SCOTTISH HOSPITALS INQUIRY

Hearings Commencing
19 August 2024

Day 21
Friday, 20 September 2024

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THE CHAIR: Good morning and good morning, Mr Maciver. We're ready to begin with Mr Brattey.

MR MACIVER: Mr Brattey, my Lord.

THE CHAIR: Right. Good morning, Mr Brattey.

THE WITNESS: Good morning.

THE CHAIR: As you'll understand, you're about to be asked some questions by Mr Maciver, who's sitting opposite you but, first of all, I understand you're prepared to take the oath.

THE WITNESS: Yes.

Mr David Brattey

Sworn

THE CHAIR: Thank you, Mr Brattey. I don't know how long your evidence will take. We've scheduled the morning. We usually take a coffee break at about half past 11, but if you want to take a break at any other time, just give me an indication, and we can take a break. Now, Ms Maciver.

Questioned by Mr Maciver

Q Good morning.

A Good morning.

Q Could you tell the Inquiry your name, please?

A David Brattey.

Q And what's your current occupation?

A Retired.

Q I understand that, formerly, you were at the Queen Elizabeth University Hospital from around April 2015 until you retired. Is that right?

A That's correct.

Q When did retire?

A 30 March 2018.

Q What was your job title at the Queen Elizabeth?

A Senior Estates Manager.

Q And I understand as well, from reading your statement, that you had something of a winding down period before you retired. Would that be correct?

A Yes. From 5 January 2018 through to 30 March, I was on a phased retirement.

Q And what did that involve?

A January, it was a four day week, February a three day week, and March two days a week.

Q Now, I mentioned a moment ago of having gleaned that from your statement to the Inquiry. Are you content to adopt that statement as your evidence before the Inquiry today?

A Yes.

Q There'll be times when I take you to that statement or to other documents. If and when I do, they'll come up on the screen directly in front of you, so you'll be able to read the parts

that I'm taking you to then. Okay. So, the first section of questions I have for you are about your role at the Queen Elizabeth. Already-- You've already told me once but, again, what was your job title at the Queen Elizabeth Hospital?

A My job title was Senior Estates Manager.

Q And you had roles at other hospitals before you moved there. You've set them out at-- if you have-- if the statement comes up at page-- It's page 182 of this week's bundle, and you'll see there's a list that you've completed of your previous posts. I wonder, rather than taking us through that point-by-point, if you can just summarise from memory your career path through the NHS.

A Well, I joined the NHS in 1973 as an apprentice electrician. I was with the Western Regional Hospital Board. So, that took four years. I then became an approved electrician in 1977. I was working in the primary care sector at that time, although it wasn't really known as the primary care, and that was for 13 years till 1990. Then, during the mid 80s, we had a change of boss, and he encouraged me to go back to school, as it were, and do my ONC and HNC, which I did. Then I was looking for Estates officer's jobs around about the 90s-- early 90s. So, Estates Officer, primarily, initially in Dykebar Hospital in Paisley,

and then across to the RAH, and in that period, as I say, I ended up going from maintenance to projects and doing that. Then, 2010 to 2014, I was at the RAH initially on a secondment to help the project officer there. They deal with a lot of work regarding environmental issues and stuff like that.

Q But you're still an Estates manager at this point?

A Estates, yeah.

Q Yes.

A And there was quite a lot of money came down from central government, and it had to be spent at the RAH to bring that up to a standard. So, the project manager there needed a hand. So I was seconded over there initially for three months, and it got extended to six months and then a year, and then he left to go to another job, and then I inherited that job, as it were. Then, 2014, right out of the blue, I was approached to see if I wanted to take up a secondment at the Southern General Hospital for maintenance, and I only had a couple of days to think about it, but I said yes to that. So, I transferred to the Southern General in the middle of June 2014, and that was for a year's secondment initially.

Q I understand that that meant becoming a Senior Estates Manager rather than an Estates Manager as you

were before.

A Yes.

Q Okay. Thank you. There's one thing that you mentioned in your statement. It's from page 183. In the second block there, you mention, becoming an "Authorised Person for (MGPS)."

A Yes, Medical Gas Pipeline Systems.

Q Sorry, I spoke over you there. MGPS means----

A Medical Gas Pipeline Systems.

Q Now, what did that particular position involve, becoming an authorised person?

A Well, initially it was a backup to the existing AP on the site. The authorised engineer, sort of, mentioned that there really should be two APs for the size of installation. So, a second AP needed to be appointed, and I was that person.

Q And just to be clear about AP, AP stands for Authorised Person.

A Yes.

Q That's a specific role that is required.

A Yes.

Q And required by what?

A Well, it's-- If there's any any work required to be done on the system, it's an AP that needs to be in charge of it, as it were, and he needs to authorise

work under a permit to work system. So, generally, the AP wrote the permit to work or whatever required to be done. Whether that was maintenance by the quality control team or work on the external tank by air products or whatever, it was all done under the guidance of the AP.

Q And your specific AP appointment was in relation to medical gas?

A Sorry?

Q You told us that your specific appointment as an AP was in relation to medical gas pipelines?

A Yes, oxygen, nitrous, things like that, medical air.

Q Did you have to do any special training to get that appointment?

A Yes. I had to go to-- It was five days training. I can't remember initially where it was now. It might have been in Glasgow, but it might have been down in Falfield. There was a training centre down near Bristol, but I can't remember if I went to that initially, but it was a five day course.

Q Okay. Thank you. Now, right at the end of your summary there, you mentioned that you took a secondment to the Southern General Hospital, and that was in 2014.

A Yes.

Q So, when I say "referring to

your summary," I'm to speak about the oral summary.

A Yeah, that's correct.

Q And the Southern General's the same site, or part of the site anyway, that is now the Queen Elizabeth hospital. Is that right?

A Mm-hmm.

Q Your job at Southern General was Senior Estates Manager. Did you have-- During your time-- In fact, can you give me the dates again for your time at Southern General?

A It was June '14 I moved to the Southern General, and I was initially seconded there for a year, but then I was interviewed for the post of Senior Estates Manager in the new hospital I think at the end of December/beginning of January 2015, and I took up that post in April when they, sort of, started patient migration. So, I didn't complete my secondment for the year. It was 10 months.

Q Okay. So, during your time at Southern General, that would be the time that the build was being finished off on Queen Elizabeth.

A Yeah.

Q Did you have any responsibilities for the new hospital that was being built?

A No.

Q Did you have any involvement

with that new build during the time at Southern General?

A None at all. I was invited over a couple of times just to have a look around. I think, certainly before Christmas, I was over on one or two occasions just to have a look round by-- I can't remember. One of the Brookfield reps invited me over to have a look, and that was all it was, just a look around.

Q Okay, and what was the job at the Queen Elizabeth?

A Senior Estates Manager.

Q Senior Estates Manager.

A Yes.

Q Was that the same job-- the same roles and responsibilities that you were doing at Southern General?

A Yes.

Q Did you continue to have responsibilities over the old Southern General?

A I did. I looked after the autoclave contract up in Microbiology in the lab block, and medical gases-- the medical gas pipeline systems in the existing retained estate. So, that was the Maternity, the Neurosurgery and other things like that on the retained. So I was involved in that.

Q Did you have other responsibilities that you didn't carry over at the time that you moved to QEUH?

A I can't think of any. I just-- It

was a very similar job once I moved across.

Q As a Senior Estates Manager, were you responsible for other people?

A Yes, I had five duty managers below me. They worked on a shift rotation type thing on the new hospital, and I had supervisors below that, and then the tradesmen: the technicians, which we had electrical, mechanical and plumbing; and then we had other tradesmen, joiners, painters and decorator-- painters and maintenance assistants.

Q I'd like to get a picture of what your job actually involved. So I wonder if you can describe, when you moved over in April 2015, what your day-to-day work would have been?

A Well, when I moved over in April, as I say, I'd only been over in the hospital a couple of times, so for the first few months I was just trying to find my way around the hospital, get myself familiarised with the plant equipment, meet people that I was going to be dealing with. I generally-- I started to go to Ian Powrie-- introduced me to the huddle, which was the management meeting at 8.30 every morning on the level three. It was run by a director of nursing – I think it was Anne Harkness – and that was a core part of my day.

I had to be at that huddle every day, 8.30 on the dot and, as much as Ian might give me work to do over the course of my job there, a lot of my work came from that huddle meeting, and it would generally be what's happened on the previous night, you know, a few things like that, and then she would just look at me and say, "David, we need to deal with this; we need to deal with that," and basically, that's-- that was my workload for the day.

I couldn't really delegate it to anybody because, the duty managers, they were up to their eyes dealing with the supervisors and the (inaudible) and stuff like that. So a lot of the work that came from the huddle, I just had to take it on board myself and deal with it as best I could.

Q Okay. Well, a couple of things from that. That sounds as if you were being given tasks as they'd arisen immediately prior to the huddle. Is that correct?

A Yes, it could-- They could have sort of been what has happened during the night that needed to be rectified during the day.

Q Does it follow from that, then, that there would have been no particular pattern to the type of tasks that you'd be undertaking?

A Yes.

Q So, those are tasks coming

from the huddle?

A Yes.

Q But you mentioned also that there's another source that you may be getting work from?

A My boss.

Q Your boss would be who?

A Ian Powrie.

Q Ian Powrie. How did you get allocated to tasks by Ian Powrie?

A He would just-- we would meet up-- I saw Ian every day practically, because his office was just up the corridor from mine. So, yes, he would come down and see me or-- that, generally, how it worked. He would just have a chat with me and say, "This is"-- he would like me to look at a particular thing or whatever. It was very rarely a formal thing. It was just generally a conversation.

Q Okay. So these were generally oral instructions rather than being written or electronic instructions?

A Yes, yes, yes, yes. I mean, he would send the odd email but, generally, it was an oral instruction if-- I mean, he didn't give me a lot of work. Over the three years I was there, he didn't give me a huge amount of work to do because I was-- I had plenty of work to do myself, you know what I mean?

Q The tasks that were given to you, were they recorded?

A By Ian?

Q Either by Ian or from the huddle.

A Yes, they were-- were down on that-- we got a report from the huddle. The huddle-- everybody at the end of the huddle got a resume of what was discussed at that huddle. Sometime later on in the day, that came down via email.

Q And would there be tasks allocated to you by name within that?

A There may have been but, generally, I got the gist of what needed to be done at the huddle and that's-- I took a note of that and tried to carry them out as best I could.

Q And, again, you may have alluded to this, but what type of tasks were they? Can you give me examples of the sorts of things that you'd been asked to do?

A Okay. Well, mostly, it related around the wards. So if there was an issue in a particular room that needed to be rectified, and as I say, over the course of my time there we had various things going on there. We had window blind issues where the mechanism of the blind had failed and then the blind was either fully open or fully closed. So, that either meant that the patient couldn't get to sleep at night because the blinds were wide open or vice versa; they couldn't get any light into the room other than artificial

light because the blinds were down.

So it was trying to investigate that, see what the problem was and trying to get that rectified, but that was a-- that was a bigger problem that took months to resolve because the mechanisms were breaking in a lot of the rooms and it needed an outside-- I needed a contractor to come in and actually try and investigate why these mechanisms were breaking. One of the reasons is the blinds were too-- the blind was in between two pieces of glass and the mechanism was to open the blind or close the blind, not pull the blind up or down and I think that was what was happening. The user – patient, I mean – was trying to pull the blind up or down and the mechanism in the top snapped, causing the blind there to be fully open or fully closed.

Q Did I pick you up right that this was something that you required to instruct contractors to fix?

Q Yes, we had to try and work out a solution to try and see what-- how this mechanism could be repaired to allow the blind to operate properly.

Q So, window blinds would be an example of a practical problem that was allocated to you to fix----

A Yes.

Q -- and that you looked at yourself but decided you had to get external help to fix?

A Yes. Yes, I think it might have been-- we may have spoken to Brookfield on this as well because this happened very early on in the-- after the hospital opened. So I think they were involved as well to a degree, but it required an external contractor outwith the contractor that installed them to come in and look at it.

Q So that would be one type of hardware issue.

A Yes.

Q Can you give me an example of maybe one or two other?

A We had smells in the rooms. So certain rooms had to be taken out of action because of a smell-- of an odour within the room that nobody could fathom out what this was. But it was-- when you go into the room, you immediately note-- you sensed that you couldn't spend any time in there. So that was a room that was out of action and, as far as Anne was concerned, you know, that's one room less that they can have a patient occupying in it.

So we were trying to investigate: did something get spilled onto the floor or whatever? We just-- We couldn't really get our heads around what was causing this, and we opened up a wall and we had people in looking at it and this, that and the next thing, and we just, over

time-- and it came to be that we felt the floor was contaminated in some way or other and the only way to eradicate the smell was to get-- remove the flooring. So that took-- from lifting the flooring to relaying a new piece of flooring and getting the room all cleaned up and ready for occupation again, that took three to four days. So that was----

Q I take it that wasn't work that you carried out yourself?

A I didn't carry that out myself. I made it happen, if you know what I mean. I got everybody involved that needed to be in there to do that work. So I had to get the contractor-- a contractor in, show him the thing, agree when it could be done, get an HAI-SCRIBE written up for that piece of work. So I was involved.

Q Okay. Can you recall what wards that was with contaminated flooring?

