put back in action. If there were a tear on the floor, that would be a matter for Estates colleagues. We would close the room, give them access and they

would organise the repair. Sometimes they will look at the equipment we use for monitoring blood sugars. If it required to be cleaned, we would arrange for this to be cleaned and put it back to use. Each department would document the actions carried out by them on the action plan. This is then returned to IC with the SMTs copied in.

41. IC would previously have visited patients' rooms, but they now focus on reviewing empty rooms, ready to receive patients. That process was a result of COVID and trying to reduce the footfall in the rooms, and it has stayed that way. I think it is better, because it is less invasive for patients who may be unwell in their rooms. While we all appreciate the importance of ensuring that the ward is safe from an IC perspective, I am aware that enhanced supervision has led to added pressure on staff, increasing workloads, due to the additional cleaning and tasks that we do, which can sometimes demotivate staff.

42. Prior to the enhanced supervision taking place, Stefan Morton, a hand hygiene specialist from IC, attends the unit to carry out hand hygiene checks. He then completes a local audit which include watching members of our staff washing their hands. This would be scored, and he would let us know any areas for improvement. These results would be shared with the staff and attached to the enhanced supervision results. We would also be informed if we were performing well in any areas, which would also be shared with staff. I believe that these added measures give assurance to the patients and families that we are doing extra checks and being as vigilant as we can be. We always try to carry out these processes in the least invasive manner possible for the patients.

Patients boarded on other wards

43. If a patient is transferred out with the Schiehallion Ward, for example, if there are no beds available, the same protocols apply to the patient even though they are being treated in other wards. We obviously would not move the chemotherapy patients or transplant patients. If a patient came in with a fever or was about to commence antibiotics, they could appropriately be nursed in

another area, because the nurses would have the necessary skills. The patient would continue to be discussed at the nine o'clock handover with the medics, because they would be on our haematology oncology patient list. They would be discussed at half past 12 at the handover, following the ward round. They would be reviewed by Haematology/Oncology medical staff each day. There is continuity of care in respect of our medical staff for these patients. The only difference is that the nursing staff would not review them because it would be the nursing staff in that ward who would be looking after them, as we would be looking after the patients in our ward. If they needed something like a line dressing, or something that the nurses in the other wards would not be happy to do, we would usually send a nurse from the Schiehallion Ward to do it, or an Advanced Nurse Practitioner.

44. There would also be patient movement if there were pressures on bed numbers. If the ward was full, we would prioritise taking the BMT patients and the patients requiring chemotherapy because we have the nurse skill set to deliver care. We would follow the patient pathway if a patient had a temperature when they arrived, and could be treated in another ward, if our ward was already full.

45. The patient pathway means that a patient would transfer to another ward with the priority given to patients needing chemotherapy or a BMT. We would ensure as far as possible the level of care the patients received did not change. Those patients who had to get moved would not require a specialist nurse. We follow a patient pathway for COVID, so patients would go to the CDU. If they are lateral flow-negative, they can be admitted directly to the ward. Throughout COVID, that pathway has changed. The patient pathway, back then, would have been the same, although we checked PCR screening for COVID. If a child presents with a temperature, they would attend CDU and receive their first dose of antibiotics in CDU, before transferring up to Ward 2A. If a patient was receiving chemotherapy, the pathway is that they would arrive at Schiehallion Day Care, which is ward 2B, and chemotherapy would be

commenced and when a bed space was available, the patient would transfer through to the ward.

Issues in the new hospital

Temperature of rooms

46. When we were in Ward 2A before the move to Ward 6A, we received some complaints from families and staff that the ward was too warm and humid. These complaints were escalated to Estates who carried out checks, but everything came back as normal. If families were complaining, we would have submitted a Datix in order to have it raised as a concern at the governance group. This is no longer an issue on Ward 2A.

Proximity of sewage works

47. Families and staff complained about the smells from the sewage works before we moved from Ward 2A to Ward 6A. I would raise an FM job with Estates colleagues, explaining that there was a smell in the ward, receive the FM number, email Estates, copy in the Lead Nurse and Service Manager and I would ask for it to be double-checked. The FM system will generate a job number. We would generally log that, and then if you are following up at the safety huddle, you would be asked for the FM job number.

48. I am aware that chemotherapy patients were upset by the smell. When I spoke to one father, he told me that his daughter was having chemotherapy on the ward and the smell was making her nausea worse. I escalated the situation and reported it. Estates arrived at the ward, looked through the vents and double-checked the plant room for anything that could be causing the smell, but did not find anything. This is still an issue in the newly refurbished Ward 2A, probably more so over the summer months. The smell was reported on FM at some point last summer. I remember emailing Estates colleagues, and this was checked. I am not sure why, but it is the same smell as you smell

outside when you park your car before walking into the hospital. Generally, you can smell on the ward a kind of sewage-like smell. There have been no complaints this year.

Cladding

49. I recall the cladding had to be replaced when we were in Ward 6A. I have been shown two documents: (**A38845623 – Core Brief dated 12 July 2017 – Bundle 5 – Page 67 and A38845660 – Core Brief dated 10 August 2017 – Bundle 5 – Page 73)** which are in relation to the work being carried out on the cladding. I do not remember seeing these specific core briefs. I was aware about Grenfell, but until I started getting the communications that we were to advise the patients not to use the normal entrance, I probably was not paying much attention. I think Dr Inkster was worried because there were skips at the front of the building and that is where they were pulling the panelling off and her concern was that there may have been an Aspergillus risk. There were face-to-face communications with the families, asking them to use another door, but it took one or two weeks for the follow-up written communications to be issued. I know that because I forwarded the email to follow it up. When we did ask the patients and families to use the other entrance, they gave feedback that they could not get through the doors for the volume of smokers and cigarette smoke that they were having to pass. I cannot remember what the resolution for that was or what happened.

Flooding

50. Occasionally, we experienced flooding from some of the showers in Ward 2A. Parents would tell me that the shower was blocked or had overflown, and these issues would have been raised with Estates. I believe it was raised at IMTs since I recall one occasion where two Estates members accompanied me back to the ward to double-check a few rooms. On another occasion I reported a concern about a shower to FM and raised it at an IMT meeting. I would have stated that the families' complaints were the reason for this, but I

cannot recall which patients were affected. The wet rooms, where the showers were, were sometimes obviously not draining. Then the floor would be wet, and we would probably then need to move the patient into another room to allow Estates access to look at the drain to find out why that was happening. It did happen a few times and, again, it would have been put on the FM system. However, there have not been any problems since we returned to the refurbished Ward 2A.

Infections

Hospital Acquired Infections

51. If a patient comes into the hospital and they then became ill with an infection more than 48 hours after being admitted, this would be classed as a hospital acquired infection. I recall this being discussed at an IMT meeting.

Central lines and the risk of infection

52. As our patient group is immunocompromised, this means that they are more vulnerable to infection. This is because some of the drugs we administer lowers their immune system, meaning they are more susceptible to infections. BMT patients are even more vulnerable due to the high-dose chemotherapy which they receive. Most of these children are in-patients for at least 4 to 6 weeks.

53. The measures we take to ensure children do not get infections include: always adhering to good hand hygiene standards; extra cleaning of the environment; and ensuring that central lines and cannulas are well cared for. We also ensure that we use the correct PPE at all times. All these additional steps are taken to reduce infection in this vulnerable patient group.

54. When staff are preparing a child to go to theatre, they always ensure that the patient is clean, i.e. that they have had a shower and their skin was clean. If it

is a baby that's an in-patient, we would make sure that regular nappy care is carried out.

55. There are, however, bacteria that live on your skin and your gut. If you have a low immune system, they can sometimes get into your bloodstream and cause infections. Although we always try to prevent patients from getting infections, this is not always possible due to the vulnerability of the patient group.

56. Often the children in Schiehallion receive a large volume of intravenous (IV) drugs and also IV chemotherapy which require a process to ensure safe administration. There are various ways to do this. One way is to use peripheral cannulas, which is a plastic tube, which is inserted into the child's vein. These are not used often because they only last a couple of days.

57. Central lines are a plastic line that is inserted in theatre. They generally have two lumens (access points) which allow blood to be removed, blood products and chemotherapy to be delivered and provide direct access if the child becomes ill and we require to deliver drugs or fluids quickly.

58. Another type of central line is a port-a-cath. These are also inserted in theatre and are situated under the skin. In order to access it you put a gripper needle in. This means that when the gripper needles are taken out of the skin, there is nothing over the skin so your child could then be bathed without the port getting wet.

59. Any foreign body whether it be a central line, a PICC (Peripherally Inserted Central Catheter) line, a port-a-cath, a catheter, that all comes with additional risk of infection. Most of our patient group have a central line or a port-a-cath because of chemotherapy administration.

60. In choosing whether to use a central line or port-a-cath, it is very patient-centred. If the patient is a toddler who going to be in the bath often, or trying to pull at their line, it may be safer to insert a port-a-cath, because the gripper needle is removed between treatments. Some of the teenagers prefer a port-

a-cath because they attend school in between treatments and they do not want to have a visible line in their chest. There are a whole variety of things to be considered: the type of treatment; when you would need access to the line: what medications they are going to get; whether they are at risk; whether they might pull it out; and whether they are going to be taking a bath. We consider quite a lot of things and it's usually a Consultant's decision, but obviously if nursing colleagues have concerns, we could discuss that with the patient's consultant.

61. Another option is a PICC line. This line is not as invasive, although usually inserted in theatre. A PICC line is usually in your arm and goes into the body that way. This is a long-term device, but not as long-term as some other central lines.

62. Then there is the peripheral cannula, which should only last 72 hours. Sometimes we have them in longer because our patient group does not have good intravenous access, and that is because we need to use their veins so much. It's very patient specific.