A It was all over the medical ward. Over a period of time, we had a room here, a room there, a room up. There was no kind of sense to it. It could be anywhere. It just happened.

Q When you say contaminated, what do you mean by that? Are you using contaminated to mean that it put out a bad smell or?

A It put out a bad smell that the patient couldn't tolerate and if you went into the room you wouldn't be able to

tolerate it either. So we couldn't fathom out where the smell was coming from, but the conclusion was if we remove the flooring and put a new piece of lino down, and that did seem to work. That seemed to eradicate it. Once the flooring was removed and a new piece went down, the smell was gone.

Q Are you aware of what happened to the old flooring when it was taken away?

A No, I-- no, I don't know what happened to that.

Q Do you know if anybody looked at it or tested it or if it was just dumped?

A It was probably just dumped, I don't know. We did have specialists in in the early days trying to see what it was, but we weren't getting any-- making any headway with that.

Q Okay, so the picture I'm getting from you is it was a mixed bag of tasks, problem solving, would that be a fair way of putting it?

A Yes. Yes, problem solving, yes.

Q And these would be, essentially, random problems allocated to you to solve?

A Yes, yes.

Q Now, I was going to ask you whether you were hands-on with those tasks, but the picture I'm getting is that

often you weren't hands-on. Were there other tasks where you would be hands-on?

A No, I think I was a coordinating person. I just had to make sure that the task happened. It was either me speaking to someone below me, my duty manager or the supervisor, whatever, or getting onto a contractor and getting someone into the hospital to have a look at it to see if they could sort the problem.

Q Okay. When a task was completed, what did-- what happened next?

A The room was cleaned. It was totally thoroughly cleaned and then it was given back to the ward to be occupied again.

Q Did you have to record that in any way?

A I think we did record that. I think on that-- I think we created a spreadsheet of all the rooms that this occurred and then we marked it off as being complete.

Q When you say all the rooms where this had occurred, are you speaking specifically about the floors at this point or----

A Floors. It was all related to the floors. Once the lino was lifted and replaced, the smell was gone.

Q Okay, thank you. In general, my question was slightly more-- intended to be slightly more general than that. You would have had a set of-- a random set of work, some to do with blinds, some to do with floors, some to do with other things. As a generality, when you-- when a task was completed, would the completion be recorded somewhere?

A Not always.

Q What determined whether it would be recorded or not?

A If we had to get multiple people in, if we had to get contractors in and stuff like that, then that-- but if it was just something that we handled in-house, then it was just completed and agreed to-- agreed that it was complete at that point.

Q If, looking back, somebody had to go back and put together a record of all the work you'd carried out in your time, would they be able to do that?

A Probably not.

Q But they'd be able to put together some of it?

A Yes, I mean-- yes, I was a pretty busy guy, I'll tell you that.

Q And whether or not it appeared on this record would be on the basis of whether or not it happened to be one of the tasks that got recorded?

A Yes. Yes.

Q Now, just before I move on, one of the things that you mentioned there was completing a HAI-SCRIBE.

A Yes.

Q Can you tell me what that means, please?

A It's a risk assessment for health care in buildings, environments, so it's a hospital-acquired infection. So it's mitigating that, it's putting a risk assessment together, so any work that's getting carried out, you've kind of looked at all the issues that might come up and how you're going to overcome that so that you keep the risk to a minimum when you're doing any work.

Q And is there a specific way for work to be done to the fabric of the building?

A Yes, but it can be other things as well, it's-- but, yes, mostly to the fabric, yes, I would say so. Yes. So the word bespoke, you had to make-- you had to do a risk assessment pretty much for every job initially because there wasn't anything there to go by. You had to then create that from the word go and then put it to Infection Control, get their okay, sometimes we would sit down and-- together, Infection Control and I, and go through it or quite often I would do it. I wouldn't-- I would do the assessment and then pass it on and go and meet them and say, "This is what's-- what we're planning to do. Are you okay with this?"

Q Are these potentially complicated documents?

A They were quite comprehensive. I wouldn't say they were difficult, you just had to go through each step in turn and make sure that you're-- the class of, against the clientele, was the correct category and stuff like that, and you just had to go through the matrix and track-- and then it would-- it would all work out, but you had to put detailed stuff in of what you were going to be doing. So, it was-- you know, and then, if Infection Control were happy with that, then signed it off and said, "You're good to go."

Q Did you have any training in how to complete these documents?

A I can't honestly say I did. I think it was-- I learned myself from scratch.

Q And one of the things-- you described it there as, "Going through the matrix and ticking things off." What does that mean?

A Well, it was just looking at the class of work that you were going to be doing; is it low, medium, high or very high? And then the category of clientele: is it an office, is it a thoroughfare, is it a ward, or is it a ward where it's immunocompromised patients? So, there's four things that you've just got to then go through, and then it'll work out whether it's a high hazard job or a very high hazard job, and then all the

mitigation has got to go against that so that you take much more precautions on a very high hazard job than you would do on a----

Q Are you describing-- The word I was interested in was matrix, there. Are you describing a particular online form or online grids or something of that nature?

A It's something-- Yeah, it's a standard thing. When you download the document, it's there in front of you. You're not making it up, it's there. Once you go through the tasks and the area that you're going to be working in, then you look at this and then it'll tell you the class of job that it falls under, and that's where you've then got to mitigate the risks associated with that class.

Q How do you know at which level those risks or even which type of job it would be?

A If you're working in a ward, a clinical ward, that comes under a certain class. Then, you would then go to the matrix, and you would look at that, and it would just come down and it would say, "A high hazard job," there. So, "high hazard" means this is what you need to do if it's high hazard so that you're not going to do anything detrimental; everything that you're going to do is going to keep everything safe whilst you're doing that job.

Q Did you also say that, once you'd been through that process, it would be then for you to enter details of the job into HAI-SCRIBE?

A You would enter the details-- You would handwrite the details of the job, or type that in, the details of the job, and the mitigations that you were going to look-- what protective measures that you were going to put into place whilst you were doing that job.

Q How would you know what details were important to be entered in?

A You would just-- I think just experience tells you what you need to put in there. You just-- Your job, you know? You just learn that, if you know what I mean, but if I omitted something, Infection Control would tell me, "David, you need to put this in here. You need to do this. You need to do that." So, they would bounce that back to me and say, "You've missed something out here," or, "You've done this," but generally, after a while, I was quite competent at doing these, so generally, first time around, it was good to go.

Q Okay. So, in general, if I can try to summarise that process, you'd be given a grid or a matrix to fill in that determines what risk level effectively there was for the job. Secondly, it was for you to enter details of the job and details of mitigating measures that you'd be taking, and you say that you simply

would know that from your experience----

A Yes.

Q -- and then, thirdly, that would go to Infection Control, who would then have input into the process?

A Yes.

Q But you don't have any specific training on the process itself, it's just something you picked up?

A Yes, because I was doing the HAI-SCRIBEs at the RAH, and I think I was doing them at Dykebar, you know, so I- They've been in existence for a long time, so-- Yes.

Q Okay, thank you. Moving on to think about training generally, you've already told me the job title was the same when you moved from Southern General to the Queen Elizabeth, but in terms of environment, would it be fair to say that your job changed completely?

A Yeah. The old hospital was in its last legs, as it were, so it was very old equipment, and you just had to get it over the line, as it were. You just had to try and keep it running until it closed, or till the part of it, you know-- It didn't all close. As I said, Neurosurgery and Maternity were still there, but the older part, the very old part, you just had to keep it going until the last patient was out the door, and the new hospital-- I mean, this brand-new facility. You're just thinking, great, you're going to get in

there and you won't have the issues that you've faced in the last six months, it'll just all be plain sailing.

Q You mentioned already that your first-- I think you said your first few months were about familiarising yourself with your surroundings to a large extent.

A Yes.

Q And that makes sense, because you're dealing with an estate that – albeit it's adjacent to the one you've been working in – is effectively entirely new to you. Is that fair?

A Yes. Yeah, yes.

Q Did you have any induction training to help you with this?

A I don't think I did, actually, no. I had half a day with Brookfield going through ZUTEC or something, which is the database for the assets. I think that's all I've really had. I don't think I had any induction training as such, I just had to familiarise myself, that being myself getting round the building as often as I could in these first few weeks, first few months.

Q Did that strike you as a problem?

A Not initially. I was very keen to get in there and see it for myself and get around, so----

Q Looking back on it now, does it seem to you that that was best practice, if I put it like that, to put you into a new job

on a new estate, or the same job on a new estate, but for the training only to amount to half a day's induction on ZUTEC, a computer system?

A Yeah, in hindsight, it probably would have been better to have been shown around more often and shown the critical plant and stuff like that and-- Yeah. It was a big ask, but as I say, I was very, very keen to get in there start doing a good job.

Q You mentioned, as an example there, the critical plant is something you should probably have seen more of. Are there any examples that come to mind as times when induction would have been useful, or would have helped, and you were a little bit at sea because you were having to deal with something where you hadn't had induction?

A Yeah, I think the huge plant room in level 3, plant room 33, which was absolutely enormous, you could get lost in there. I think that would have been beneficial had I been shown that in advance and taken around all the plant that was in there. As I say, it was such a huge room. That would have been beneficial.

Q Just in practical terms, how would it have helped?

A Well, you could see where all the main air handling units were for the theatres and stuff like that, and just the

medical area-- Everything-- There was an awful lot of equipment housed in that room. It was just enormous.

Q I take it, if you were looking in that room, that would mean that you had been allocated tasks that meant that you had to do things in that room. Would that be right?

A Later on, you mean?

Q Yes.

A Yes, later on. I was in that room practically every day of my working life in that hospital.

Q Okay. So, when you're saying that lack of induction was a hindrance, does that mean that it made those jobs more difficult, made them impossible, made them slower? What was the hindrance to you?

A I don't think it was a hindrance as such. I got familiar with that room fairly quickly, because as I say, I was in there often. So, I don't think it was too much of a hindrance. It would have been beneficial, I suppose, right at the start, but after finding my feet there, I was in that room every day.

Q Okay. Setting aside the plant room, if we think about key events or key tasks that ought to be undertaken at the hospital – things like asset tagging or validation of systems and so on – did you have any induction or introduction to those systems?

A No.

Q If we move on to page 191 of the statement now, so this is part of-- I'm interested in the top part of the page. If we go back one page, question 29, the question here is about operating systems at handover, and question (b) is, "What training was put in place for maintaining the operating systems?" Then, if we go over to 191, you said you don't know what training was put in place other than a session showing how to use ZUTEC and chilled water systems training. ZUTEC is the one you mentioned.

A Yeah.

Q Chilled water systems training you come on to more in the question below, and you say:

> "Brookfield Multiplex carried out training on chilled water, however I was not aware of this and did not participate. "

A Mm-hmm.

Q That's right?

A I only participated in in the ZUTEC training, which was a half a day or a day, where we were invited over to the Brookfield offices, and this was before the hospital-- before patient migration.

Q How was it that you were not made of the chilled water training?

A Well, I was still-- I don't know the answer to that. I was still-- I was working in the old Southern General at this time, as I say. I was only invited over occasionally, and-- but, you know, I was still at another hospital. I wasn't involved with that at all. I wasn't invited. I didn't ask to go, I just-- I was so busy keeping the old hospital running that I just-- If I was invited over, I would have gone over, but I wasn't.

Q Were there other examples of training being put on that you didn't attend that you can recall?

A I don't know, is the answer to that.

Q Was training something you were looking out for?

A I wasn't.

Q You mentioned also that you were in charge of what sounds like a fairly hefty team, or certainly that you were supervising (inaudible) Estate Managers and so on. Did you encourage those responsible to you to participate in training?

A No, I didn't. I didn't know their level of training when I took over, I just-- That was the complement of staff we had and that's-- we were just set out to start working in a new hospital, so I didn't know who was who was qualified in what or what training people had. So, I wasn't involved in the training at all prior to taking up my post.

Q You mentioned qualifications.

They are not-- This isn't quite a qualification, but you mentioned authorised persons already. When you got to Queen Elizabeth, were you aware of the filling of these key positions, whether there were authorised persons appointed and so on?

A To be honest, it didn't occur to me. Initially, I didn't know if there were authorised persons for the other disciplines. I knew that I was going to be-- Well, I assumed I would be AP for medical gases in the new site. I would still have to be trained up-- not so much trained up in that, but get myself familiarised with the systems in the new part, and then the authorising engineer would come in-- or I would call him at some point to say, "I think I'm up to speed," and he would come in and assess me on that, but in the other disciplines I didn't know who was-- if there were APs that I'd come across or whatever. So, I was-- Initially, it didn't occur to me on the other disciplines.

Q The other disciplines being water----

A Water and ventilation.

Q You say initially it didn't occur to you. Did it occur to you later? Did you make inquiries later?

A I think much later, you know, much later on in that year when I was starting to attend meetings, and then, you know, it may have clicked in there that people were doing stuff and they weren't qualified to do it.

Q Would you be able to pinpoint a time when that thought crossed your mind?

A Well, I know we started doing-- I started doing the maintenance for the theatres and stuff like that, so that was about a year into the role, so that was maybe April or May 2016 we were starting to do ventilation-- verification of the theatres and stuff like that, and although I think we were doing a very good job, I suddenly realised there that I wasn't an AP for that, but-- I mean, if I knew that, other people above me must have known that, but we continued to do the maintenance of all the critical plant, all the theatres, we had a-- that was an ongoing thing. We were taking a theatre out of use almost on a weekly basis because we had so many of them, so I was involved in that.