Central Line care

63. We try to mitigate infections in these lines by doing several things. We ensure that the child is kept clean and that they have the appropriate dressings, and we ensure that the line care is recorded on a Care and Maintenance bundle every day, which provides evidence of good line care. Something that is now used are disinfectant caps. This is a little disinfecting cap on the end of the line, which is designed to keep the end of the line disinfected. When this cap is removed it now means that the end of the central line is clean for access.

64. If the line is not in use, it has a cap on it. These caps were introduced a couple of years ago. They came as a recommendation from our quality improvement group, which I will talk about later, as one of the ways of trying to reduce line infections. At one point I recall that there may have been concerns around these caps and the drying time for them, but I cannot remember the detail. I

think the disinfecting caps, along with ensuring the line dressings were changed every 7 days, were introduced as an additional measure for mitigating the risks for line infections.

65. If the child is going to theatre for the insertion of a central line, we make sure that they have had the appropriate shower and skin cleaning beforehand. At one point we were using a special cleaning agent that was recommended by the quality improvement group as a preparation for the skin before putting central lines in. I cannot remember the name of it, but you cleaned the chest with it. However, IC advised that we stop doing that, as I think there may have been a risk associated with it, so we just went back to using soap and water.

66. If there were a line infection on the ward, one of the things that might happen is a practice developer would monitor nursing practice. I did speak about it at the time to the Chief Nurse. She gave me added assurance that nursing staff were demonstrating good practice, which is why she was keen to monitor, to demonstrate that we had good practice and to give added assurance. She noted that the nurses on the floor might be a bit more sensitive to it. It is just trying to strike a balance.

67. I do not think the infections stopped until we moved out of Ward 2A. Something that we have kept in place are the Bio Patches, which are a chlorohexidine impregnated dressings. We used to change the line dressings after 48 hours, we only now do it every 7 days so you are not disturbing the skin unnecessarily. This was recommended best practice from the CLABSI group.

Protocols around suspected line infections

68. Children may spike temperatures and become unwell after chemotherapy or when they have a low immune system (neutropenic). That is why we closely monitor patient observations using the PEWS chart. We would generally do observations every four hours, or more frequently if required. If the patient

scores on the PEWS chart, you refer to the chart and it will tell you what the correct escalation is, for example whether you should report to the nurse in charge, or report to a medic. Some of the drugs that we deliver to our BMT patients require close monitoring and therefore more frequent observations.

69. If a child spikes a temperature and is neutropenic, we have a SOP that we follow and standard antibiotics that we give the child, namely: Tazocin and Gentamicin. These are broad-spectrum antibiotics which would cover everything. If the patient continues to be unwell, we look for a source and working closely with Microbiology, to try to find the cause and solution. Microbiology would then recommend the antibiotics for each patient.

70. We then take bloods to send for culture and send them to microbiology. We receive the results from microbiology and these would show if there were any bacteria and what the specific type was. These results would also show if there was anything else present that needed to be treated.

71. If a patient's clinical condition does not improve over a period of time, we ask microbiology for advice and there would then be a discussion between the medical team and Microbiology whether another type of antibiotic could be used, or if the treatment plan in general should be altered.

72. If these infections are not treated quickly, the risks to the patient can be severe. Children who are immunocompromised and have a central line in-situ are at risk of becoming seriously unwell. This could result in the patient having to have their line removed and or having to transfer to Intensive Care for more invasive treatment.

73. Chemotherapy cannot be administered if a patient becomes unwell with an infection and therefore treatment can be delayed.

74. We would generally find out if one of our patients had an infection when we were informed by Microbiology and IC. Microbiology would advise us what

antibiotics should be used and if the central line could remain in place. These were usually things like, gram negative and gram positive infections.

Monitoring infections and infection prevention and control

Meetings with Microbiology and Infection Control

75. We work closely with Microbiology and a representative from Microbiology is contactable on a daily basis. There is a departmental meeting on a Friday, which the Microbiologists attend. They would also explain the individual patient plans and which treatment they would recommend for particular patients. Microbiology also receive a clinical update about patients and their clinical presentation.

76. There is an IC meeting the first week of the month. The meetings are on Tuesdays and are led by the Chief Nurse and IC. The purpose of these meetings is for IC to update on anything from the IC perspective, for example, any wards that have had any outbreaks, themes of the month, winter planning, immunisations. They will then go round each individual person and ask if anybody has any IC issues to raise, or anything they want to escalate or discuss. I know this is my opportunity to raise any issues. If I have any urgent IC issues, I can contact IC at any time.

Infection Prevention and Control Procedures

77. With regard to my involvement with IC procedures and governance on the ward, I would ensure that the IC procedures are kept up to date, like the local policies, the hand hygiene and the SICP audits. We closely follow the IC SOP for patient placement. If there are concerns, such as a patient with a particular virus we check with IC about the safety of treating that patient in a particular room.

78. If we have any concerns regarding infections generally, we contact IC. If, however, it is over a weekend, or out with working hours, we check with the on-call Microbiologists just to make sure that we are placing the patients in the most suitable and secure room.

79. Additionally, if there are any patients in source isolation, I check that the appropriate care plan is in place and that everything on this plan has been completed. Along with this, I ensure that the appropriate documentation is in place. If I am not available to do this, I would deputise this task and one of my senior staff will take my place.

Prophylactic Medication

80. Given that many of our patients have a lowered immune system and are extremely vulnerable to infection, they are prescribed prophylactic medication. A common one we give to children is Co-trimoxazole, which is a prophylactic antibiotic sometimes known as Septrin. The children get that twice a week. That prevents against a type of chest pneumonia. Some of the children receive AmBisome, which is a prophylactic antifungal, and they would receive as part of their treatment plan. Amphotericin is also an anti-fungal. It would be normal practice to give that to some children to prevent against any fungal infections. Some of the children get Aciclovir which is preventative against some viruses. This is normal for this patient group. It can be oral or it can be administered by IV. Not all children get this; it depends which protocol the children are on.

81. The transplant patients would receive Aciclovir, an antiviral drug, to prevent them getting any viruses. It would be prescribed at a certain part of their treatment and is usually when they are starting their conditioning. Another prophylactic drug is called defibrotide that can prevent renal occlusive disease of the liver can be sometimes used. Generally, as part of their schedule, BMT patients get prophylactic medication. We follow a transplant schedule which states the drugs and route of administration. There are lots of drugs prescribed

prophylactically to prevent the patient group from becoming unwell. The above drugs would be planned prophylactics.

82. Another prophylactic, Ciprofloxacin was prescribed to some patients. This was a prophylaxis that is not generally prescribed routinely, although I do know that it has been prescribed to some patients with down syndrome before. On this occasion, the recommendation to administer this prophylactic came from the IMT and was microbiology led. This was an additional measure for the patient group that the patients generally would not be prescribed routinely, but it was decided case-by-case.

83. It would be the clinician's decision as to whether their patient group would receive ciprofloxacin or indeed prophylactics in general. Most children were on them. On one occasion a concern was raised at an IMT meeting that some of the children were not tolerating ciprofloxacin, which gave some of them gastric upset. Loose stools and vomiting are the only side effects I can recall the patients experiencing, after being administered these drugs.

84. Some patients were on Ciprofloxacin for quite a few months, I recall them being discussed at the IMT. At some point it was changed and the patients received TauroLock, which is something patients continue to receive. All the patients on Ward 2A receive Taurolock and it is now standard practice unless a child has an allergy. This is an antibiotic line lock and it is an extra measure to prevent line infections. That was a recommendation which came from the IMTs, in response to increased line infections, Dr Murphy led on that. We have a SOP for the use of TauroLock administration.

Communication around prophylactic medication

85. I recall that some families raised concerns about their children receiving additional medication which they would not be getting if they were being treated in any other hospital. That would probably be in relation to the ciprofloxacin and I think we were in Ward 6A at the time those concerns were

raised, but I can't really remember timeframes. I recall that the medics and the consultants were updating families. Whoever prescribes the prophylactic should be updating the families and the patients would be reviewed regularly.

86. I am not aware that the patients were being prescribed more prophylactic medication than patients in other hospitals. The only difference would be oral Ciprofloxacin, which I seem to recall was an IC recommendation.

Chronology of events: Ward 2A/2B RHC

Issues relating to the water supply: 2015- September 2018

CLABSI Group

87. There was a period of time in Ward 2A when there was an increase in central line infections and I think that may have been the reason that the IMT was created, along with the Quality Improvement Team (CLABSI). I think this may have been around March 2018; it was a year we had really bad snow. IC were concerned about the type of infections from the patients in Ward 2A before we moved to Ward 6A. This was because they were waterborne infections and one of the hypotheses discussed at the IMT was whether these central line infections were coming from the water, although I do not think it was ever confirmed.

88. When we realised that there was an increase in central line infections in the ward, there was a Central Line Associated Blood Stream Infections (CLABSI) working group set up, maybe in February 2018. It was a quality improvement project, set up by Tim Bradnock (a surgeon) and attended by him, the Senior Charge Nurse from day care, IC, tissue viability team and nurse educators. Our objective was to reduce the central line infections in patients on the ward. We were looking at practices and benchmarking ourselves against other centres, to see what we could improve. This process of continuous

improvement has continued. We now have a low level of central line infections and, through this group, this level continues. We are now one of the gold standard providers for line care within this specialised patient group.

Improvements in practice

89. We benchmarked against Cincinnati Hospital in America and Jen Rodgers carried out a significant amount of work with them. They are gold standard for central line care, so we adapted some of their practice.

90. Members of staff are always focused on what is best for the patients. Groups like the CLABSI group focus on best practice and are not uncommon. Everyone involved was working together to see what we could improve and then feedback any findings or recommendations. I do not think there was any negative feeling amongst the ward staff, as we were trying to improve patient care, and that is what nursing is all about; making improvements and doing the best for the patients.

Concerns about infections and potential link to the environment

91. Although I did not have any specific concerns around the infections or locations of the infections when the hospital first opened, I did become concerned when the volume of infections caused Microbiology to be concerned. The results that we were receiving showed that the bacteria or infections that were present in patients were ones which are normally found in water. We had a lot of children with these infections and this was worrying. We were getting infections like Pseudomonas and Stenotrophomonas, which were infections that we had heard of before and maybe seen in Yorkhill, but not in the numbers being reported in the RHC. Cupriavidus was another infection which was found and IC said that these were all infections which are usually found in water and soil. I have never been involved in anything like this incident before and not on this scale in terms of the presence of Estates, Facilities, cleaning and additional measures that were put in place.

92. IC were concerned about the type of infections, in that they were waterborne, but also the number of children that were having the same infections all at one time. I was concerned because they were concerned and they were the specialists in that area. Staff also did raise concerns about the patients and the types of infections being reported. We had experienced them before but not in the numbers at this time. However, our patient group do get infections and it was not clear if there was a definite link with the environment.

93. Similarly, when we first moved into the new hospital in 2015, I did not have any immediate worries about the water supply. Due to the increase in the central line infections, we were testing the water more frequently and it was during this additional testing that some bacteria were discovered in the water. That led to the IMT being set up, and additional measures being put in place to an extent that I had not seen before.

Concerns about the environment

94. There were a few times we thought the drains may be posing a risk to patients. One of the families had alerted me one morning that there was black gunge coming from one of the trough sinks in one of the transplant rooms. I asked Estates to have a look at it. I do not think they could find anything. There was also a trough sink in the drug preparation room which was bubbling at that point. Teresa Inkster investigated this and, when the ward was refurbished, the trough sinks were removed, and the one in the drug preparation room was replaced with a hand hygiene sink.

Infection Control measures and impact

95. The issues with the infections and the bacteria in the water were being discussed at the IMTs meetings and also with Susie Dodd from IC. I recall that one night (I think in March 2018) she called the nurse-in-charge phone and

told me that something had been found in the water and asked me to advise all of the families not to use the water until further instruction. It must have been a Thursday or a Friday night because I went round and told all the families and handed them two little bottles of water. Over the weekend they were advised to use wipes to wash and use bottled water for drinking and teeth brushing. I cannot recall how long this went on for, but that was probably the start of some of the concerns.

96. The instruction not to use the water and to use bottled water and wipes came from a phone call from IC. As a general rule, if anybody from IC phoned me and gave me an instruction, I would have carried it out, and then, generally, there would be a follow-up meeting. It was not unusual that, if something was urgent, we would get a phone call from IC.

97. There were occasions when there were issues, or on-going work, with the water supply that it would have to be turned off. When this happened, we had to provide the families with bottled water and skin wipes and advise patients and their families not to use the water at all. This was due to advice from our colleagues in Facilities and IC. It happened more than once, sometimes for 4 hours, then sometimes for 24 hours. Having no water in an area where we were cleaning our hands, where patients needed to brush their teeth and clean themselves, and where we were carrying out nappy care, caused quite a lot of disruption. Patients had to wash themselves with moist skin wipes and bottled water. I recall on one occasion pouring a two-litre bottle of water over one of the surgeon's hands while he washed his hands.

98. There was one weekend when we were advised to tell the families not to use the water all weekend. This is when we were given the portable sinks so that the families had access to washing facilities. I think this was while the water tanks were being dosed with chlorine dioxide. I cannot remember having any reactions from patients or families, but it was probably quite odd for them. They would not expect to have to use a foot pump portable sink in hospital.

Whilst the tanks were getting cleaned, the water went off, so it would have had an impact on the patients at that point.

99. It was probably quite a prolonged period that the families and children were advised not to use the water. Staff were obviously really concerned for their patients because when you become a nurse, handwashing and keeping children clean especially when they have central lines in is a huge part of the role. To go from working in this way to then not using the water, it was a change in practice. Staff probably did have some concerns that we were looking after children in this environment. Using the portable sinks and washing our hands in bottled water was unusual practice for staff.

100. During the period where we had the portable sinks, we added another stage to our hand hygiene routine that included Sterilium 90-second gel. We used this after we washed our hands. It would not have been normal practice to add in gel after washing our hands, but it was brought in as a recommendation from IC when we were using bottled water.

101. The additional hand hygiene audits and the introduction of enhanced supervision, along with all the other audits, had an impact on the staff. It put them under more pressure. They were trying to do their jobs and were being subjected to added checks and scrutiny. I can understand why staff were stressed. I do not think it impacted on patient safety. If anything, it was the opposite. We were continually making sure that the environment was clean and safe, and carrying out all these additional checks. I do think it impacted on our relationships with the families. We would be in their rooms checking the vents or looking at the sinks and the families were wanting to chat about other things.

102. During all of this we were thinking about what the best thing was for our patients. I would attend an IMT, and then await further instructions, and then make sure the instructions were carried out. Having portable sinks in your clinical environment and then asking the families to use bottled water for

washing is probably quite unheard of, but at the time we thought that was the safest thing to do for the patients.

103. Although I did not personally have any worries about the water system, it is clear that Microbiologists and IC did, which would cause me concern. Both Teresa and Susie always seemed very concerned. The types of bacteria and the increased number of children with infections caused the concern and it was always apparent that they were acting in the best interests of our patient group.

Closure of Rooms

104. There were periods of time during this where we closed rooms. This happened if Estates needed access, if IC recommended it, or if I discovered a day-to-day issue, such as a leaking toilet or a blocked sink which required to be fixed. I would close the room and raise the issue if it was an Estates issue, such as a leaking toilet. I would immediately close a room if IC called and asked me to do so, because they needed to do checks or they had concerns. After moving the patient, we would wait for instructions.

105. The patient could not be in the room during the work which was being done to change taps and shower heads and replace drains. At that point facilities we were also conducting drain cleaning with a brush so patients had to be moved out because there was a spray risk. When this work was being carried out, or for some day-to-day issues which required to be fixed, patients had to be moved. Families may have had to move rooms on a number of occasions, I can understand why that would not have been ideal for the patient if they had just settled into a room and then had to leave for any reason. I do recall, though, that the families were actually fine with it, provided you explained why you had to move them and that it was for safety reasons or the rooms were being checked. It must, however, have been quite stressful for the families who may have been asked to move rooms to allow access for one thing and then we were back asking them to move again.

106. Now we would only ask the families to move rooms if there are more day-to-day issues, like a blocked toilet, a blocked sink or if Estates needed access to the room, for example, to clean the vents. The room changes would not be as frequent as it was in 2018.

107. We still carry out drain cleaning, but now the patients can be in their rooms because it is a solution that gets poured down the sink.

Source Isolation and extra cleaning

108. I am familiar with the use of source isolation; this is implemented to stop the spread of infection and is used where necessary within our patient group. It is difficult because haematology/oncology patients have a lowered immune system, making them more prone to infection. I do not recall any increase in patients being placed in source isolation.

109. When a patient is in source isolation, we carry out extra cleaning which is a chlorine disinfectant called Antichlor. This is completed twice daily. At the IMT meeting there were also discussions that there was no drain cleaning program in place, so a separate drain cleaning process was also introduced on a weekly basis. I do not know what it is called but that still continues now. On a Monday, Facilities colleagues come in and clean the drain. They dissolve the solvent in a couple of litres of water and pour this into every drain in the ward.

110. In order to accommodate this extra cleaning on the ward (HPV), this would result in the relocation of the children and families. This affected the entire ward. I recall that it happened twice in Ward 2A prior to the move to Ward 6A. This resulted in an increased workload, mostly for nursing auxiliaries, as they were supporting the nursing team. They would be relocating the patient, moving the patient's belongings, emptying the room, moving the furniture and further cleaning. It takes you away from patient care. If I was coordinating that, I am not looking after the patients; I am on the floor coordinating room moves

with my healthcare support workers. For example, I remember one Friday night I was trying to coordinate the HPV cleaning, so that the Healthcare Support worker could still give out the meals and make sure the children were fed, all whilst I was still running a full ward, administering chemotherapy, intravenous antibiotics and supporting the patients and their families.

111. The HPV cleaning continues to be carried out every six months. It was last completed in September. It is much easier to co-ordinate now as they use a hand spray, rather than machines.

IMTs and Hypotheses

112. When the problems were ongoing in the ward, they were exceptional circumstances and I have not experienced anything like this before, nor have I heard of similar issues or levels of infection elsewhere. The issues were continuous: various people needed access to the ward; we were going to continual meetings; and we were updating problem after problem. Nothing seemed to get resolved. Usually, a ward has its normal issues like being short-staffed or maybe a blocked toilet, but they always get resolved.

113. I was attending IMT meetings and there were hypotheses being discussed. They would come from the IC and IMT Chair. One of the hypotheses from the March 2018 IMT was that patients might have been at risk from infection or exposure to pathogens through the water. The hypothesis was never proven. The water was tested and it was recommended as safe which gave me the reassurance I needed. The filters were put on the taps and they remain on at present. We continue to monitor our line infections every month and that data is good. The good results reflect that the measures which we put in place are working.

114. It did take us a while to return to drinking the tap water. From the issues arising to receiving assurances that the water was safe took a while, because I think we continued to use bottled water. I cannot really remember the time

frame, but we did not go back to using jugs of water for a while. We were offering bottled water for drinking and sterile water for the transplant patients for a number of months after all of the additional measures were put in place.

115. I do not believe the precise site of the water problems in Ward 2A was ever identified. We were never certain of the origin of the central line infections. I believe that some water tests revealed the presence of bacteria, which is why we added chlorine dosing and tap filters as additional control measures, but I am not sure if this was ever verified. All of them were hypotheses. Thenwhen we moved to Ward 6A, Estates realised that there were other issues with the ward and it was decided that there was going to be an upgrade of the ventilation. I do not know who decided that, but it resulted in the initial four weeks that we were decanted turning intoyears.

Problem Assessment Groups (PAG) and Incident Management Team (IMT) Meetings - 2017/2018

116. Around the time that I came into the role of Senior Charge Nurse in 2017, I began to be involved in PAGs and IMTs. As I have said above at paragraph 27, a PAG takes place if there are one or two infections, in which case we will try to resolve the issue locally. If there are more infections, then we hold an IMT.