Q You say you did that to-- You considered yourself to have done a good job?

A Yes.

Q Even though that was something you weren't appointed to.

A Yes.

Q Nevertheless, you were conscious that there weren't authorised people for water and ventilation.

A Mm-hmm.

Q Did you make enquiries as to why not?

A No, I don't think I did, actually. I mean, it's hard to explain. I was just so busy at that hospital. It just got busier and busier and busier, and I was just working flat-out everyday. So, training didn't occur to me. I just was concentrating and doing my job. So, I think it came to light much further down the line when I started to attend meetings when Alan Gallacher got appointed to the post, and then we started having area-wide Estates meetings, and he was chairing that. I think APs and CPs and that came to light then, but that was much, much further down the line, maybe in 2016 into 2017, at that time.

So, there was someone appointed to look at training, I believe, for the whole of the NHS Estates, so I know the APs and CPs were mentioned at that point, or that was a topic, but I didn't personally take that one to deal with. That was getting handled by someone else.

Q You were concentrating on doing the job, but not looking into whether the appointment of these specific roles was in hand?

A Correct.

Q Whose responsibility would it have been to make those appointments?

A Well, I don't know whether that would have been my boss or not, or the general manager. I don't know.

Q I think you said that there was a general awareness. It wasn't just yourself, but a general awareness that these roles weren't filled. Did I pick you up right?

A I was aware that they weren't being filled. I don't know whether others were. I mean, surely they must have known who was AP for this, that, and the next thing, but I don't know how important it was to them to try and get these positions filled. I do recall an authorising engineer coming in at some point, and I think he might have been for ventilation, or he might have been-- he was from some other discipline, and I think he did highlight that we needed APs, but I don't know. I didn't think it was down to me to get that to happen. As I say, I was under the (inaudible) every day. I mean, it was just such a busy environment. I just had to focus on the job in hand.

Q Looking back now, do you feel it's something that you ought to have raised with somebody?

A Possibly right at the start when, yes, everybody was appointed. Maybe I should have sat down and said, "Well, what's he got? What can he bring to the table? Is he an AP in this, or an AP in that? Should we get him trained up?" I think APs, it's all about familiarising

yourself with the site, making sure you've got a thorough knowledge of the system, and then inviting the authorising engineer in for that discipline to assess you. That's how the medical gas works. I think that's how the electricity systems worked. You just don't get appointed. You need to know the systems thoroughly, and then you invite the AE in, and then he will assess you.

Q Okay. I mean, you said that what made that question click for you was when you moved on to doing the water and ventilation works yourself.

A Yes.

Q If we move back three pages in your statement to page 188, this is the start of the section where you were asked about training, and question 21 is quite straightforward. You're asked what formal training or qualifications you had in the following: water, none; ventilation, none; infection control, none. Does that apply equally to your time at the Queen Elizabeth? When you moved on to dealing with water and ventilation, you did that without being trained in those areas?

A Yes.

Q Your background, essentially, was electrical, I think you told us at the very start.

A That's correct.

Q It's an obvious question but, in hindsight, would it have been of benefit to you to have had training in water, in ventilation, in infection control?

A It probably would have done. When I was an electrician I worked in ventilation systems, so, I mean, ventilation equipment wasn't foreign to me. As an electrician, if an air handling unit had broken down in the hospital that I was in, I would go and investigate it and fix it. So I knew-- ventilation was something that you dealt with on a daily basis as a tradesman.

Q Does it trouble you or not then, looking back, that you were working in water and ventilation without having had formal training in those issues?

A Formal training would have been better. I do agree.

Q You mentioned ventilation is something you were reasonably au fait with in your view. Does the same hold for water?

A No.

Q Did you have any experience dealing with water systems before you got there?

A Yes, I think in my previous post, because when I was project manager in the RAH and stuff, I had a copy of the guidance at my desk in my drawer. I knew that if we were installing anything it had to be to a certain standard, and we followed that. So, yes, I knew about testing and maintenance, but

I wasn't directly involved with that, if you know what I mean. People below me, the technicians guys, were the ones that did the maintenance.

Q It doesn't rise to the level of being troubling to you, but nevertheless you say it would have been helpful to have had training in----

A Yes.

Q -- ventilation and in water. Were you conscious of that at the time when you started moving into dealing with water and ventilation more?

A I wasn't conscious, no. No, it didn't occur to me, really. I was fairly confident in what I could do and what I couldn't do.

Q Do you know if the same applied to your colleagues at similar levels, or to your duty Estates managers?

A I don't know, to be honest. I don't know. Are you talking about similar in other parts of the Estate, i.e. Greater Glasgow and Clyde, or particularly to that hospital?

Q Particularly to that hospital. What I have in mind is, well, two parts. Firstly, did you know what training they had in water and ventilation, the people you were working with? Secondly, was it in the air? Was this something that you discussed among yourselves that you were doing these tasks, but hadn't had formal training on them?

A No, I didn't know what they had and, no, it wasn't in the air. We just got on with it.

Q Thank you. On the next page-- In fact, we need to go, sorry, back to page 188 to see question 24 at the bottom. Question 24 at the bottom was about water systems. So, when we go over to page 189, question (d) there is asking you about, specifically, your obligations and responsibilities, and there you mentioned your awareness that you had to comply with the SHTM and L8 guidance. Then you mentioned certain other things that had to be done.

A Yes.

Q Can you explain to us briefly what you understand those documents to be, the two that you mentioned, SHTM and L8?

A Well, that's the Scottish Healthcare Technical Memorandum, and that's sort of, basically, the Bible. Whatever they set down both for installation and maintenance, you follow it. L8 is the approved code of practice, and it's a very similar document. If you follow one, you should be following the other. They literally mirrored each other, and if you do follow that guidance, then you should be meeting all your obligations.

Q Question 25 below that is essentially the same question about

ventilation, so then if we go over the page to 190, question (d) is also about specific legal obligations and responsibilities, and there again you say you knew you had to comply with SHTM guidance, which states that critical ventilation systems will be inspected quarterly and verified at least annually.

A Yes.

Q Now, moving on to deal a little bit more with your ventilation work, I've got some questions about some aspects of the ventilation system, which I'll come on to in a little bit more detail, but for now I'd like to ask about your impression of that SHTM guidance and what it meant for two particular elements of the system, chilled beams and thermal wheels.

So, to assist you with that, page 199. There's question 46, and it's asking about chilled beams:

> "How does SHTM... apply to the use of chilled beams in healthcare settings?"

Your answer there is that:

> "The SHTM guidance is non-specific and gives little guidance as to the suitability of chilled beam technology within healthcare premises."

You see that?

A Yes, I see that. I'm reading that, yes.

Q Then question 47 is slightly more specific:

> "To what extent, if any, is the use of chilled beams in areas housing immune compromised patients compliant with SHTM guidance?"

Here, your answer is:

> "Incompatible due the possibility of condensation and the regular cleaning required to keep the chilled beam working efficiently."

Now, I'll come on later to an incident that raised both of those questions, but your position there is essentially that you can't use chilled beams in immunocompromised areas. Is that right?

A Am I saying that you can use them?

Q You're saying that you can't use them at 47?

A Yes. That's my understanding because, when I was doing that answering, that's not me recollecting back to 2015. That's me trying to read the documentation as of this year.

Q Okay, so this is research you've done yourself----

A Yes.

Q -- to answer this question?

A Yes.

Q Okay, if I can maybe just clear that up then. The SHTM guidance from

the time will be within-- and the document will come up on the screen. So, unusually, this is within one of the Edinburgh bundles. Here we are. Page 2490 you've got in front of you is the title page of the SHTM 03-01, and it's----

THE CHAIR: Mr MacIver, you've explained that this is one of the Edinburgh bundles. Do you have the bundle number?

MR MACIVER: It's bundle 1 from the 26 February hearings from this year.

THE CHAIR: Thank you.

MR MACIVER: We've already gone to the page that I was going to take to, page 2516, paragraph 240 at the top of the page, and I'll read it out. Sorry, we should go back one page, 2515, to see that this is a chilled beams section, and then if we go back over to 240, forward one more page:

> "Consideration should be given to the ease with which specific types of chilled beam units can be accessed for cleaning, having regard to the need to control the infection risk. The impact of maintenance requirements and room availability should also be considered."

Now, would you agree with me that that doesn't, in fact, amount to a prohibition on chilled beams in particular premises. Instead, what this is saying is that you should take into account specific needs, cleaning, access, room availability, and then that will inform a decision as to whether or not chilled beams can be used on particular premises? Would you agree with that reading of it?

A Yes, I probably would, yes.

Q Well, can I ask in generally, then, what were the cleaning practices regarding chilled beams in the hospital, so far as you came across them?

A Well, I think they were becoming dirty more quickly than first anticipated. Again, to clean a chilled beam we had to get access to the room, remove the cover, so the patient would not be in the room at the time, and I think we would seal the room off and remove the cover, let it hang down, and then we would use the HEPA filters hoover to clean in between the fins.

Q These are, essentially, the very issues that are referred to in the paragraph I read out: access, room availability. That's the sort of thing----

A Mm-hmm.

Q -- that you had in mind.

THE CHAIR: Now, just so that I follow that, we talked about bringing the chilled beam unit down from the roof space. Have I followed that?

A No, it would be the cover, my

Lord. It would just be the cover that you see on the----

Q Right, so you're not moving the unit?

A No, you would just unhook one side of it, and then it would allow it to hang. If it needed to come down completely, you would just unclip it from the hook arrangement and take it down.

Q Did I hear you say that you would use something to clean the HEPA filter, or do you remove the-- do you replace the HEPA filter?

A No, you stand up on the ladder or whatever apparatus you had in the room, scaff-- whatever, and you would stand and hoover in between the things----

Q Right. So you've got a vacuum cleaner----

A The vacuum would be in your hand, and it would be a HEPA filter vacuum.

Q Thank you.

MR MACIVER: On page 199 of the statement, there's an allusion to something you mentioned yourself a moment ago. Question 50 here is essentially a question I asked you:

> "Describe your understanding at the time of the cleaning regimes in place for chilled beams?"

You say:

> "There was a PPM schedule in place. I think this was for annual cleaning, however I think that frequency was too long and had to be reduced as the chilled beams right across the hospital were becoming dirtier more quickly."

How did it come to light that annual cleaning was too long a gap?

A I think people were noticing that the chilled beams were becoming dirty. You could see it on the grill and----

Q When you say you could "see it on the grill," what do you mean by that?

A Like that-- What you see in the room, you could see it's all-- had holes in it to allow the heat through. So, you could see the-- not dirt, but it's like a stoor sticking to that, and that's when it became evident that they needed to be cleaned.

Q Okay. So these grills were physically becoming tarnished in such a way that you could see it from within the rooms.

A Yes.

Q Do you know why they became dirtier faster than anyone had anticipated?

A No, but whilst I was doing my research for answering some of these questions, I did come across something that Dr Inkster had written. I think she had written a paper, and it was about the

linen-- the type of bed linen that was being used throughout the hospital, and this was somehow getting in there. I'm trying to think of the-- like, the makeup of the bed linen. I can't describe it but, you know, not the exact what what I'm looking for here, but that would get dragged up, as it were, into the-- over time, and that contributed to the clogging up of things.

Q Thank you. So, this certainly won't be the right words but, effectively, a kind of dust-- cloth dust?

A Yes.

Q The word you mentioned before was stoor, was what you can see. So is that what you're talking about?

A Yeah, that's what I'm talking about. She mentioned something about that in a paper that she had written – I think after the hospital opened up – that maybe having-- putting chill beams into a healthcare setting might not have been the best form of heating, if you know what I mean. It was something to do with that, and that's-- I read that just recently and-- Well, so, I'm just trying to answer these questions.

Q Okay. That wasn't something you saw yourself----

THE CHAIR: Can I just check if I've understood that? What I think you said – and tell me if I'm wrong about that – is that as a result of reading a paper and----

A Yes.

Q Yes, and when I say "a paper," an article----

A An article.

Q Dr Inkster was describing – now, have I got this right – the upward movement of air, or am I wrong?

A It's not upward movement of air. I think it's just generally the fabric of the bedding.

Q Okay. So, the fabric of the bedding is the source of the dust?

A Yes.

Q Right. Now, to get to the chilled beam, there has to be a movement of air. Am I right?

A Yes, but I don't know whether that was you making the bed and, you know-- I don't know how it got from the bed to there, but I think she did mention that the use of a particular form of bedding contributed to the clogging up of these beams.

Q Right.

A That's the thing I read.

Q Thank you.

MR MACIVER: Just to be clear again, this is, again, your own recent research in preparation for coming here today. It's not something that you saw yourself at the time?

A No.

Q If we move forwards a couple of pages, 201. We're moving onto thermal wheels at the bottom of this

page. 53 is asking about general position regarding thermal wheels, and you say that, effectively, SHTM permits them in general wards. You see that?

A I see that, yes, sorry.

Q Yes, and then over the page at the top of the next one, 202 is the same but more detailed question about immunocompromised patients and, again, you say that the installation was not compliant.