117. In the IMTs naturally there was disagreement now and again. I do not think there was ever anything major that impacted decisions. Everybody was around the table, so if anybody wanted to speak, they had the opportunity to do so.

PAG – 3 March 2017

(**A37988938 – PAG Minutes – Ward 2A 2B RHC – Elizabethkingia miricola – Bundle 2 – Page 16**)

118. The first PAG I recall attending in relation to bacteria related to the water was in March 2017. Leading up to a PAG in March 2017, I can remember going to other PAGs because they were the smaller meetings, but I cannot remember what they were about.

119. I attended a PAG on 3 March 2017, which was called to discuss the increase of positive blood cultures in our patients. This specific organism we were discussing was called Elizabethkingia miricola. I have heard of this before; it is a bacterium in a blood culture and I believe it is normally found in water. Any patient suffering from this would need antibiotics.

120. I do not really remember much about the meeting, but I do recall that Jean Kirkwood, who was the Senior Charge Nurse, was concerned about the humidity and the heat of the ward. I am not sure exactly what happened, but I imagine that she would have escalated her concerns.

121. The minute says that "IPCT would sample water and they would get it tested". I do not know anything about this.

Water IMTs – 2018

122. I was then involved in the IMTs during March 2018 when there was an increase in infections in Ward 2A. I have been to so many meetings over the last few years that I cannot recall the ones that I attended.

IMT – 2 March 2018
(A36690451 – Water Incident Ward 2A RHC IMT Minutes 02.03.2018 – Bundle 1 – Page 54)

123. An IMT was called to discuss water contamination in Ward 2A. I can see that from the minute that I was present, but I cannot recall the detail of that meeting.

IMT – 9 March 2018

(A36690458- Water Incident Ward 2A RHC IMT Minutes 09.03.2018 – Bundle 1 – Page 60)

124. The next meeting I attended was on 9 March 2018. This was called as a follow-up to the previous IMT meeting. The minutes state that I was to speak with parents about the concerns they may have around the water supply when the taps were being replaced. I do not recall the details of this meeting but, as it is stated in the minutes that I should speak to the parents, I would have carried out that action. I do not recall that there were any issues with staff morale at this time.

IMT – 12 March 2018

(A36690457- Water Incident Ward 2A RHC IMT Minutes 12.03.2018 – Bundle 1- Page 63)

125. I attended a meeting on 12 March 2018. I can see that we discussed the fact that Stenotrophomonas was showing in the results of the tests that were taken from the taps in Ward 2A. The minute noted that Professor Gibson and I updated the patients and families. I cannot remember giving families feedback about this specific meeting. I can remember going into the patients' rooms and giving updates generally, but I cannot differentiate the occasions as it happened so often.

126. Generally, when I give updates to families it will be some written information. At the start of all the IMTs we maybe did not give out written communications but that was something we improved on. I cannot remember if I had written information for this particular incident. Any information I did give out verbally would have been followed up with a written statement from the Communications team. I would be advised what to say and I would only have said what the recommendations from the meeting would have been, but I cannot recall.

IMT – 23 March 2018

(A36690544 - Water Incident Ward 2A RHC IMT Minutes 23.03.2018 – Bundle 1 – Page 81)

127. I can see from the minutes that the next meeting I was involved with was on 23 March 2018. I do not remember this specific meeting but I can see that I am mentioned in the minutes and I asked if we could get filters for the tap in the bath on Ward 2A but I was informed that there was nothing available.

128. I am not sure if it was at this meeting, but it was decided that, as there was no filter, this bath should not be used and it would be removed. Then I asked if we could get that bathroom made into a treatment room. Further down the line this did happen.

129. I do not recall telling the families and staff about the bath not being used but it would have affected the families. The consequence of this was that we could not offer a bath for patients unless it was a baby bath, otherwise they would only be able to have a shower.

IMT – 6 June 2018

(A36690461 – IMT Water Incident Ward 2A RHC 06.06.2018 – Bundle 1 - Page 99)

130. The next meeting I attended was on 6 June. I do not recall if it was at this meeting, but I do recall a meeting when it was suggested that nursing staff were putting chemotherapy down the sink. This would not be possible as chemotherapy is infused into the patient and there is never any excess. We are strict with PPE and the disposal of cytotoxic waste. It is administered to the patient, and then the bag or syringe is disposed of in a cytotoxic waste bin. Around this time, we had an issue where there was black sludge coming up from the sinks and the sink in the drug preparation room had bubbly foam coming up. This was inspected by Dr Inkster.

131. The minute notes that a parent of a patient had informed me that they were scared to use their bath using water from the tap. I do not recall this but a parent did express concerns to me about the water from the shower. They were instead invited to use the shower facilities at Marion's House, which is the CLIC Sargent house where parents can stay whilst their child is in hospital, if they live far away from the hospital. I do recall that the parent was more comfortable taking their child there to have a shower.

IMT 12 June, 14 June and 18 June 2018
(A36690486- IMT Water Incident Ward 2A RHC 12.06.2018 – Bundle 1 – Page - 119)
(A36690521 – IMT Water Incident Ward 2A RHC 14.06.2018 – Bundle 1 - Page 128)
(A36690540 – IMT Water Incident Ward 2A RHC 18.06.2018 – Bundle 1 - Page 132)

132. I do not have any recollection of these meetings, although I can see from the minutes that I was present.

133. The minutes from 14 June 2018, note that I was printing off advice from Dr Inkster and distributing this to the patients and parents. I did this on several occasions, but I do not specifically recall doing it at that time.

134. The minutes from 18 June 2018 note that I had to compile a list of patients who had their chemotherapy delayed. I would interpret from that that the ward had been closed to admissions, but I cannot remember. Generally, it would be Angela Howat who would coordinate that because the patients would attend day care to receive chemotherapy and then come to the ward. She would coordinate that and knew the schedule of the patients coming in. I cannot remember why the ward was closed at that time.

IMT – 21 June 2018

(A36629264- IMT Water Incident Ward 2A RHC 21.06.2018 – Bundle 1 – Page - 136)

135. The next meeting I attended was on 21 June. I was concerned about the staffing level over the next two weeks as two transplant patients were being admitted in the ward during that time. We had delayed transplants, so we must have been delaying admissions, which resulted in having to schedule two transplant patients at the same time. We would normally try and space these procedures out over a two-week period each, so that we can deliver safe levels of care and have appropriate nurse staffing levels. I would have had concerns about staff levels as transplant patients can become very unwell and need an increase in nursing care. I vaguely remember this meeting, but I cannot remember why we closed admissions at this time. I do not remember anything significant about thismeeting.

IMT – 17 September 2018

(A36629315 - Minutes Ward 2A IMT 17.09.2018 -Bundle 1 – Page 169)

136. From looking at the minutes, the next IMT meeting I was present at was on 17 September and it related to positive blood cultures in the ward. I do remember this meeting because I mentioned that staff had approached their unions for advice that we were nursing patients in a ward that had so many infections. I do not know what advice they were given as it would have been confidential. I personally did speak with the union but I cannot remember if it wasspecifically around this time. My concern was whether the environment was safe to treat patients and whether we were putting patients at risk by continuing to treat them in this environment with increased infections and all the building work and investigations going on. I phoned the union for advice, but I cannot remember what was said during the phone call. I do not think there was any action taken as a result of me or any of my colleagues contacting the Union.

137. I also remember a note being read out from Professor Gibson. She could not be there as she was in London. She expressed her concern and wanted

assurance that the unit was safe and that, by continuing to look after the patients in the ward, we were not putting them at risk. I agreed with her concerns.

138. At this time staff morale was low. There was a meeting held in the TCT social space with management and staff. I was not at that as I was on a day off, but I think staff expressed concerns to the senior management team. I do not think anything specifically happened as a result of these concerns but we were ready to move to Ward 6Aanyway.

IMT – 25 September 2018

(A36629324 – Minutes Ward 2A IMT 25.09.2018 – Bundle 1 - Page 190)

139. The next meeting I attended was on 25 September. I remember thismeeting because it was the September weekend and we were moving wards. I see from the minutes that I was in the process of informing the remaining outpatients of the decant details, since the decant was due to take place the following day.

140. I remember telling the parents about the imminent decant of the ward. I spoke to families on a Friday, late at night. A Senior Charge Nurse from day care helped me and then Jen Rodgers came to the ward to assist. We spoke to all of the families present.

141. I do not remember any families being upset specifically that night, orthere being any other issues. There were other times when I gave updates the families got upset but not this time.

142. This minute mentions that I requested that Estates should carry out any additional works and HAI SCRIBE whilst 2A and 2B were empty. I was to formulate a list for Estates of items requiring to be fixed, for example doors, windows and TVs, which are difficult to arrange to be fixed with patients in the rooms. This was all eventually done during the larger refurbishment of Ward

2A. I was probably trying to make it clear that I wanted all of these things fixed while we were decanted, so that there was less disruption when we moved back in.

IMT – 5 October 2018

(A36629290 – Minutes Ward 2A IMT 05.10.2018 – Bundle 1 – Page 199)

143. I can see from the minutes that the next meeting I attended was 5 October 2018. We were in Ward 6A by then. At this meeting we discussed the possibility of implementing some of the measures in Ward 2A that have been recommended for waterless Intensive Therapy Units (ITU) and what could realistically be implemented in the paediatric BMT setting. One of the things recommended was to remove all of the trough sinks on Dr Inkster's recommendation. She advised that the more water outlets you have, the more we were putting the patients at risk. To me it sounded like the safest thing to do.

144. The trough sinks are the large, deep sinks that you would get in theatre, so you can scrub right up to your elbows. The surgeons use them before they do any surgical procedures. We had them in Yorkhill in the BMT rooms. In Ward 2A we had them in the anterooms for the BMT rooms. Then Dr Inkster advised that we had to reduce the water outlets. At that point, two of the sinks were problematic. There was black sludge in one sink in the anteroom of the BMT rooms and there was a further sink in the treatment room which had bubbles coming from the drain. Dr Inkster recommended that we remove those sinks. We would still have hand gel before entering the room, and we would still have a wash hand sink in the patient's bedroom if we had to wash our hands. Professor Gibson did not agree with Dr Inkster about the removal of the sinks as other BMT units would not have them removed. However, Dr Inkster recommended that this was the safest thing to do for the children. As she is the expert in that field, I trusted that she was doing the right thing for this patient group.

145. “Waterless” did not mean the removal of all sinks but trying to reduce the use of water. Some things cannot be reduced when trying to go waterless. In the patient rooms, you still need a wash hand sink, a toilet, and a shower. They all had additional filters put on them. The trough sinks were removed from the anterooms and the sink in the prep room and treatment room were replaced with normal wash hand basins, so that was one less risk. There has not been any issues since we moved back to Ward 2A.

IMT – 11 October 2018
(A36629306- Minutes Ward 2A IMT 11.10.2018– Bundle 1 – Page 204)

146. I see from the minutes that the next IMT I was at was on 11 October 2018. The minutes state that I will attend a meeting to discuss the literature regarding a waterless ITU and will feed back at the next IMT. It was decided at that meeting that we could not completely go waterless, but Dr Inkster had recommended that we could remove the trough sinks. As noted above, Dr Inkster and Professor Gibson had a difference of opinion about this course of action.

IMT – 19 October 2018
(A36629317- Minutes Ward 2A IMT 19.10.2018 – Bundle 1 – Page 208)

147. The next IMT I attended was on 19 October. The IMT discussed the possibility of having the bathroom on Ward 2A that was no longer being used, changed into a treatment room. We did not have our own treatment room; it was a preparation room/shared room that we made up for the drugs, so this seemed like a good idea at the time. I contacted Ian Powrie and requested the specifications and he approved the design. Now that we have moved back to Ward 2A, that bathroom is now a treatment room and is being well used.

148. I do not remember there being any more IMTs until 27 December 2018. After the move to Ward 6A, between September and December, things seemed to settle for a few months. Then the IMTs recommenced.

Communication: Water issues

Patients & Families

149. Most of the information that we were giving to parents was coming from the IMTs. We would get information from management at IMT meetings and, if there was information to be given out to families, the Chief Nurse and Jamie Redfern, the GM at that point, would come on site to speak to them.

150. We would have to wait for the correct communications to come from senior management after an IMT meeting had finished as I could not update anyone until I had received them. Sometimes that could take a while. That was something we fed back on because it could be four or five o'clock on a Friday before we could update. I think that this did improve as time went on. Once the communication was received that would instruct us what to say to the patients and families.

151. We would verbally update the families and then hand out a letter from the communications team so that they could refer to it. I would be emailed that, or the Chief Nurse, or GM, would come and deliver that. If a family asked a question that we could not answer locally, the Chief Nurse and GM were happy to speak to the families directly. If I had any families who needed any more questions answered, I would contact them and they would come to the ward. For example, I was aware that families were concerned about the increase in infections and I escalated that. When things were happening more and more each week, the Chief Nurse and the GM would come to the ward more often and they would help issue information to the families. Additionally, the Microbiologist, Dr Inkster, would attend the ward; she was very good at speaking with the families if they had concerns about certain infections and she also provided reassurance over the ward move. If any children developed infections whilst in hospital, the consultant and possibly the Microbiologist would speak to the families.

152. When instructions started to come out that we should not drink the water, or when rooms were closed, I suppose it was a bit concerning for the patients, but I believed that IC and Microbiology were providing the best guidance to keep the patients safe. These are professional, experienced people, so I would trust their advice and comply with their requests. This might include what would occur if a room needed to be closed, if we allowed water sampling, or if tap filters were installed. I would also make sure that families received updates by passing on any letters that came from the Communications team and by going into their rooms and speaking with the families, updating them on any information we had.

153. At the time, information would be passed to us in different ways. Generally, if it was something that needed actioned straight away, there would be a phone call followed up by a meeting. Then, probably, as the process went on, there was written information, usually for staff, in the form of a A4 sheet of paper, for them to pass on between each shift, and that would be added to the safety brief. There would generally be the same updates for the families. There would be one for staff and one for families, and that was the same process as matters progressed. If I was giving the families an update, it would have been requested by the Chief Nurse, Jen Rodgers. **A38662234- Update for parents on cleaning dated 13 June 2018 – Bundle 5 – Page 144)** is an example of information being given to parents. I cannot remember handing that out, but the information contained in it is correct. That is when HPV cleaning was taking place and when we changed the taps. Estates were also looking at the drains and they took a drain apart, and I think that is why they asked whether we were putting chemotherapy down the sink because there was a concern that there was something wrong with the drains. At that point, Estates and IC wanted to ensure that nothing else was being poured down the wash hand basins and a sign was developed. **(A39123918 – CWH8 – referenced as Poster for hand wash basins within the index – Bundle 5 – Page 143)** is an example of this. We have since replaced that sign and made it a bit more

child-friendly, but that information is still in place at the sinks even after the refurbishment. The signs in the unit are above the sink, exactly where you would be washing your hands.

154. I was instructed to tell the families that we could use the tap water, but only from the pantry or the parent's kitchen. The sinks in the patient rooms were for handwashing only.

155. I do not recall when we advised the families that the water was safe to drink, but I remember having a conversation and handing out an update about the water. Some were a bit nervous and some quite happy. I think they would have been nervous with all the changes but, everyone seemed quite accepting of it. I trusted the advice given to me and I would never advise them to do something that I did not think was safe.

Staff

156. As time went on, staff were asking questions about the water and the infections. I know that Jamie Redfern came to the ward and spoke to a group of my staff as morale was low, although I was off at the time. We were getting regular updates. Central line infections were, however, still increasing and we were not getting to the bottom of them, staff were concerned. It was around that same time that staff were approaching their Unions.

157. As far as I am aware, the concerns were about the environment in which we were looking after the children. I recall that I once had three members of staff absent due to illness. Staff members revealed that they were absent from work due to work-related stress in later meetings with HR. I was unable to help them with this as a manager, but I made sure that HR were aware. The frequent ward moves added to the strain and pressure on our employees.

158. After all the filters were added to taps and the water tanks had been cleaned with chlorine dioxide, we were told that the water was wholesome, clean, and safe and that we could use it.

Closure of wards 2A/2B and move to ward 6A and 4B – September 2018

159. I was involved in the IMT meetings when the decision to relocate from Ward 2A to Ward 6A was being discussed, but I had no input as this decision was taken by those more senior than me. I believe that this was around July 2018. The recommendation from the IMT around this time was that we would decant.

160. Estates had an increase in work to carry out in Ward 2A, therefore, it was decided that it was safer to move the patient group to allow them to carry out the necessary work and this allowed us to carry on caring for the patients. These works included gaining access to rooms and checking sinks and drains. Initially the plan was to relocate to Ward 6A and Ward 4B for four weeks to allow this work to be done.

161. There was a planning document regarding the decant of the patients and this was followed closely to ensure that all necessary actions were covered, along with risk assessments which had to be completed. The document would usually be completed by the Service Manager, Melanie Hutton, but she was off on annual leave, so Lynn Robertson helped us. We were planning the allocation of the patients and how operationally we were going to move them and where the furniture was going to go, as well as managing the transfer of medications. We now have experience of moving wards, having moved from Yorkhill to the RHC, from Ward 2A to Ward 6A and then back to Ward 2A.

162. The risk assessments and the updated SOPs were completed by our Quality Manager. She was leading on that. One of the Senior Staff Nurses, April McDade, and I were involved with the Service Manager in relation to the patient pathway for what we would do on the day of the move.

163. Angela, the Senior Charge Nurse from Day Care, the Lead Nurse, the Chief Nurse, the GM and I would meet up and go through all of the actions. We used the same document to move back to Ward 2A. I would imagine that this would have been classed as a Risk Assessment. The document was shared and actions allocated to everyone. I cannot remember who did what, but if I was shown the document; I would be able to go over who had carried out which actions.

164. When we moved to Ward 6A we continued to follow the patient pathway but we had to adapt it. Ward 2B (day care) was in 6A with us, so we were all in the one unit together. We had to work out which areas would be used as waiting areas and rooms. Angela Howat would have led from that side. There were some challenges, especially since CDU, where on occasion patients would come into the hospital, was in a different building. Also some patients were going back and forth to theatre in the RHC, but we managed to work round it.

165. My understanding was that Ward 2A closed due to water problems, issues with the sinks and the drains. In addition, Estates needed access to carry out further investigations with the drains but, at this time, there was no mention of the ventilation system.

Suitability of wards 6A and 4B

166. I am not aware of the reason why Ward 6A was chosen. The reason Ward 4B was chosen was because it was thought to be the safest as it had the ventilation system that was best for our transplant patients. Children would receive a BMT in Ward 4B and this then led to the medical staff requesting all other patients to be decanted next to Ward 4B. This would allow for ease of looking after the two patient groups. Ward 6A was recommended, but I do not recall whether or not the consultants were consulted about the location of the move.

167. I was involved in a walkthrough of Ward 6A with Susie Dodd and Teresa Inkster from IC. I needed to start planning: how we were going to move the

children safely; patient placement, i.e. where the Ward 2A patients would be accommodated in the ward and where day care would go; where our stock was going to be: where we were going to keep our drugs: and where the emergency trolleys would be located. It was an operational walkabout to try and start planning for the children's care. We did not have as much time to prepare in comparison to previous moves I have been involved in. The staff in the wards into which we were moving, were also packing up to leave and this resulted in it being quite difficult for us to gain access.