A That's my understanding of what the guidance was saying, I think.

Q And, again, is that from your recent research?

A Yes.

Q Now, I don't have a quote for you this time. I can only make a suggestion to you of something that's-- because it's something that's not in the SHTM, but if I were to suggest to you that in fact there's no provision in the ventilation SHTM that amounts to prohibition on thermal wheels, would you accept that?

A Yes.

Q Thank you. Moving back to page 189 of the statement, question 25 here is asking about roles and duties in relation to ventilation systems operation and maintenance. You see that?

A Yes, I see that. Yeah.

Q And then over the page, again, at the top is the similar question:

> "How aware were you of specific legal obligations and responsibilities?"

And in fact this is the the one I read to you before:

> "I know we had to comply with the SHTM guidance, which states that critical ventilation systems will be inspected quarterly and verified at least annually."

A Yes.

Q Now, just to ask you about that: was-- First, a quarterly inspection. Was that happening?

A I believe it was. I didn't personally instruct that, but I believe the PPM was set up for that to happen.

Q When you say, "PPM was set up," can you say what you mean by that?

A That's the Plan Prevent and Maintenance Schedule. So, that was just something that the facilities management tool would print out, and that would be the schedule, and it would be given to the the maintenance technicians to go and carry that out.

Q Essentially, this is a computer-generated task system----

A Yes.

Q You mentioned also that critical ventilation systems were to be verified at least annually. Did that, in fact, happen to your knowledge?

A Yes.

Q Were you involved in that?

A Yes.

Q What systems were those critical ventilation systems?

A Theaters. Primarily, theaters and isolation rooms.

Q You say, "Primarily." Were there others?

A No. I think that was-- Critical systems were, all of them, operating theaters throughout and-- both in the adults and the children and the existing sites, the Maternity and the Neurosurgery. So it was all just put one huge-- big spreadsheet of all the theatres, and they were being carried out. So, we're practically doing one a week or one every two weeks.

Q Okay. Now, setting aside what was recorded in the spreadsheet, in your view were there other areas that might or should have been added to the list of medical systems?

A No, I think that covered most of them, I think.

Q When it came to the annual verification, how did you go about doing that?

A We just approached the theatre managers. We shared the spreadsheet out at the beginning of the year, so that would be around about early 2016. That would be-- That would go to all the theater managers for their reviews

and that. Generally, they were absolutely fine with that, and then we would-- as it came nearer the time to do it, we would just-- I would see these theatre managers on a daily basis because they were generally at the huddle, and I would just say to them that, “You'll be in in Theatre 1 today-- this week.” “Yes, we're fine with that. Yes. We'll see you on Wendesday. ”

So, generally, we took the theatre out of action on a Wednesday evening, and we had-- So, we had it all day Thursday, all day Friday, all day Saturday, all day Sunday, and it was handed back on the Monday morning. Initially, some of the theatres did not pass the validation at the end of the work, and that was due to the fact that the HEPA filters in the ultra clean theatres were dirty, and they wouldn't pass the test.

These HEPA filters had a five-year lifespan, but they were having to be replaced after a year, and we didn't obviously keep these filters on site. They had to be then ordered by the company that installed them, and that company was based in Manchester, and we had to order them, pay for them, and get them delivered, and then-- so that meant that that theatre couldn't go back into use on the Monday, which didn't go down well, really, you know-- but, I mean, they understood. They didn't go off the deep end. They just said, “That's fair enough.

We'll work around it. When do you think it'll be repaired?" I said, "Well, we've ordered the filters. They should be here tomorrow or they should be here Wednesday." So, they were they were changed.

Q A knock-on effect would be that it would take the room out of for longer than it was supposed to be.

A Yes, and, admittedly, when the fella came up to do the HEPA-- I said, when he took one of them down, I actually looked at it. I said, "Oh, that looks pretty clean to me." He says, "Aye but wait till you see a clean one." Then when he took the new one out of the box, it was night and day. So, it was clearly quite a dirty-looking filter after a year, so we had to replace that. So, I think, over the course of that year, I think, we had to replace the HEPA filters in at least six or seven theatres at £5,000 a go, which was unexpected costs.

Q Right. Okay. I'll ask you-- pick up a little more-- a couple of details that you raised there, but just before we go on, I asked you about verification. I think you said validation in your answer there. Are you talking about verification or validation?

A Verification.

Q Verification. Did you see any validation documents to assess verification against?

A I did. I don't know when they were handed over, but when we looked at the information on the HEPA filters, we could see, in the validation documents, what the parameters were and what they needed to achieve at the verification stage, and this is what-- they weren't achieving that. So I did see validation documentation. I was able to get my hand on it in the Estate's office. It was in a hard copy, so I was able to look at that. I don't know when that got handed over to us initially, but I could look at that at the time.

Q So, you mentioned that was in a hard copy. How accessible was that to you?

A Very accessible. It's kept in the Estates office, which we had a fairly big, kind of, library in there of all documentation that was required to be there.

Q So that wasn't a problem for you?

A No.

Q We were just speaking about the unexpected dirtying of the chilled beams in the grills in the wards upstairs. Here, you're mentioning a different kind of unexpected dirty, which is the HEPA filters being dirty too soon. Was this a concern for you?

A Yeah. We couldn't put the theatre back to use after five days. We

had to keep it out of action for probably another three or four/five days until we got those filters up.

Q Okay. So, setting aside the immediate knock-on effect of that, it's the second example of things in the hospital being dirtier than anyone had anticipated. Is that a concern?

A Well, it was still-- when I moved in, I thought, you know-- somebody asked me, "What does a hospital look like?" I said, "It's still a building site to me." So, that's what-- My first, kind of, review of it is there was still a lot going on even though it was now a working hospital. So, I suppose the generation of dust and stuff that get in through the ventilation grills was more than what we anticipated.

Q Is that speculation on your part, or is that----

A Speculation.

Q Yes. Do you, in fact, know why the filters in the theatres were----

A No.

Q To just say-- I'm coming back to the verification process, did you compile reports as part of the work you undertook?

A Yes, I think we did. Yeah. Everything was documented for that, yeah.

Q Who would those have gone to?

A They'll be in the Estate's office. It would go into the same kind of folder as per the original documentation.

Q You mentioned that it wasn't just a tick box exercise. There were some places that actually failed the verification initially.

A Yes.

Q Where works were required, were action plans and the like created to put those into effect?

A Not sure it was action plans. It was just things that were noted. I mean, even after one year, you know, if the clinical staff had dropped something onto the floor and the floor had cracked, there was a crack in the linoleum. That linoleum had to be replaced, so that had to be done. So, I think, initially, when we took the theatre over, we would have a courtesy walk around of what-- but the theatre manager would say, "David, the floor's damaged. We need to get that floor fixed," or, "The wall's cracked. We need to get that done," or this or that. So all these things were highlighted to me pretty much on day one on the-- or the evening of handover. I noted all that down, and then we started to think.

The thing about the theatre is you couldn't have every single contractor, every single person, doing maintenance in there at the one time. That's how we had four days to do it. So the flooring

contractor might have been in, and he gets his job done. Then we get the painter in or whatever, or the plasterer in to touch the wall up, then get that painted. So that's all done. That's how it takes four days, and then the medical gasses get checked, everything-- and all that, the filters-- So it takes-- it took the full four days and then, obviously, there was-- my staff are working in the plant room on the actual air handling unit. So they're cleaning that, taking the filters out, replacing them, all of that stuff in the plant room. So it's all over that period of time it takes to do that. It's quite a long process.

Q And was all of that recorded and kept?

A It would be in the folder of-- main folder within the Estates office pertaining to that theatre.

Q So if anybody wanted to go back and get a record of what work had been carried out, would they be able to do so?

A Yes.

Q There's something you've mentioned a few times that I haven't-- haven't asked you yet, Planned Preventative Maintenance. At the time when you started in the Queen Elizabeth, was that adequate PPM being carried out at that time?

A At the very start of the occupation of patients?

Q Yes.

A I can't honestly say what was being carried out right there and then. I know that my staff-- I think my duty manager and my supervisors were starting to create PPM. So I'm not sure what was happening on day one, but certainly we would be looking to create PPM as quickly as we could.

Q Okay, so that's the very start of the process. Can we skip forward to 232 of the statement? And because they are-- At 151, you're being asked about specifically in relation to ventilation, but your answer there is that the compliance in respect of ventilation was good. PPM was being done at correct intervals; verification carried out as you've told us, filters changed, records kept, service contracts in place. With regard to PPM, when you're answering that question, what period are you referring to?

A Quarterly.

Q Quarterly throughout your period at the hospital?

A Yes.

Q Is that different for the initial period when you've joined around April, second quarter of 2015?

A I'm not sure when it started to be honestly-- to be fair. We had to generate the PPM and then get it-- get the intervals correct and then start doing it, so I'm not sure it was done as of April

the first that year.

Q Okay, could you actually explain that to me a little bit more about generating PPM and so on? What process are you talking about?

A Well, that's the actual line. That's the work – the chitty, as it were – that would be given to the tradesmen or given to the technicians, so that has to be generated and that's, again, looking at the asset itself, what's deemed needs to be done at certain intervals, and then that's all put down on-- into the system, and the line is generated and given to the tradesman to carry that out. He may have a checklist with that so that he knows he's going through every stage there.

Q Okay, so this is an actual-- again, an IT system, automated system that----

A Yes.

Q But it doesn't work until it's been set up?

A It needs to be set up, yes.

Q Okay, and are you able to pinpoint or even give an estimate as to when it was set up?

A I think the supervisors were on that pretty much as-- once they started, they were starting to do that but, you know, it was a huge hospital. I don't know how many assets were in there, and we had to kind of create PPM for everything there so that it would-- maintenance would be carried out at the correct time.

Q We have heard from another witness – and that's Mr Powrie – that asset tagging wasn't completed until 2017. Do you know anything about that?

A No, I thought-- No, I don't. I thought Brookfield were tasked with that, with getting-- getting all the asset tagging done, but that's speculation. I don't know.

Q Okay. The reference, for your Lordship's benefit, is page 45 of Mr Powrie's transcript.

THE CHAIR: Thank you.

MR MACIVER: Now, you say you didn't know-- you don't know whether that's accurate or not. If it were accurate and asset tagging weren't completed until two years afterwards, would that have hindered the ability to carry out PPM in the interval?

A I'm not sure it would. I think once the guys familiarised themselves with the thing, you-- we knew where things were. So asset tagging would have been helpful, but I don't think it would have stopped us doing the PPM. We knew that was an air handling unit in that corner. That needed to be done. That needed to be maintained. We would maintain it.

Q Okay, moving onto a few short

questions about individual aspects of the ventilation system. We've already dealt with HEPA filters. Something else that you've raised or that you've spoken about in your questionnaire is about air pressures.

A Yes.

Q Moving on to page 239 at question (h), halfway down the page, the question there is recording you emailing David Wilson of Brookfield in December 2015, stating that the:

> "Pressure in the isolation rooms presenting an unacceptable risk to the vulnerable patients present within these protective environments."

Now, the suggestion in the question is that was an email from you.

A Yes.

Q In fact, on reflection, I understand that might instead have been an email from Mr Powrie. Can you recall one way or the other?

A I think I sent the email to David Wilson.

Q In any event, you're certainly aware of the issue. Is that right?

A I was aware of the issue, yes. I can't remember----

Q Describe to me what the issue was, please.

A I think the pressures weren't as-- what they should have been. I can't remember what the pressures were for those rooms, but they weren't-- and I think the ward staff either contacted me or I got to know about it, and I went up and concurred with the staff that they weren't right. So at that point, I don't know whether we had checked out the system ourselves and were finding that we couldn't resolve it, but I contacted David and, to be fair, he came across and we had a look at it. I can't exactly remember what was done but I think it was resolved.

Q Are you able to explain to me what's the importance air pressure in isolation rooms?

A Well, I think it's positive pressure rooms, so they've got to be-- so the room is-- the room within-- the pressure within the room pushes out into the corridor, so it's not the other way around. So I think it's just for the type of patient that's in the room, it needs to be at a certain level for them to get better.

Q How did you come to be aware that the air pressure was at the wrong level?

A That's what I'm saying. I think the ward staff contacted me. I don't know how it was, but I think I got-- somebody made me aware of it and I went up to the ward.

Q Do you know how the ward

staff became aware of it?

A Well, there's an alarm system on the-- on the-- and the ward will flag it up. The-- There's a gauge right outside the door of each room. There's also an alarm system, so if it goes below a certain level, it will alarm.

Q You told us the matter was resolved once you got contractors in to sort that.

A Yes. I can't remember what they did, but they must have done something back at the plant. I don't know, but it was resolved.

Q Do you happen to know what the cause was? Was it anything to do with the functioning of seals in the rooms for example?

A No, I'm not sure that-- I'm not sure that the seals in that particular room were the issue. I'm not sure because, if that were the case, it would have happened more than once, you know?

Q As for what was actually the cause, do you know?

A I'm not sure of the cause, but I don't recall it being seals in that room that needed to be done, otherwise we could have done that ourselves in-house. If we'd noticed a gap or something like that, we could have sorted that. So it was more than that, I think.