168. IC wanted to have a look to see if the environment was safe. They did highlight that changes needed to be made to make the environment safe for our patients. There was some minor Estates and Facilities work being done before we moved over, which was organised by IC, for example fixing of extra wall brackets to allow hand gel to be displayed in the corridor.

169. There was work to be carried out to make the new wards suitable for our patients, lots of additional cleaning along with some Estates work. Estates would do all the building work. Facilities would do all the additional cleaning, organise HPV and, at the time, Teresa and Susie would have checked the area to make sure it was suitable before we moved over. I believe, on the day of the move, myself and Lynn Robertson, the Service Manager, carried out a walkabout before we started moving patients ensuring the ward was ready to receive the patients. Everything was in place, and then it was my responsibility to make sure that everything was moved over and that no patient-identifiable documentation was left in Ward 2A.

170. We had involvement the Children's Charity who worked with us and made the environment in Ward 6A more child-friendly. We did initially think the decant was only going to be for 4 weeks and I thought that Ward 6A was a good safe environment for our patients. Once all the Estates work and deep cleaning had been completed in Ward 6A, I felt it was suitable and was safe for us to deliver patient care. I liked Ward 6A. It was bright; it had better visibility because the

patient rooms were off a long corridor. Due to it being a temporary short term move I felt that it was a safe environment for the children.

171. Ward 6A was not built with the intention that paediatric children and teenagers were going to be there, so we did not have the same facilities. We had our teenage cancer worker, Ronan, and he would try and carry out activities at the bedside organise Facebook groups, but it was not the same as having the TCT social space.

172. There was no playroom or parents room on Ward 6A. After a while there were some complaints and feedback from the families about this. I think there was a face-to-face feedback session with the families and Jane Grant and John Brown attended. MSP Jeane Freeman also visited the ward and spoke to families. After that, a parents' kitchen and the playroom were developed. I do not know if it was from their involvement, but certainly, after they visited, things seemed to move quickly. Once in place, the families were happy with it, and then when we had to implement measures in respect of COVID, we had to stop the use of this space. I do not even think it was in use for that long, which is a shame.

173. There was a lot of planning involved in the move. Everything had to be updated, including risk assessments locally and SOPs. We had to work out which rooms would be used to administer chemotherapy and which rooms we would give lumbar punctures in. One concern that most staff had was the distance for moving our patients to intensive care or to theatre if they were unwell. Ward 2A is one floor above the intensive care unit. If there is a clinical emergency, the crash page goes off, and your patients have to go to intensive care. That does not take long when there is only one floor to cover. Ward 6A was in a different building from intensive care and on the 6th floor and we had to take lifts. Staff had some anxieties about the distance, so we did some planning and had a mock run of the route. This involved walking with staff and taking a cot, then covering the route from the wards to the intensive care unit. This allowed us to come up with a workable plan of how to deal with any

eventualities and we were as confident as we could be. The Service Manager signed the plan off, along with the Resuscitation Officer, and they came to the ward to assess the situation and ensure that all these things were safe. We were provided with an extra resuscitation trolley. The fire officer came to the ward, updated the fire plans and spoke to staff. That would have been on the planning document. If we had had anxieties or concerns, that would have certainly been raised to the Lead Nurse or Chief Nurse.

174. The intensive care teams, along with theatre staff, also visited and familiarised themselves with the new ward. We made sure everyone knew the planned route in case there was an emergency and ensured that everyone knew the quickest and safest route back into RHC. Making plans like that helped us. SOPs and protocols were amended. One thing we did was, instead of sending patients on our Tuesday list to theatre in the RHC, we started performing some less invasive procedures in the ward. Two of the rooms in 6A were used for theatre. This enabled the children to remain within the ward and not have to travel from theatre all the way back into the children's hospital. The theatre equipment was relocated up on Ward 6A and we had a theatre recovery room. Patients would only have to go to the RHC if they needed more invasive surgery, a scan or to go to Intensive Care Unit.

175. Patients and families had concerns about having to share the lifts with adults in the hospital, some of whom smelled of smoke. That was escalated at the time, and the workaround was that colleagues in Estates closed one lift off so that only Ward 6A patients could use it. There was a barrier around it, and the security would coordinate the patients going up and down. If we had a patient going down, we would phone security and they would meet the family and the child at the entrance of the lifts and take them up and down, so they did not have to share with anyone else. It took a little bit of time to resolve that issue and we had some complaints and feedback, but it certainly was able to be resolved eventually. As I have said, we were only supposed to be there for a short timeframe and we had to take feedback and resolve issues as they arose.

Ward 4B

176. The layout of ward 4B resulted in the rooms we were allocated being at the end of the ward. I found the staff very helpful and the Senior Charge Nurse helped us settle in and gave us storage space for our stock. The staff allocation was one nurse to every patient and this made me feel confident that the children were receiving good care.

Impact of Closure of ward 2A

Patients and Families

177. When we moved wards from Ward 2A to Ward 6A, some of the families struggled with all of the audits, investigations and additional cleaning we were doing. If there were any complaints made, I would be informed and I would have this investigated. It was the disruption that caused the most issues. Their children had cancer and we had increased infections in 2A. The ward was having various investigations carried out by Estates and Facilities colleagues, and there was extra cleaning. That in itself would have been stressful for the families. We then told them that we were moving over to an adult hospital, which does not really have any provision for children. We told them that we were moving for four weeks: we were there for over for three and a half years.

178. Then we moved from 6A, to CDU, then from CDU back to 6A. We then continued to update the families that we were going to be moving back to 2A soon and the date kept getting pushed back. There was also negative press in the media, so I can understand why some of the families were upset.

The Ventilation System

179. My knowledge of the ventilation system in Ward 2A is limited. My understanding is that it must be of a high specification because of our

children's weaker immune systems. They receive chemotherapy, making them prone to infection. Unfortunately, I don't have any technical knowledge, but I am aware that the description of the newly refurbished ventilation system in Ward 2A is state-of-the-art.

180. I was not aware of any issues with the ventilation system in Ward 2A before we moved to Ward 6A. It was when we were transferred to Ward 6A that we learned there was going to be an upgrade to the ventilation system in Ward 2A, while we were decanted, and this was going to extend our decant on Ward 6A. I cannot say exactly what changes have been made but I believe that the system we have now is the safest ventilation for our patient group. James Huddleston, who was the Capital Project Manager, attended meetings with us when we were in Ward 6A and explained this to us. At these update meetings, he was briefing everybody on what was happening with Ward 2A, what was happening with the ventilation, and at the update in respect of the builders. Then we made a video for the patients and families moving back over at 2A, and James did the technical update on that, which I understood. I trust that it is one of the best ventilation systems because he explained that to me.

Extension of decant

181. I cannot remember the exact details, but families and staff were told that there would be delays in returning from Ward 6A to Ward 2A due to the ongoing work to the ventilation system. At that point we were not doing any IMT meetings; that had all stopped. We received updates through the re-mobilisation group led by James Huddleston and Emma Heggarty, both from the Capital Project Team. My colleague, April McDade, was covering for me on maternity leave and, when returned from leave because she had been leading on the ward move, she continued to do that. We would have been updated through that group and she would have attended and updated me.

182. The date for moving back to ward 2A kept getting pushed back, and then COVID came along and there were outbreaks amongst the workmen. Then

other challenges came up, but that would have been discussed at the re-mobilisation group which was scheduled in the calendars. It was monthly, although it increased as we prepared for the move back to Ward 2A.

Issues with the ventilation

183. I was first aware that there was a potential issue with fungal infections when Kathleen Thompson, the Lead Nurse, informed me that there had been some fungus found throughout the campus, although I was not told at the time that it was Cryptococcus. I was asked to update the families about this and to inform them that, as an additional measure, we were installing mobile HEPA filters in the ward. Estates brought the HEPA filters to the ward and April McDade and I cleaned them all and put them into the rooms.

184. I know that we had chilled beams in Ward 6A and we had some issues with them. I think that there was a tube in the chilled beams that was leaking condensation and it had to be replaced I do not know the technical term for this. I also understand that some of the chilled beams were dusty. This led to the cleaning of the chilled beams being increased because we were a high-risk area. Dr Christine Peters from Microbiology advised that we carry out additional cleaning. This was a contingency which was put in place. I cannot remember the timeframe for this, but I resulted in another workaround for Estates to complete the work. There was a lot of building disruption whilst we were in Ward 6A.

Environmental Issues on Ward 6A – 2018/2019

Cryptococcus – December 2019

185. In December 2018 I attended an IMT on 27 December 2018**(A36605180-IMT Cryptococcus 27.12.2018 – Bundle 1 – Page 250)** which was to discuss [redacted] cases of a very rare fungus, Cryptococcus which had been

found on the campus. As I mentioned above, as a result of this HEPA filters were installed in Ward 6A and I had to speak with the families about the situation. I was given communication lines from the Lead Nurse, which spoke about the fungus and the additional measures we were putting in place. It said there had been two incidents of fungus in the QEUH campus, therefore, the mobile HEPA filters were being installed as an additional measure. It was on a sheet of paper which I then handed out to patients and families.

186. The installation of the HEPA filters on the ward impacted our ability to do our jobs because it diverted us from patient care, having to clean them and place them in rooms. Having recently moved wards, this resulted in further disruption for patients and families.

187. I do not remember Cryptococcus having a direct link with the ventilation. I remember that around this same time, there were reports of mould in the showers in Ward 6A and we found that there were problems with the seals in the showers, which needed to be replaced. This resulted in significant building work being carried out, access to rooms and having to relocate patients again.

188. Microbiology and IC advised that this work could not be carried out with our patient group in the ward. We tried to move the patients to one end of the ward and close the other, but that led to bed pressures. Ward 6A was two long corridors, so you could move the patients to one corridor and close the other one. That is what we tried to do initially, and then either Teresa or Susie advised that an alternative approach was required. Their concern was that this disruption could lead to fungal spores in the air, so at that point the safest thing to do would be to decant from Ward 6A to CDU.

Decant to the Clinical Decisions Unit (CDU) – January 2019

189. An instruction came from the IMT that the safest thing to do was close Ward 6A and move the patient group. We moved down to CDU in RHC. We did not

have the same amount of time to plan this move, so it was coordinated in a short space of time. This was not ideal as we had only just started to settle into Ward 6A and then we had to move again. Moving wards is always a difficult thing to do. We moved into Ward 6A in September 2018, and then decanted to CDU at the start of the year, in January 2019.

Impact on Patients and Staff

190. Families were already anxious about the extended decant to Ward 6A. When the additional move to CDU, and then the subsequent move back to Ward 6A, happened, we began to receive complaints about the moves. I can understand why families were concerned and made these complaints; there was a lot of movement in a short period of time. Some families were not happy about all of the moving, but I do not think there were complaints around the communications that related to the moving. Staff were put under a lot of stress, as everyone was, with all of the ward moves.

191. I would pass any feedback and complaints from families onto the Lead Nurse or the GM or, if it was an IC concern, I would contact Teresa Inkster. If it was related to treatment, then I would advise the patient's consultant. I certainly would not try and resolve anything if it was technical or IC issues. I would contact the appropriate colleagues to speak to the families. When the Chief Nurse and GM arrived on the ward with additional information, I would accompany them while they spoke to the families.

192. I know staff were worried about the presence of Estates and IC on the ward and they did not know what was going on and why there was another move to the CDU. It is physically demanding moving beds and, even with the help of porter, staff continued to move the patients and all their belongings and their medications. The housekeepers were packing up all the treatment rooms and all of the items and medications that we need to look after patients on a daily basis.

193. During the decant, we needed additional staff since we were working over two wards. Staff members were coming in when they should have been off. Initially, when we thought that the decant to 6A was only going to be for four weeks, I was relying on my staff's goodwill and they were happy to help. Staff also came in on bank overtime and extra shifts. When we had staffing pressures and I would take it to the safety huddle at 0800h. and 1500h and we would be recorded as unsafe. Sometimes we would get back-filled with a nurse from the hospital, but generally we are the core group of nurses with chemotherapy skills, so we cannot always get support from the rest of the hospital, as nursing staff would not have the requisite chemotherapy skills.

194. Initially, when we first moved, I was not concerned about patient safety on Wards 6A and 4B. We were then advised that there was some fungus in the campus, we were exploring the possibility that there was potentially something wrong with the shower seals. We were putting in HEPA filters in the bathrooms; and then Estates and Facilities had a presence again. The patients again were having to move rooms to allow estates colleague's access. It felt like we had not really achieved much in moving to Ward 6A.

Ward 6A - IMT – August 2019 – November 2019

195. Between January 2019 and August 2019, there were concerns about the fungus and that resulted in the decant to the CDU. I cannot recall there being any concerns about the water. I do remember attending a lot of IMTs, but I would not be able to differentiate between them all as there were so many.

196. We had the decant to CDU early in 2019 and, following the return to Ward 6A, we had a closure to admissions later on in that year, while Estates were carrying out investigations and works. It was deemed safer to manage the smaller in-patient group and any new admissions would go to Edinburgh or Aberdeen if they could do so, and we would prioritise working with a smaller group. This resulted in new patients who received a diagnosis being looked after in other centres. As a result, we did not have bed pressures and added

activity at a time when we did not really know what was going on, when building work was underway and when rooms might have needed to be investigated. Whether the ward should be reopened would have been discussed at the IMT meetings. We then reopened admissions again in November 2019. I do not recall that existing patient care was ever affected.

197. All the communication surrounding this came from the IMT.

198. There were various IMTs throughout 2019 that I attended where the closure of the ward was discussed.

IMT – 14 August 2019

(A36591626 – IMT Ward 6A Gam Negative Blood 14.08.2019 – Bundle 1 – Page 343)

199. After December 2018, this was the next IMT meeting I attended. At this meeting, I spoke about the T3 machine which is the machine used to clean the floors. I had received complaints from families regarding the floor cleaning. It turned out that the machine being used was faulty. Once I reported this to Facilities someone came to the ward and the matter was resolved.

IMT – 6 September 2018

(A36591637 – IMT Ward 6A Gram Negative Blood 06.09.2019 – Bundle 1 – Page 354)

200. The next meeting I attended was an IMT meeting on 6 September 2019. At this meeting I informed the IMT about a change in practice regarding dressings for line care. These were called Biopatches, a chlorhexidine-impregnated dressing which the children wore for the first three weeks post-line insertion, previously they remained in-situ for 48 hours post line insertion. We still use these dressings. The current position is that some children like to keep them on throughout their treatment, and it is fine to do that; it provides added protection.

201. We introduced this change as a result of a peer review from Great Ormond Street Hospital. It was an improved dressing at the time. We had previously used a IV3000 dressing. It was good practice and we wanted to replicate that.

202. There were more IMT meetings that I attended, but I cannot recall anything I did at them. The IMT meetings have all merged into one and I am finding it hard to recall incidents precisely. It is difficult for me to remember. I can visualise speaking with families and handing information out, but whether it was in Wards 2A or 6A is hard to differentiate. There were so many issues and I had to deliver so much information.

Effectiveness of IMTs

203. I did feel that the IMT meetings were effective because different groups with different specialities could meet and discuss what needed to be done and what actions were needed. If you needed a deep clean of the ward and the facilities were there, they would coordinate that straight away. If you needed any Estates work done, Estates were there and they would arrange that straight away. If patients needed to be moved out or rooms needed to be closed, I could organise that. Microbiology would advise what they thought was going on; and IC were there. Having all teams around the table means it is quicker for getting things done.

204. I do recall that Dr Emilia Crighton took over from Teresa Inkster as Chair of the IMT at one point. I remember Dr Inkster being there and questioning why she was no longer Chair.

Current Situation in ward 2A

Description of Ward 2A from March 2022 to present day

205. We returned to Ward 2A in March 2022, after all of the works had been completed, including upgrading of the ventilation system, and the ward is certainly better than it was previously. I believe that the ventilation is one of the highest specifications available. We now have a pharmacy room, which we did not have before. Since we have moved back to Ward 2A, one of the patients was feeding back and saying how good it was to have the TCT social space again. She was saying that she does not mind being in hospital now because we have really good facilities, whereas in 6A she felt isolated. It is much better that we now have this service again.

206. The children have a playroom and, since moving back from Ward 6A to Ward 2A, we now also have a "tween room" which is for ages 8-12. This was lacking before and was created following feedback from families and some fundraising which was carried out by two of our previous patients. The feedback was addressed and the new tween room is being well used.

207. We now have airlock doors in the ward and we also have a new treatment room. This treatment room was previously a bathroom; however, it means that we can carry lumbar punctures on the ward. The drug preparation room is now of a higher standard. It has cupboards and other facilities that we requested, as they were missing initially. It is certainly much better.

208. There is one Metaiodobenzylguanidine (MIBG) suite where we can deliver high-dose radiation to patients. MIBG is a radioisotope. It is the name of the drug and it is a lead-lined room. When the patient receive this drug, they are excreting high doses of radiation as each day radiation doses reduce. They have to be looked after in this room, to reduce exposure to other members of the public and, if nursing staff go into the room, we work behind a lead shield, and we try and do minimal nursing. There is a camera in the room that we can access from the nurses' station. Only a radiation-trained nurse has access to the room, so we carry radiation monitors, and they are analysed monthly. That is something we did not have before, and it means patients now do not have to go to London and receive that treatment.

209. All the rooms except one, are Positive-Pressure Ventilation Lobby or Isolation rooms they had an upgrade in their ventilation. PPVL means the pressure coming out of the room is positive which makes it safer for our patient group, and we have one negative pressure room. Negative pressure rooms, also called isolation rooms, are a type of hospital room that keeps patients with infectious illnesses isolated. Dr Teresa Inkster from Microbiology recommended that should have a negative pressure room for infectious patients and that is the room that we currently use if any patients have COVID. If I have any concerns or worries about which room to isolate or nurse the patients in, I phone IC. We have guidelines on which rooms we can use for patients, but I always also like to seek guidance from IC. I can also consult Estates colleagues if I have any questions regarding the ventilation.

210. I think Ward 2A is a good ward and it does have good facilities. Now it has even better facilities since our move back from Ward 6A earlier this year. I think it is state-of-the-art.

Additional Infection Prevention and Control Measures still in place

211. Although we have moved back to the newly refurbished Ward 2A, some of the control measures mentioned above are still in place.

212. Enhanced supervision is carried out every four weeks. We also continue to carry out vent cleaning, which takes place every four to six weeks. We are starting again this week, so that is the domino effect, moving all the patients out of their rooms and giving the external company, Correctair, access. They clean the vents and the room then gets a Facilities clean. HPV cleaning happens every six months. The first time is happened since we moved back was September 2022. The Service Manager advised that it was going to be something that we were commencing. Staffing levels and the transplant schedule were planned to accommodate the HPV clean. This safely could be accommodated in September, so it was carried out then.

213. It is additional work for staff, but we manage to do it all safely. It is a different company that we are using now than pre-decant. They used to have to use a machine. Now they come in and spray it locally, so it is easier. This process has just been completed again in March 2023.

214. We still do routine water testing, and the results are passed back to IC. IC must analyse their results, but I am not involved in that, nor do I receive the sampling results. I would make sure that they get access to do their job. Generally, if any samples needed to be repeated, IC would ask us to check the filter and close the room. They would come and do the extra checks and we would work with them to do that. Enhanced supervision covers this. With the water testing, the same company that change the filters on the taps and showers also carry out routine water sampling.

215. All the checks are still ongoing as an added assurance because of everything that happened, and it is the same with the vent cleaning. I know we clean more than the manufacturer's recommendation, but perhaps it is because of a reluctance to change the process as it is working, and the infections have continued to be at a reduced level. Although it is extra work, if it is keeping the patients safe and there are no infections, then I can understand why nobody would want to change it.