Q Right. This was part of question 175 and it's a long question, I'm not going to take it through you piece by piece, but there are a number of issues where you don't-- you don't appear to have been sighted of or appear to have known about absence of HEPA filters, air change rates, fungal growth and so on. Do you recall this question or do you want to look at it?

A Whereabouts is it in the document?

Q Sorry, let's do it properly then. For example, 238, one-- back one page where it starts. Question B is asking about general concerns around lack of HEPA filters, and your answer is you weren't included in the emails and have no knowledge of this.

A That's correct.

Q And then we have at page 240, (m), towards the foot of the page, is asking about fungal growth and you say you've had no involvement with that.

A Correct.

Q And then back over at 239, there is the issue of air change rates at question (g) halfway down the page. The suggestion being made there is that air change rates was an issue that was raised with you, but you don't recall that?

A I don't recall that and, as I say, I got on very well with Dr Peters and the team so if she'd raised something with me, I would have-- it would have registered with me and I would have

investigated and reported back. I just don't recall that.

Q On two pages at 241, the question there at 176, two-thirds of the way down the page is, "What level of awareness should an Estates Manager and Authorised Person for ventilation have of ventilation issues?" And you've said, "Estates Managers," which you were one:

> "And Authorised Persons will have a good awareness for ventilation issues as they arise to [presumably] be able to direct staff in the appropriate course of action to repair. "

I wonder, can you just explain to me how you reconcile that with the fact that there seem to be many issues that arose to do with ventilation that you weren't aware of?

A Yes. I don't think-- I wasn't aware that there were a lot of ventilation issues that were brought to my attention. I just think everything was going generally all right. If it needed to brought to my attention then it was, and if I needed to escalate that up to Ian, I would. So I just don't-- I think, generally, the ventilation systems worked well. That's my experience.

Q Do you consider that, in your role as a Senior Estates Manager, that you ought to have had more sighting or more awareness of the issues as they were arising?

A Are you referring to any specific issue or just generally?

Q General.

A Yes, I think possibly, as I say, I think they knew the pressure I was under and they didn't want to-- this is my colleagues below me, they dealt with most matters and if it needed come to me it would and, as I say, I was a pretty busy guy at that hospital. I was-- I had my work cut out on a number of fronts. So if I needed to know about it, they would share it with me.

Q In general, you're relying on others to bring to you things that----

A Yes, I am.

Q -- they thought you needed to know?

A Yes, and likewise, I would push that up to Ian if I felt he needed to know about something.

Q Looking back, do you consider that to have been satisfactory?

A Yes, because I had confidence the guys below me-- They were very good, very competent, and they probably had a better awareness of the site than I did overall, and as I say, they were pretty good at doing their job, duty managers.

Q Okay. That brings to an end that particular section of questions, and

we're almost at half past eleven, my Lord, so----

THE CHAIR: Mr Brattey, as I've said, we usually take a coffee break at about half past eleven, so could I ask you to be back for ten to twelve?

A Yes, my Lord.

Q You'll be taken to the witness room.

A Okay, thank you.

(Short break)

MR MACIVER: Thank you. My next section of questions was about chilled beams. We've covered chilled beams in a bit of detail already, but one thing we didn't cover was what, in actual fact, they are. Can you give me, in brief terms, your understanding of what a chilled beam is/how it works?

A Well, to be fair, up until that point, I'd never seen a chill beam before, so-- till working in the Queen Elizabeth. I think it's just a-- It's almost like a radiator in the ceiling. There's no real moving parts, and that's a kind of-- deemed as a benefit to that type of installation because it's silent in its running. So, it's just pipework coming through the hospital linked to that and with things that project heat down-- heat or cooling into the room.

Q In general terms-- You've mentioned in your questionnaire one or two incidents that arose around chilled beams, but in general terms, do you recall whether there was a concern about their use within the hospital?

A No, not a general concern, no.

Q Indeed, you've mentioned the possible advantages of them. In the statement, you say about noise, about low maintenance, that sort of thing.

A Yes, yes.

Q Questions 48 and 49 are on page 199, and that's where I was taking it from, about-- Question 49, you mentioned, "Low maintenance, no moving parts and quieter." Then, at question 50, there was the question we looked at earlier about the frequency of the cleaning regime that became necessary.

A Yeah, yes.

Q Now, the regime that was originally envisaged there at your answer was annual cleaning.

A Yes.

Q Would that have been one of the tasks that was allocated via the PPM system?

A Yes.

Q For how long did you subject the chilled beams to annual cleaning via PPM?

A Once, I think.

Q Once?

A Once.

Q You told us that it became obvious on eyesight that that was not enough?

A Yes. I think the users, more than I, did. They realised-- and both in Infection Control, Dr Inkster, Dr Peters, they noticed that it was-- they were becoming dirty more quickly, and I had to-- we had to, sort of, try and remedy that.

Q What reached you first, the instruction to do the annual PPM, or the indication that there were people who had become unhappy off their own bat?

A That's hard to say. That first year just disappeared, so I don't know if it was one or the other, but I'm not sure about that, what triggered it first.

Q Over the page at 200, at the top is question 51 where you're mentioning a specific event that you recall, a problem with chilled beams, and you mentioned they had a dripping chilled beam in Ward 2A. Could you tell us about that incident, please?

A Well, I think that was-- just as it says there, it was a drip. Water was dripping, and it was coming through a ceiling tile, and it was dripping onto the floor. It was just in a general area within the ward, and I think we had to investigate that. So, again, we had to get the-- I think we had to go through Infection Control, there, because to

investigate, you've got to take the ceiling tile down to get above the ceiling tile, so you don't want just to be doing that in that type of ward without good cause.

Q Is that the sort of work that HAI-SCRIBE would be necessary?

A That could come-- HAI-SCRIBE would definitely come into it in that ward, Ward 2A.

Q Which ward was it? Sorry, you say it's Ward 2A. When was that event, can you recall?

A Well, I think that was-- Oh, it's hard to say now. Probably early on, maybe late '15 or early '16, I reckon. Hard to say, but maybe within the first year of occupation, and what we found was that the coil-- the pipework to the actual coil, coupling had come loose or cracked or something, and water was dripping at that point.

Q Water was actually dripping out of the----

A The fitting, onto the tile, which-- then, the tile was soaked, and then that water had penetrated the tile and dripping onto the floor.

Q Okay. So, lest I be distracted by sub-question (b) – that's eight lines down, there, that refers to dew point controls – this wasn't a condensation issue that you're talking about; this was water coming from within the beams and dripping out of the beams. Is that

correct?

A The pipework that connected-- The pipework came along, and then it was physically connected into the-- I think there was a flexible connection-- there was some kind of connection from the pipework to the coil, and it was the coupling there that was cracked or something, and water was dripping from the coupling. Not from the beam, not from the pipework, but the coupling dripping onto the tile.

Q If we think about chilled beams as having an internal water system, as any radiator would do, are you talking about water coming out of that internal system and dripping down rather than in the case of condensation water coming from the atmosphere?

A It wasn't condensation, it was-- the physical coupling that linked the pipework to the beam was broken, and water was dripping from that.

Q Yes. Okay, thank you. You saw this for yourself?

A I did.

Q What was done about it?

A It was repaired. I think we did that in-house. We repaired it, put a new coupling in or something like that. That was something that we could do. I think-- I'm sure we did that. I don't recall involving Brookfield in that. I think we did that.

Q Thank you.

A Actually, I think Dr Inkster came in there at that point, or she was involved in that. She wanted to see that, because she's in and out of that ward all the time, so I think she wanted to stick her head-- I'm sure she asked me, "David, can you arrange to get a ladder and a torch? I want to have a look at that," and I'm positive she came in there and we arran-- we go with that for-- I have to see that personally.

Q Okay. I'm going to take you to a document just now. It's at bundle 12, page 821, and we see this is the start of an email chain, and it's dated July 2016, and if we look at the email – I'll read out the first part to you – from:

> "Jean Kirkwood had reported to Estates last night that discoloured water had dripped down from the ventilation onto the floor next to a patient's bed. Estates met with us... in Ward 2A to review the issue. In Ward 2A, 4 single rooms (not BMT) are affected but not all to the same degree."

Now, is this the same incident that you were talking about before, or is this a different incident?

A No, the incident I'm referring to was out in the corridor near the nurses station, I think. I'm sure it wasn't in any

rooms. It was out in a general area.

Q Okay, thank you, and, again, to emphasise that, if we read on:

> "Each non-BMT room in Ward 2A has a chill beam in the ceiling and in front of it ventilation grille. Due to excessive heat, air condensed on the beam and dripped onto the grille, then onto the floor. Unfortunately the grilles have not been subject to PPM and some are thick with stour. This turned water black as it dripped down."

So, this would be a condensation issue that's being discussed. Is that right?

A Okay. I wasn't involved in that next part. I was very rarely in that ward, to be fair at my time at the Queen Elizabeth. I tended to be in the adult hospital.

Q Okay, well----

A So, is that the HAI-SCRIBE? Hold on.

Q We'll come on to the later part in a question I'll ask you in a moment, but just to emphasise the point, I mentioned two alternatives before, rather over-emphasising perhaps, but the first issue that you described to me was water coming from inside the system and dripping down. That was the one that you said, I think, was in the corridor. Was that right?

A Yes, yes, that's correct.

Q But this incident that we're reading about now is a completely different type of dripping. This is condensation----

A Condensation.

Q -- forming and dripping down.

A Yes.

Q The additional problem that I read out was that the water was being dirtied on its progress downwards.

A Mm-hmm.

Q So, underlined midway down that block of text is in Estates plan: seal up the room from inside, remove the grille, vacuum and wash, clean the beam, clean materials, remove seals, deep clean.

> "Ward 2A are keen to get those rooms into action ASAP. They need all 4 rooms cleaned over the next two days. After that they need a PPM for all the grilles. Not all grilles seem to have same level of stour/dust in RHC, but it will be worth doing a review of which rooms have them in which wards so they can be part of the PPM."

Then Ms Joannidis says:

> "I have agreed this with the acting lead ICD, SCN and Estates (David Brattey) and will write it up."

A Mm-hmm.

Q Do you recall this?

A I'm not sure that I do. It was indicating that I was going to write it up, or was it Pamela Joannidis was going to write it up?

Q As I read it, it's about agreeing matters with you, among others, and that Ms Joannidis would write it up herself.

Q Yes. I mean, I don't recall specifically, but if I was part of it, then I would have done my part.

Q Do you recall this specific incident or not?

A No, I don't recall it. I don't recall it, no.

Q Elsewhere in the statement – and I don't think I need to take you to this – you've described PPM work as "reactive." Could you explain what you meant by that, please?

A Me saying it was reactive? Whereabouts was this?

Q In this statement. So, we were on, I think, page 200, if I was right, from the statement. If we go back to that, the answer I had in mind is (c), midway down that page.

A (Inaudible).

Q This is referring, in general, to issues with dust collecting in the chilled beam units. The question put to you:

> "Do you consider PPM to have been reactive rather than proactive?"

You said:

> "...initially... PPM was reactive as there were so many chilled beams to be cleaned."

A Yes, I stand by that.

Q Could you explain to me just what you had in mind, what you meant when you say reactive?

A Well, just cleaning as people mentioned to us that a particular chilled beam was dirty and that we needed to clean it, so that's what was meant by that. You know, there was just so many that I think it just came to be known that, "That one was particularly dirty. We need to clean it," and that's what I meant when it was being reactive, but-- We had the PPM in place, but maybe the yearly frequency-- Well, I'm sure the yearly frequency was too long, and that had to be brought in, but----

Q Did you bring it in, or did you continue reacting as particular incidents were brought to your attention?

A Sorry, say that again, please.

Q If it was set down for standard annual cleaning----

A Yes.

Q -- did you bring it into six months, three months cleaning, or did you alternatively respond to incidents one by one as they were brought to your

attention?

A I think we did respond one by one. I don't know how short we could have brought it in because there's 1,100 rooms in that hospital with chilled beams on it. If you brought it into a three-monthly frequency, how could you get round 1,100 rooms in three months? I just don't know how that could have been done. So, getting into a room to clean a chilled beam was-- access was always an issue, because you had you had to have the room free. They definitely had to be out whilst you were in, so that was always an issue. So, you can only clean one room at a time.

Q Well, in relation to that, does it follow from that that the sheer number of rooms in the hospital was itself a problem?

A Yes.

Q You'll be aware the hospital proceeded a single occupancy room basis.

A Mm-hmm.

Q Do you have views on that?

A Obviously, it's great for the patient. You know, if you have a single room, you get better quicker than if you're in a communal ward, but from a maintenance point of view, yes, it was difficult. We could know that we're going into a ward to clean a room or whatever it is, and everything's set up the day before.

We're all set to do it, and I've spoken to the nurse in the ward, the charge nurse, and said, "Right, we're in tomorrow at eight o'clock." "Yeah, that's fine, David. No problem."

My guys turn up at eight o'clock in the morning and the room is filled. I get on to the charge nurse and I said, "What's going on? We agreed." "Ah, we had an emergency during the night. We had to fill the room." So, that happened more often than not, so getting into the rooms to clean was a real challenge. I don't know how it's being done today but, back then, it was a challenge.

Q Thank you. Before I leave the ventilation questions, I just want to go back to one point around carrying out verification of the theatres, and I think we, or I, certainly, got confused a little bit between the words "validation" and "verification."