216. Currently, we are still asked to close rooms by IC from time to time because they still need to swab them. IC will tell us to close a room if a patient has something that is found to be suspicious or concerning; they will come to the ward and do environmental swabs and complete checks of the room. The water sampling is still ongoing, and I believe it is happening monthly.

217. There continues to be filters on the taps and they are changed every second month by DMA Canyon. They keep us updated on what they are doing. They will ask if there any rooms that they should not access or if there are any issues. If a filter falls off, we would just call DMA Canyon, or go through

Estates. It is the same core staff group within DMA who manage these issues. They are very good, they know about PPE and are quite visible on the ward quite often. IC would not do check-ups on the filters but, if something was noticed whilst washing hands, it would be raised. I do not have to carry out any other additional checks with the filters.

218. We advise families that they can drink the water. I drink it myself. The filters are there as an additional safety precaution. We continue to do routine water testing and the results are fed back to IC. If anybody has concerns, we would act on them.

Current Issues and Concerns

219. Currently, there are no ongoing concerns about the environment amongst the staff. When issues arise, these are acted upon. For example, there was a recent situation where vents became dusty. I escalated to IC who began to investigate this.

220. Since our return from Ward 6A to 2A there have been some minor problems. We were having issues with doors alarming and some leaking toilets, but this has all been rectified with Estates. We work regularly with Estates around cleaning and other day-to-day matters. If there is a risk with moving the patient, for example for the vent cleaning to take place, we would wait until the patient was getting discharged. We work on a case-by-case, risk-by-risk basis.

221. The standard of cleaning in the ward since we returned here has not changed. We have more areas that need cleaning, hence the extra time allocated. I do not have any concerns with the domestic cleaning and. if I did, I would raise it with the domestic supervisor.

222. As far as I understand the frequency of the cleaning means that isolation rooms get cleaned twice a day and the other rooms once a day. This is a level of cleaning I am happy with.

223. There have been no ward closures since we moved back in March. I have not attended any IMT meetings. I do not think I've attended any PAGs.

Current situation: Infections

224. I do not have any concerns that patients in Ward 2A are currently at risk of infections relating to the water or ventilation systems. I do not think anything has been found in the water testing. The filters remain on the taps and we monitor our central line infections every month. The data is really good in relation to that. Looking back from when we first moved, we maybe only have one or two line infections per month, some months there are none.

General Communication

Department Communications

225. As a department there are many opportunities to meet and discuss any concerns we may have. There are handover meetings and review meetings between the team and Microbiology and IC. Along with daily communication, there are regular Multi-Disciplinary Team (MDT) meetings in which our unit is involved. We have an MDT meeting if a patient is going home, or a patient has a particular issue or problem and requires input from various disciplines. For example, there would be someone from nursing, medical, physiotherapy, pharmacy, and an occupational therapist. All the wider teams involved in that patient's care would have a discussion about the patient.

226. There is an oncology on treatment meeting, along with a haematology on treatment meeting. These are meetings where all patients who are receiving treatment on the ward or in day care are discussed and they are held weekly.

Board Communications

Staff

227. The process for communication between the Board and staff would be through core briefs, IMTs and emails. There were also occasions, when Jane Grant and other Board members did come out and do walkabouts when we had issues on Ward 6A and they did listen to staff. A staff room was provided after staff fed back at this visit. They did not really come out when we were in 2A; it was after we had moved to 6A and 4B.

Core Briefs

228. The method the GGC Board uses to communicate information to staff throughout the NHS is through the core brief issued by the Communications Team. The information in the core briefs can be varied. It contains Board-wide issues and communications and updates, for example, in relation to flu vaccinations, COVID, and generally what has been happening in GGC, for example, there might be information about staff awards, congratulating staff on innovations, or there might be information about concerns, like cladding. They are sent via email. I do not know how often, but definitely at least once a week, on a Friday. Not all staff have the same ability to check their emails and read the core brief as they are not office-based, or do not have always have time in light of busy shift patterns. I have regular access to my emails and I encourage staff to check their emails when they can. If I want to communicate with my staff, the best place to do it is at the safety brief before handover as all nursing staff attend.

229. I am not sure how effective the core briefs are. I personally also have a staff WhatsApp Group. If I want any of my staff to see particular information on the core brief, I put it on a WhatsApp group, which is encrypted, and it is more likely that it will be read.

Building and Environmental Issues

230. With issues related to the building and the built environment within the hospital, I had exposure to communications from the Board. I would read the core brief, and I would have exposure at IMTs. I received updates on issues like the cladding. That was in the core brief recently. I read the core briefs and staff are advised to, but I do not know how effective the communication has been. I think that the Board could make improvements on how they communicate to staff, maybe through social media or similar. Currently, that is something that people have access to, more so than work emails.

Infection Outbreaks

231. In respect of Board communication in relation to infection outbreaks within the hospital, that would be through IMTs. That was effective. Core briefs would also have information on any issues in GGC, but again, it is not guaranteed that all staff will always regularly read their emails.

Treatment

232. In respect of patient treatment, the Board would not communicate about this. Any information would be more general and might give information on how busy emergency departments have been, or whether there has been an increase in COVID. There would not be updates on something specific in relation to a patient.

Communication with Patients, Carers and Families

233. During the period that there were issues related to the building, the built environment and within the hospital, any information from an IMT meeting that required to be communicated to the families or staff would be communicated to staff verbally or via an email. Staff would then pass that information on to families verbally and then it would be followed up with the families in writing, for example, in a letter. If the families had further questions and the ward staff were unable to deal with these locally, it would be escalated to either the Lead

Nurse, the Chief Nurse, Jen Rodgers or Jamie Redfern the GM. When we were in Ward 6A the Lead Nurse would have been Gael Rolls or Kathleen Thompson.

234. An example of a document I would hand out to families is **(A39123885 – Update for parents on ward date 6 June 2018 – Bundle number 5 – Page 142).** Somebody from the communications team would draft it, and then they would send it to the Board for authorisation, and then I would receive it via the Lead Nurse or Chief Nurse, directly in an email or asking me to hand it out. I would then confirm in an email or a phone call that I had updated the families. We do not have as many updates now because we do not have as many issues. In terms of the effectiveness of this communication method, I do not know if there was any better way to do it, but that was the process we used and it seemed to work.

235. As I have mentioned, initially there were delays with this information coming from management so that we could speak to the families. This improved as time went on, following feedback from staff and families.

236. As the situation developed over time, both the Chief Nurse, Jen Rodgers and the GM, Jamie Redfern, would come to the ward and they would assist ward staff in passing information to the families. Again, these communications normally took the form of verbal messages, followed by a letter so that the families could keep it for reference.

237. Families did talk to us about their anxieties. Sometimes they just wanted to talk and tell you about how they were feeling. I felt that I had a good relationship with patients and families and made sure I was checking on them. If they had concerns or feedback, I would then escalate that to the Lead Nurse, Chief Nurse or GM. They were always quite happy to be contacted to come and speak to the families.

238. The Chief Nurse at this time was Jen Rodgers and the Lead Nurse was Melanie Hutton, followed by Kathleen Thomson and then Gael Rolls. Gael was the previous Senior Charge Nurse in intensive care. She was very supportive. She understood was it was like to run a large unit and have issues, so I would feel really supported when Gael was in post. She would always communicate back to me and, if I had any issues or needed help doing anything, I could contact her. If I needed to contact Jen Rodgers or Jamie, as the GM, I would send an email or ask them to come to the ward and speak to families with me. It was not an issue; they would come as soon as they could.

The Closed Facebook Group

239. Following feedback from patients and families, GGC set up a closed Facebook Group for families in the Schiehallion Unit. This was in an effort to avoid delays in information being communicated to the families. Information and updates are uploaded by the Communications team and I am one of the administrators for the Group. I have access and can put updates on it and share any good news stories. The Facebook page was well received by the families. I have not really heard otherwise. To become a member, a parent has to confirm that their child is a patient on ward 2A and that they will abide by the group rules to be kind to each other.

240. Some of the information I put on the Facebook Group is as follows: invitations to afternoon tea with Psychology and the Young Life vs Cancer; information from the feedback board on the ward; local updates, or information from charities who want to reach out to families.

241. If there is a letter to go out to all the parents, it is now posted on the Facebook Group. It is a quicker way to communicate and it also means that parents can communicate with each other and share stories about their children, or they can ask questions about the ward. It is a way of getting information out to parents quickly and avoids the situation we had previously where parents were hearing information in the media before they were hearing it from the hospital.

242. There are other Facebook pages, a Glasgow charity one and a hospital wide one. There was also a closed Facebook page set up and run by the families. I do not have access to that one but some of the families would tell me things that were written on that and I am aware that sometimes there were comments that were not so nice. Maybe that was a way for the parents to vent, which is fine.

Media Communication

243. The media printed stories on various occasions which was not always helpful as they were not accurate. This led families to think that we were hiding things. Being on the front line, we were on the receiving end of a lot of negative and often inaccurate publicity.

The Duty of Candour

244. The duty of candour is all about being open, transparent, and honest with patients and families. I have never had any concerns about wrongdoings or failures in the hospital. I have never been directly involved in anything like that.

Current situation

245. Communication processes have changed since all of the issues have arisen. We now have the closed Facebook group, so that we can update the families and, for the staff, we have always carried out the safety brief, but we now keep it electronically and accessible on the shared drive, which is an improvement, as it used to be sheets of paper in a folder. Now we have got a more robust system which is easier to refer back to.

Closing Comments

246. On reflection, we were trying to do everything safely for the patients. All the ward moves and all the additional things that we done was to do with patient safety. It was definitely a difficult time, but hopefully that is us now settled and we will not ever have anything like that again. If anything, there have been good lessons learned on what to do in these situations, although hopefully we will never be in that situation again, nor will any otherward.

247. I believe that the facts stated in this witness statement are true, that this statement may form part of the evidence before the Inquiry and be published on the Inquiry's website.