A Mm-hmm.

Q I asked you if you had seen validation records at the time that you were carrying out verification work in the theatres, and indicated that you had.

A Yes.

Q If we've heard from other witnesses that there were no validation records in relation to ventilation system, what would you say about that?

Q I'd be surprised because, as I say, for the validation, when we realised

that the HEPA filters were failing, I was able to go to the document in the Estates office, pull out the file, and look at the validation figures that were there from the period of installation, so I was able to check what happened a year ago, I guess, to what's happening today. So----

THE CHAIR: We've heard different terms being used. We've heard "commissioning," which is, if I've understood it, carried out by the contractor to check whether a particular item is working, and we've heard about validation again, which, if I'm following it, it's something carried out on behalf of the client----

A Yes.

Q -- by the Heath Board, and is looking at the whole system. Now, when you're talking about going to the Estates office and finding paper documents, for example, in relation to HEPA filters, can you give me an idea of who has prepared these documents and for what purpose?

A I don't know. I don't know the answer to that. It was just documentation relating to that theatre of what went on at the installation, so I don't know whether that was Brookfield or whether it was a specialist contractor. It was just that I could relate to figures at the outset and I could see that we were not achieving those standards at the verification, and that's what led us to believe that the

HEPA filters were faulty. So, verification is the annual process, and validation or commissioning is-- I just took validation as being the initial set of figures at the outset.

Q Relating to specific items of plant?

A Yes, relating to the ventilation system, or the air handling unit supplying the (inaudible) to that particular theatre (inaudible) in relation to that.

Q The document-- I mean, you say you weren't achieving the rates----

A The flow rates going into the theatre----

Q So, this documentation would identify the air change rates, or----

A Yes, so, something like that, my Lord. It's just your initial documentation but I don't know who signed that off, but that was there for me to relate to for verification checks. Sorry, it's hard to explain it.

Q I mean, it's always difficult to explain a document if you don't have it in front of you----

A They'd give you one set of documents at the outset, and I didn't see these documents at the outset. I don't know whether they were handed over to us but, once we started the verification process, I could just put my hand on that file, pull it out, and look the figures in relation to when it was installed and

commissioned. I could see that we were not achieving that at the verification, and that's what led to the HEPA filters needing to be changed.

MR MACIVER: Okay, so, it was the actual words that I was focusing on beforehand; might it be that these were "commissioning" documents rather than "validation" documents that you were looking at?

A Yes, could be, yes.

Q Okay, and moving on to water matters, your duties also involved you working with the water system in the Queen Elizabeth. You told us about that at the very outset. Now, just a couple of specific water matters I'd like to ask you about. The first one related to authorised persons for water. Were you ever an authorised person, or a responsible person, for the water system at QEUH?

A I don't think I was.

Q Do you recall that there was, at some point, a suggestion that Tommy Romeo might take on the role of authorised person?

A I don't remember that, to be honest. I don't recall that. Who would that-- No, I don't recall that.

Q Okay.

A He was electrical as well, so I'm not-- although that shouldn't make any difference, but, no, I don't recall that.

Q Okay. The second matter relates to later on in the statement at page 227. You're discussing the Board Water Group at this point in the statement, and at the top of the page you mention that the purpose of the group is to commission and develop a water safety policy, water safety plan, including a risk assessment. At the bottom of the page, at question (f), you're asked to explain any issues discussed by reference to the Water Safety Group bundle that you're referred to, and you mention in your answer discussions around water safety plans, schemes and audits, Legionella, sampling bacteria within the shower heads, and bloodstream infections, and then over the page at (g)-- 228, please. You're asked:

> "To what extent, if any, was this within your remit within Estates?"

And your answer to there was:

> "It wasn't within [your] remit within Estates however [you] became aware through discussions with Ian Powrie... [You] do recall meeting with Veolla along with Ian regarding a new water plant for Renal Dialysis and also meeting a representative from one of the shower head companies. [You] believe we did purchase a batch of disposable shower heads."

Now, taking those two answers together, can I ask you-- what do you recall about the bacteria that were found in the showerheads? Do you recall what they were?

A I don't recall that. I don't recall that particular thing.

Q And as regards to any sampling that was done at the time, do you recall anything about the results of that sampling? What was done with them?

A No.

Q All right.

A I don't recall that.

Q Were you involved in doing the sampling at all?

A I don't think so. I don't recall it (inaudible).

Q Moving back to page 207, the context here is different. It's about testing and maintenance of the water system. At question 79, you're asked about what testing and maintenance protocols and regimes were in place, and you mentioned SHTM 2027 and 04-01, which is the water guidance. Is that right?

A Yes.

Q So, in short, your answer here is that what was done was carried out accordance with that guidance. Can I ask what happened after the testing was done? Specifically, where were testing results recorded?

A Yes, they were recorded.

Q Where would they be recorded?

A They'd be on a performer sheet that would be made up and then it would be held in the Estates office or the supervisor's office. They'd be held in-- It was a hard copy.

Q Did you carry out any testing yourself?

A No.

Q Who did the testing?

A The technician staff would be doing the testing. They're the trained operators.

Q Were the results brought to you to examine?

A Not always. Again, if there was an issue or something like that, it would be brought to my attention. I don't recall many issues there at all. I just knew it was being done, and there was a log book there that I could go and look at if I needed to.

Q How would you go about analysing whether there was an issue that needed attention?

A Well, as I say, it would probably be brought to me and then we would investigate, you know. I'd go and have a look at it, or the supervisor or the technician. Generally, they would get involved first and then if it needed to come to me, it would come to me. It

would go through the duty manager and then, if they felt I needed to see it or whatever or investigate further, then we would.

Q Again, are you reliant upon people below you deciding this was something you needed to know about?

A I am, yeah, and I had full confidence the team below me-- they were very competent. They were very good. They got on with the work.

Q And if you looked at the results and decided, yes, there is an issue, then what happened?

A We would remedy that. We would try and see what the issue was, and we would get a job-- get work lines created to repair or sort out what the issue was. Timeously, we would do that.

Q Would you refer matters to anyone else?

A No.

Q And, finally, this is largely for completeness at page 220. For clarification, question 117 is in reference to things being done with DMA Canyon in 2017, and you say that-- I don't think you were involved with that, but in 2017 you were involved in getting a workshop built within Plant Room 33 to test thermostatic mixing taps on mass.

A Yes.

Q Might it have been the case that, rather than testing, that this

workshop was designed to clean taps?

A Clean?

Q Yes.

A Clean.

Q Do you know why this was happening?

A Well, it was to do a number of taps at the one time with this stainless steel sink arrangement that was, I think, purchased right at the outset of the hospital. I don't know where it came from, but that was always going to be installed into a location that we could find within the hospital that could allow this to happen. So that's what that was. It was to allow you to put, I think, four sets of taps hooked up to this pipe work, and then be tested through with hot water to flush it through, make sure it was all (inaudible), and it was to do multiple taps at the one time. Then they would go into stock as being deemed fit for purpose, and then we would change them over as required.

So, that kicked off in 2017. It was tricky. It was trying to find a suitable location within the hospital, but Plant Room 33 was the biggest plant within the hospital, so we managed to get a location there where it was fairly close to the hot water services and the like. So, it started in late ’17, as I said. I think when I left in ‘18, it was pretty close to being completed, but I'm not sure that it was up

and running by the time I left.

Q Okay. Thank you. That question arises-- That's part of a longer section about questions relating to DMA Canyon. I'm going to come on to that just now. If we go back to page 216, please. That should be where it starts. So, you'll see here that this is where the questionnaire starts discussing the DMA Canyon 2015 report. Now, you're familiar with that report, I think.

A Yes, I saw it at the time, I think, and I haven't really seen it since then. I had a quick look at it this morning. I was unable to download that from my question stuff in the bundle. So, I found it difficult to download information without my iPad crashing. So, I had a look at the document this morning before I could come in.

Q I'll take it to you it very briefly in a moment, but over the page at 217, question 111 is about a meeting:

> "Our investigations indicate that you attended a meeting with DMA Canyon, Ian Powrie and James Guthrie following Ian Powrie's receipt of the DMA Canyon [report, that should be] 2015."

Do you recall this meeting?

A Yes, I think I was there. I mean, I was obviously there. I don't know the exact date, but it must have been soon after the report was received. That's---

Q Do you recall where it was?

A It would have been in the Estates office. It was probably in Ian's office.

Q Can you recall what was discussed?

A The report. Just the report in general.

Q Can you remember what was said about it?

Q No, I can't really recall what was said, but obviously there's, maybe, actions required, but I just can't remember exactly what was said.

Q Okay. I'll come back to the report in a moment but, first, perhaps a slight tangent. Three pages further on that question 119, there was a specific suggestion put to you that Infection Control were only advised about the 2015 report in 2018, and you're asked, "Why were they not told sooner? What happened?" Your answer there was:

> "I don't know why they were only advised... in 2018. I thought they would have known about it sooner, as they attended meetings within the Estates office on a regular basis."

Now, there, are you indicating that the 2015 report was discussed at those

meetings between Estates and Infection Control?

A No, not necessarily. I just assumed that they would have known about that report. I can't understand how they wouldn't have known about it because Infection Control were kind of an integral part of these meetings. So, I just can't understand how they didn't know about it.

THE CHAIR: Sorry, it's entirely my fault. You were referring to meetings involving people from Infection Prevention and Control.

A Yes.

Q Now, my fault, Mr Maciver, but I'm just not keeping up with this. (To the witness) When did the-- Are you talking about regular meetings?

A Yes, I thought we had regular meetings, and there was always an Infection Control presence like-- It wouldn't necessarily be the senior person there, but an Infection Control nurse was generally at these meetings, and I'm sure that was the case.

Q So----

A That's what I can remember. It was just----

Q So, you're referring to your memory of a regular meeting in which you were present at and an Infection Prevention and Control nurse?

A Yes, I think the whole kind of-- I think that those kind of meetings were chaired or-- like, the general manager was there or somebody from-- you know, general manager of Estates was there, Ian Powrie was there, I was there, other Estates officers were there. I'm sure there was Infection Control at one of these meetings as well. Positive. I think you'll have an Infection Control nurse (inaudible). That's what I can remember.

MR MACIVER: And also, in your memory, are these meetings at which the 2015 report was being discussed?

A Sorry, where's that, please?

Q I'm not referring to the statement at this point. I'm inferring from-- or trying to draw your answer, really.

A Yes.

Q At these regular meetings that-- In your memory, are these meetings at which the 2015 report would have been expressly discussed?

A Yeah, I think it would have been. I can't remember. Just-- The meetings were regular. There was loads of things discussed at these meetings. I'm not sure they were just particularly relating to water, but that's what I can remember. I didn't attend all these meetings, by the way. If I was, you know-- I attended a lot of them, but I didn't attend every single one.

Q So, you're memory-- in any event, the 2015 DMA report would have

been a regular subject to discourse in the Estate's offices among the Estates team?

A Mm-hmm.

Q Yes. The specific meeting I started off asking about was the one that you'd referred to with you, James Guthrie, and DMA Canyon had been together. We've heard from Ian Powie, and the reference is page 59 of his transcripts, my Lord. Ian Powrie had said that he'd expected, following that meeting, that you and Mr Guthrie would come back to him with a written scheme or action plan to have been populated with the points that DMA had raised in the report. Do you accept that?

A If they asked us to do that, then yes.

Q And you also indicated that you and Mr Guthrie did prepare the bones of such a scheme or plan, but you'd lost sight of it. Do you recall doing that?

A I don't recall doing a specific thing, but I know that Jim Guthrie worked well with me in that. I can't just remember. I'm sure we would have provided Ian with something, but I can't recall all the ins and outs of it. Sorry.

Q Right. I'd just like to be clear on what you actually recall and what you are surmising from what other people have said. Can you recall being tasked with preparing a scheme to tackle the 2015 DMA recommendations?

A I cannot recall being asked to do that, specifically from-- I don't recall that coming down as an instruction.

Q Can you recall actually doing it or starting to do it?

A I can't remember exactly what would have been instructed for me to do, but had I been instructed, I would have done it, you know. So I'm very-- I've just not done it. I would have done it-- If you'd asked me to do something, I would have done it. Simple as that.

Q We can perhaps look at the report if we need to but, in general terms, the report contains a long list of (inaudible) in terms of the water system. Is that, in general terms, your understanding?

A Yeah, I think there was some stuff that needed to be done. Yeah.

Q You can't recall being tasked with doing that stuff?

A No.

Q To cite an example of what the-- that sort of stuff might have been, could we look at the report itself? It's at bundle 6, page 122, and if we go over, as an example, to the top of page 138, you'll see here the first box is about dealing with domestic hot- and cold-water outlets, and just to read the first paragraph as an example:

"The distribution temperatures on the domestic water systems recorded by DMA have largely replicated those provided to DMA (on Zutec) for the commissioning phase and those being recorded by estates staff. The cold water temperatures recorded by DMA vary considerably with the majority being more than 5 degrees higher than those recorded at the water tanks and with peak temperatures of 30 degrees being noted. Additional control measure such as flushing, disinfections and background dosing flushing should be implemented until such times as the area/department fully occupied, storage and distribution temperatures and microbiological results are consistently satisfactory."

Now, you've told us earlier this morning that you were aware of guidance including the L8 guidance. That's Legionella guidance. Is that correct?

A Yes.

Q And are you aware, as part of that, that temperature is an important factor when it relates to Legionella? So the passage I've just read out, is that the sort of thing that concerned you at the time in 2015 when the report was issued?

A Yes, it probably did, 30 degrees is too high for cold water.

Q What did you do about that?

A I don't know what I particularly did about that, but I know that we'd probably have to flush the tanks out to get the temperature down, bring fresh water in to get it to 20 degrees or less.

Q What I mean is-- What I'm getting at is that, given your background knowledge of water systems, of Legionella, of the risks posed by high temperatures and given that you had seen-- discussed this report, a passage such as this that raises a specific problem in relation to temperatures, is that the sort of thing that ought to have provoked you to do something?

A Probably, yes.

Q And did you do anything?

A I don't know. I can't remember back to that-- that-- but I must have done something. I must have. I couldn't have-- We couldn't have just sat and said, "That was fine. Let's just go along with that." We must have done something about it but, you know?

Q The meetings that you're recalling, whether that's the first meeting with Mr Powrie and Mr Guthrie or the later ones relating to involving Infection Control and so on with the report—where you recall the report being discussed, were these-- were points such as this brought up?

A I can't remember what

happened at these meetings, but I'm sure, you know, major points like this would have been brought up. We would have been discussing this. I'm sure we would have been doing that. That's what the meetings were all about, but I can't-- I mean, it's nine years ago. You know, I can't remember exactly.

Q Now, are you aware of any specific action having been taken by you or anyone else?

A No, I can't remember. I can't remember.

Q With regard to this temperature issue?

A No, I can't remember exactly.

Q If we go back to your statement, 217, you'll recall was where question 111 started, and at the foot of that page at (iv), you-- is the question I put you earlier, “Did you have a responsibility to develop an action plan?”

A Sorry, what question is that?

Q Two-thirds of the way down the page, (iv), "In respect of the DMA Canyon meeting..." do you see that?

A Oh, yes.

"... with Ian Powrie and Jim Guthrie, did you have a responsibility to develop an action plan?" You said you don't think so.

A Yes, I stand by that. I don't know whether I did-- I was asked to do that. I'm not-- I just can't remember. If I was, I would have done it.

Q And I mentioned something about bare bones of the plan. Might it have been the case that the bare bones were done by DMA?

A Well, DMA were back on site on a number of occasions, but-- I can't remember, but certainly----

Q And if that were the case, then when it came to populating an action plan with actual details of work to be carried out, can you recall being tasked with doing that?

A I can't recall being tasked with doing anything in-- regarding that, but I'm-- you know, if I was, I would have done it. It's as simple as that.

Q Would you have taken any action in your own initiative to sort out any of the points raised in the report?

A I honestly can't remember. I really don't recall that-- doing stuff like that. As I say, I'm sure if actions were pushed down in my direction, I would have carried it out, you know?

Q So does it follow from that that you wouldn't see it as your own responsibility to tackle this report without someone telling you to do that?

A No, no, it was just such a busy-- I'm going to go back to say I was such a busy person on that site, that I had my hands full.

Q Over the page at 218, there

are further questions about-- and the action plan are the first two in (ix), "What works, if any, do you recall carrying out," and you've said there you don't recall being asked to carry out any works in 2015 but you make reference to minutes from November 2017, and a written scheme underway then. There's question (x) at the foot that I'm interested in, because the question there is that we:

> "Understand that you gave verbal feedback to Ian Powrie that the works were being carried out. Do you agree with this? If so, what works were carried out by and when in respect of the 2015 report?"

You've said again there you:

> "Don't recall what piece of work I was asked to do. However, if Ian Powrie said I gave him verbal feedback, then I must have done so."

What do you understand-- in that question it makes reference to works were being carried out. What do you understand the question to be asking there? What works is it referring to?

A I do not know. I don't know what work is being referred to. I don't know whether it's the-- getting that installation started. I don't know if it was that or not, but----

Q So in your answer, you're prepared to accept that Ian Powrie-- take Ian Powrie's word?

A Absolutely.

Q But in actual fact, you don't know what that word was about?

A No.

Q Moving on to page 220, your question 118. The question there's a short one, "What was the impact, if any, of the failure to implement the 2015 recommendations on patient safety?" And you've said you don't think there was any impact. Do you see that?

A Yes.

Q Now, in light of the passage I read to you about water temperatures rising up to 30 degrees in some cases, would you consider that to be a safety issue?

A Yes. If it's above 20 degrees, it's not ideal.

THE CHAIR: So setting aside or taking account of the fact that you don't appear to be able to recall which, if any, works were done in 2015 or thereafter in response to the report, the hypothesis that the question is predicated upon is that there was a failure to implement the recommendations that were in the report. Would you accept that if one of the recommendations was, for example, "Bring the temperatures down," and that wasn't done, then that must have an impact on patient safety?

A Yes, I agree with that, but I'm sure that we would have acted on the high temperatures and did bring them down. I can't believe we would have left them there at 30 degrees.

MR MACIVER: Now, just moving on from this particular report-- just before we do, do you recall ever seeing a quote from DMA to carry out these works?

A No.

Q If there hadn't been a quote given, would it have been within your responsibility to approve a quote like that?

A It could have been. It could have been Ian's. It would have fallen to me to action it-- authorise it. I would have-- if it was within my remit to authorise it, I would have authorised it and got the work done.

Q But you don't recall ever seeing such a quote?

A I don't recall that. I think, to be fair, I think Ian was dealing a lot with DMA Canyon, getting them on site and things like that. When they came on site they would always put their head into my office and say, "We're on site, David," or whatever it was, but I don't really recall bringing them onto site myself. I think it was Ian that kind of did that generally.

Q Thank you. Could I bring up another document please, it's the next one in that bundle, bundle 6 at page 416

is the 2017 DMA-- their second risk assessment. I think we've got it clear that you don't-- you simply can't recall what work or if any work was done in relation to the 2015 report prior to 2017. Would that be fair?

A Yes, I think so. Sorry, what question number are we on? Sorry, that was just a----

Q I'll take you to page 597, please, of this bundle just now because it's one specific example of something recorded within this report. It's a gap analysis meeting which you are recorded as being present in January of 2018. Do you recall that meeting with DMA then?

A I don't recall specifically that. I mean, I was-- although I was there, that was in the January (inaudible).

Q So, just to look at a couple of points from it then. In the paragraph, second paragraph in the main text, "Where Estates have advised…" do you see that?

A Yes, I'm reading that.

Q It says that:

> ""Tasks are being completed, records have not been made available for inspection by the time of issue. We would advise these are made available to establish the level of compliance achieved where tasks are being completed. ”

So, what's being noted here is that there's not enough evidence, in short, for DMA to satisfy themselves that what needed to be done has been done.

A Right.

Q Is that your reading of it?

A That must be the case, yes.

Q Are you aware of whether that was addressed subsequently?

A No, because after that, I was only in a handful of days for the remainder of the year. When it came into February '18, I was only on-- I was on a three-day week at that point and I still had holidays to take, so I was only in for about seven or eight/nine days in February. I can't honestly remember if I was part of that ongoing thing in February.

Q Okay. Well, two paragraphs below that we've got a different issue:

> "The estates manager placed in the role of 'AP Water' has not undergone any training in Legionella control (or other bacteria) and has limited knowledge of the water systems on site and requirements of the guidance. "

A Yes.

Q Are you aware of who that was?

A No, no I don't-- no, I don't know.

Q Was that a matter of concern to you when it was discussed?

A Well, I'm sure they were active with trying to get up-- an AP up to speed, but I don't know who it was. I don't know whether it was, as you say, it might have been either Tommy Romeo or others. But yes, we needed to get the AP in place as soon as possible.

Q In the paragraph below that:

> "It is unclear which responsibilities lie with which departments and to which persons within these departments. It is also unclear which responsibilities lie with site Estates and which lie with NHS GGC compliance team."

That's an observation more on the state of things within governing the water system at the time. Would you agree with that assessment?

A Well, to be honest, I didn't know about the NHS compliance team. I didn't know how that was made up.

Q The essence of the paragraph, as I read it, is that the concern is it's simply unclear who has responsibility for what. Is that something you would agree with?

A Yes, I would agree with that.

Q Was that a matter of concern to you given you were still part of the team at that point?

A Yes, it would-- Yeah, it would

have been a concern, yeah.

Q Below that, there's a paragraph about:

> "Written scheme guidance issued in 2015, though not as updated as anticipated, to be fully utilised as a written scheme for site and become the overarching control document for Legionella control."

And it notes that:

> "A general written scheme has been issued, [but that] we [DMA] are awaiting feedback, and there's a draft document out for discussion at the moment."

Firstly, are you aware of the significance of a written scheme for the water system?

A Yes.

Q Yes? Do you know whether one was put in place subsequently to this meeting?

A I don't know if there was.

Q The last sentence on that page would describe the Legionella management on site as being:

> "High risk until remedial actions highlighted within the Legionella risk assessment and within this gap analysis are implemented."

It's clear from that, would you agree with me, that DMA are highly concerned here that the Legionella position is not satisfactory?

A Yeah.

Q And was that a matter of concern to you at the time?

A Absolutely, yeah. We wanted to bring it-- We wanted to go from red to green, as-- We wanted everything to be absolutely fine.

Q Had it been a concern to you over the previous two years?

A Yes, it probably was-- Yeah, it was, but as I say, I was not solely honed in on the water. I was just doing 101 other things, and that just bypassed me, I'm afraid.

Q I understand that, but looking back on it, with hindsight, is this the sort of thing that you should have been doing something about?

A Yes.

Q In relation to this specific meeting, would you agree with me that DMA must have been expecting that things would have been done after this?

A Yes. Yes.

Q Did you do anything in response to it?

A From January----

Q Throughout 2018?

A No, because I was practically not there for the next two months.

Q Setting that to one side, what was and is your reaction when you read a

sentence such as this last one?

A Disappointed that we have not actioned or done what we needed to do, and it had taken such a long time for DMA to highlight it on a second occasion. I mean, that's not good, not ideal.

Q Okay, thank you. My last set of questions is about something complete different; it's about pigeons.

A Yes.

Q Were you aware of a pigeon presence at the Queen Elizabeth?

A Yes.

Q When did you become aware?

A I was aware when I joined, when I went to the Southern General in 2014.

Q How did you become aware?

A They were everywhere. They were everywhere. They were getting into attics in the old buildings. They were contaminating that. They were everywhere. They were getting into the lab block where my office was. They were coming in through the loading bay. They were everywhere.

Q Were you aware of them as an infection risk?

A Yeah.

Q Are you aware of something called Cryptococcus?

A I know what that is now, I didn't come across that at the time, but----

Q When you moved over to Queen Elizabeth in April 2015, how long did it take you to appreciate that there was a pigeon problem there as well?

A I'm not sure, I think people were just saying to me, "David, I think there's pigeon droppings in some of the plant rooms," and I said, "Right, okay, I'll deal with that, I'll get the company out," and-- Yeah. It wasn't, maybe, right away, but certainly after, as we moved on, it just became more apparent that there were more of them getting in everywhere.

Q How frequently did this come across your sight, your mind, to your attention?

A It was regular. I knew I had the pest protection company out on a regular basis. I-- They were everywhere, as I say, and some of the exposed-- We had a plant room on top of the children's hospital which really didn't have a, kind of-- a roof on it. It was all extract systems that were just open to the elements, and pigeon droppings in that area were just horrendous.

Q Did you report to anyone else?

A I think everybody in-- The whole of the Estates hierarchy knew that there was a pigeon problem. It wasn't just-- I didn't need to report it to anybody, they all knew.

Q Now, you mentioned that you actually took some action about this.

A I did. I was the one that was-- I dealt with the contractor. I called him out. I walked the job with him. I said, "This needs to be cleaned. We need to find these birds and get them out," the ones that were still alive, some ended up dead lying on the floor. We had to get them out, get the room totally cleaned, but they were back in again, you know? They were getting in. I don't know how the heck they were getting in, but they were not getting-- folks said they were getting in through openable doors. Well, that just was not happening, because these doors out from the plant rooms were-- you had to unlock them from the inside and open them out against a heavy door closer. There is no way that pigeons were getting in at the point those doors were open, but they were getting in some other way.

Q You mentioned plant rooms as one of the locations where there was a pigeon problem. What was in those plant rooms?

A Air handling units, all-- Everything. Water, you know, pumps, all-- everything to do with running the hospital. There's equipment there, distribution pipework, electrical cables, electrical-- Everything was in those plant rooms. They were getting in, and they tended to nest on high level stuff, so the cable trays at high level, they were

nesting on that, and----

Q When you say they're getting in, are they getting into the equipment that's inside?

A No, no, they're not getting into the equipment, but they could be fouling some the equipment, you know, their droppings landing on equipment, but not getting into equipment, if that makes sense.

Q What's specifically your concerns about this?

A Possibly infection, maybe, further down the line, but we just had to get these pigeons out and and get the area cleaned.

Q What work did that create for you?

A Involving the pest protection contractor to come in and remove these birds and then clean up the room.

Q Okay. If we can look at what's likely to be the last document, bundle 24, volume 1, at page 83. Now, you referred to getting a contractor in, and here's a report from GP Environmental, "Works requested by David Brattey," in the second row of the boxes there, and the date is 24 March 2017. Is this the instruction that you're talking about, having got pest control in?

A That would have been one of them. As I say, pest protection were in on a fairly regular basis.

Q When they came in, would there always be a report like this, or is this report indicative of the start of a relationship?

A I think they would do a report. They would tell me verbally what they'd done, and I would probably go up with them and say, "Right, let me have a look, make sure everything's okay," and then something would follow-- a report would follow up-- a follow-up report, rather, but generally I would go up-- I wanted to be satisfied myself that the room had been cleaned-- cleared.

Q Was there anything specific that prompted you to get pest control out, or was it simply everything that you saw prompted it to happen?

A Well, I don't think we were qualified, or any of us could-- competent to clean. We didn't have cleaners, as such. They were-- We didn't have experts in that field, so pest protection were the team to get out and get the birds out and clean up.

Q Okay. So, just to conclude by looking at the report, paragraph 1(a) is summarising what you've told us:

> "Pigeons have been accessing the plant rooms and walkways on the roof the main hospital building. This has resulted in a heavy build-up of pigeon fouling on the ledges, beams, walls, floors, and walkways of the plant rooms. The birds have free access to these areas as the roof area is exposed. "

That's in accordance with what you started out telling us.

A The only-- That's not-- In general terms, all the plant rooms are-- the rooves are sealed. We've got a couple of areas in the roof where we've got extract systems and the pipework just goes to the atmosphere, so those areas are not covered, but generally, all the plant rooms are covered.

Q Okay. The picture on that page, where's that showing? Is that the roof----

A That's a plant room.

Q What are those ducts that are in the picture? Or piping? Perhaps I've got it the wrong----

A That's just-- That would be hot and cold water. That would be heating pipes, hot water distribution pipes, stuff like that.

Q It's an example of a water system?

A Water systems, yeah.

Q Pigeons being near the water system. If we skip on two pages to 85, the narrative here, again, I think is in accordance with what you told us:

> "This fouling issue poses a

serious health and safety slip risk to anyone needing to use the plant room. In addition to this, pigeon fouling is not only toxic, but provides a breeding ground for mites and insects which may ingress into the building."

Agree with that?

A Yes.

Q "This fouling is a result of birds gaining access to the plant rooms and walkways as this area is exposed to the outside. "

And here you made a distinction between plant rooms and walkways. Is that correct?

A Yes.

Q In that plant rooms are internal, walkways external?

A Sorry, say that again, please?

Q To summarise, plant rooms are inside, walkways are on the roof or outside. Is that right?

A Yes, yeah.

Q So, it says:

"This provides an attractive, quiet, safe space for the birds to roost and perch. There are also various gaps around the plant rooms which allow bird access."

If we look at the second picture there, there's a brighter square in the middle, and the tag there says, "Gaps in plant rooms allowing pigeon access"?

A Yes.

Q See that?

A Yes.

Q So, you said a moment ago you didn't know how they were getting in, but they were getting inwards along that line. This report, in actual fact, is identifying a point of entry, or purports to be doing that. Would you agree with that?

A (No audible response).

Q If we go on to the next page, please, 86, the second picture here-- Again, I don't know how much you can tell from this, but----

A I don't think that's a gap to the outside. That's a gap maybe into another area. I don't think that's a gap to the physical outside. Similarly with the other one, that small gap, I don't think that was a gap to the outside, that was a gap to maybe another part of another plant room that might have been brightly lit, but I don't think that was-- I don't think in any of my times walking around I could physically see a gap that took me to the outside. So, my-- you know, so that looks as if that's what that looks like, but I don't think that was the case. I think that was a gap leading to another area within the roof space.

Q From your recollection, then, gaps from outside to inside, or routes

from outside to inside, are still a mystery. Is that right?

A Yes.

Q But there are gaps between rooms within the hospital that pigeons can get through?

A Still within the attic space, still within the plant room environment. Not into the hospital as such, not into the main areas. This is all at plant room level.

Q Okay, so, you're describing something like a maze between plant rooms----

A Yes, yes.

Q -- but there's no connection between the plant rooms to the rest of the hospital?

A No.

Q The narrative at the bottom of the page is some recommendations:

> "Initially we recommend full deep cleaning and sanitisation of all fouled areas, beams etc., using biocide sanitiser, removing the fouling, and the areas would then have a repeat clean of sanitiser to keep clean and leave the area safe for use."

Then, a separate recommendation:

> "To prevent the pigeons roosting here, we recommend the installation of bird repellent net systems to various areas of the plant room and walkways to completely exclude the pigeons."

Then it goes on to describe those nets.

A Mm-hmm.

Q Did you see to it that those recommendations were carried out?

A I probably did. I mean, I can't remember, but anything that we could do to stop this happening, we would have done it, no question about it. But nets are a kind of temporary thing. These birds find their way through these nets. So, I don't know how effective netting was ultimately.

Q So, just to summarise your answer, you expect that these works were carried out, but you can't actually remember having done it?

A Correct.

Q Another matter, can you recall-- The report has spoken of cleaning up the fouled areas. Can you recall whether pressure hoses were ever used in order to do that?

A I can't honestly remember that. I tended to leave the pest company just to do it whatever method they were doing it. I didn't stand over them, but they came back to me and told me that it was done and then I would-- nine times out of ten, I would head back up with them and have a look at it, at the work.

Q Thank you. My Lord, that's my last question for this witness.

THE CHAIR: Thank you, Mr Maciver. Now, Mr Brattey, what I need to do is check whether there's any additional questions in the room, so what I'll do is I'll ask you to return to the witness room, and we should be able to call you back within the next 10 minutes, either to answer any additional questions or to have it confirmed that there's no more questions. So, if I could ask Mr Brattey to go to the witness room.

(Short break)

THE CHAIR: Mr Maciver.

MR MACIVER: My Lord, I have four additional questions. I think they'll be very contained, so my preference would be to deal with them now.

THE CHAIR: All right. Well, I'll ask Mr Brattey to come back and ask him these questions. Perhaps another four questions, Mr Brattey.

A Okay.

THE CHAIR: Mr Maciver.

MR MACIVER: Thank you, my Lord. Now, the first three of the questions relate to pigeons, which we've just dealt with. I neglected to ask you for how long pigeons had remained a problem at the hospital?

A The whole time I was there.

Q Second question relates to what you told us about walking the job, physically, with the GP Environmental when they came out.

A Mm-hmm.

Q What areas did you do the walk around in?

A Most of them. The plant rooms and the roof, where the exposed pipework was. I went on to that roof as well.

Q So, it's the areas that were mentioned in the report itself, plant rooms and roof?

A Yes, yes.

Q Anywhere else in that you took them to?

A I can't think there was any other locations. It was generally the plant rooms and the roof where these exposed pipework was. I can't think of any other areas. Do you mean in the whole site, or just the big hospital the kids would (inaudible)?

Q Generally, when they came on their visits to look at the pigeon problem----

A It was generally----

Q -- where did you take them to?

A The plant rooms of the adult hospital, and the exposed pipework above the Children's Hospital.

Q Are you aware that GP Environmental had done another report,

or another deep clean in the hospital, around X-ray facilities?

A The X-ray? No, the X-ray is on the ground floor, if my memory serves me right. I've just got to think back now. No, I can't recall that, being in-- What time? When would that have been?

Q I'm afraid I don't have the details of the date----

A I don't recall that. Any time I was involved with (inaudible), it was plant rooms and walkways.

Q Okay. So, if that happened, would it follow that that was someone else that got that work done?

A Possibly, yes.

Q Lastly, on the pigeons issue, did you ever mention the issues with pigeons to Infection Control?

A I don't think I did. I think they knew about it, if you know what I mean. Everybody on this site knew that we had a pigeon issue.

Q Okay. My last question's quite different, and it goes right back to the start of your evidence when you mentioned the issue relating to the in-window blinds where the mechanisms had failed. Can you recall, were those blinds and failures within the isolation rooms as well as within regular wards?

A I can't honestly remember that. I think it was just generally across all floors. It was quite a big issue, but I can't remember exactly if it was in those rooms as well.

Q If you can't remember exactly, then maybe you might or might not be able to help with this question, then. Do you recall, when any of those replacements were being done, whether air pressure ever came up as an issue?

A Sorry, I can't.

Q I think that's enough on that point, my Lord.

THE CHAIR: Thank you, Mr Maciver. Mr Brattey, that's the end of your evidence and you're therefore free to go, but before you go, can I thank you for your attendance today, but also the amount of work that will have been involved in preparing your witness statement and reading documents? So, can I just repeat my thanks for that, but you're free to go. Thank you.

A Thank you, my Lord. Can I take that I just-- Does this remain? This question set, is this meant to go?

UNKNOWN SPEAKER: It stays there.

A It stays? Right, okay.

UNKNOWN SPEAKER: You can (inaudible).

A Right okay. Thank you.

UNKNOWN SPEAKER: Please stand. Oh, sorry----

(The witness withdrew)

THE CHAIR: Well, just to confirm, I would propose that we sit again at two o'clock rather than-- and I appreciate that's a rather shorter lunch break, but unless that's inconvenient for anyone, we'll work on the basis that we'll start again at two.

(Short break)

THE CHAIR: Right, I think we're near to proceed?

MR MACKINTOSH: Yes, my Lord.

THE CHAIR: Good afternoon, Ms Pritchard.

THE WITNESS: Good afternoon.

THE CHAIR: As you know, you're about to be asked questions by Mr Mackintosh, but before you do that I think you're prepared to take the oath?

THE WITNESS: Yes.

Ms Lynn Pritchard

Sworn

THE CHAIR: Thank you very much, Ms Pritchard. Now, I don't know how long your evidence will take, but if you want to take-- and I say this to all witnesses: if you want to take a break at any point, give me an indication and we'll take a break.

THE WITNESS: Thank you.

THE CHAIR: Now, Mr Mackintosh.

Questioned by Mr Mackintosh

Q Ms Pritchard, I wonder if I can take your full name?

A Lynn Rosina Robb Pritchard.

Q And your current occupation?

A Nurse consultant with the Infection Control Team within Greater Glasgow and Clyde.

Q Thank you, and did you produce a statement for the Inquiry?

A I did.

Q I understand you want to make a minor change to it.

A Please.

Q Could you tell me which paragraph that relates to?

A That is paragraph 10.

Q So, we might put this on the screen to assist our colleagues, and that's on page 263, and where's the change that you'd like to make?

A The bottom of my answer. I have put June 2016. I'd like that to be changed to June 2018.

Q Oh, I see that. In the middle of the page?

A Yes.

Q So, with the change from "BMT moved back to Ward 4B in June 2018," with that correction, would you be willing

to adopt your statement as your evidence?

A Yes.

Q Thank you. Now, if we take that off the screen, firstly I want to make sure I understand what your roles were in the years we're interested in. So, from October 2015 until September '22, you were the lead Infection Control nurse for the south sector.

A That's right.

Q Now, am I right in thinking that would have effectively made you, in practical terms, the lead infection control nurse in the adult hospital of Queen Elizabeth?

A Yes.

Q Right, and then from September '22 you moved to your current role?

Yes.

Q And does that current role of nurse consultant give you a generally roving role over the whole of the health board area?

A Yes, it does.

Q And to help us understand the dynamics of the team, were you effectively taking over from a role previously held by Sandra Devine?

A No.

Q No. Who was your predecessor?

A So, previous to me taking over the role, the role was held by Kate Hamilton and, prior to that, Pamela Joannidis.

Q That's very helpful. That connects us to some evidence we've already heard, because we've heard from Pamela Joannidis. Now, between October '15 and the end of 2019, would you have had any particular general responsibility over the children's hospital?

A No.

Q No. Might we see, as we go through some of the documents, that you were involved in some of the events that happened at the children's hospital?

A Yes, although I didn't have any responsibility for the children. The children moved into two of the adult wards for a period of time, but I still didn't have responsibility for the children there.

Q That's very helpful. So, when the patient cohort in Ward 2A in the children's hospital were decanted into Ward 6A, and if they required it Ward 4B in the other hospital, effectively did they stay within the children's hospital team?

A They did.

Q So, when the Inquiry is looking at IMTs around Ward 6A in 2019, the lead Infection Control nurse for that series of events in Ward 6A is the children's lead nurse, Infection Control nurse.

A It is.

Q And that at the start of the year would have been Susan Dodd.

A Yes.

Q Thank you. Right. Now, I want to just check, because we've been asking everybody really, what experience do you have in the operation and management of water and ventilation systems from an infection prevention and control point of view?

A I don't.

Q You have no particular extra training or courses?

A No. No.

Q Now, in your statement – and we won't go to it because it's a sort of general section – you've explained how the structures and teams of the Infection Prevention and Control Team worked at the hospital and across the health board, and I have a few questions about the generality of infection prevention and control practice. The first one is what do you understand by an expression that's been used by lots of people: “an unusual microorganism”?

A So, that's an organism that we don't see all the time. We have what we call our bread and butter organisms. We see MRSA, we see C diff. There's other ones that we see more regular, but an unusual one is one that we wouldn't see day-to-day or even month-to-month.

Q And so we've heard there's a

national reporting list of microorganisms.

A Yes.

Q Presumably they wouldn't be unusual ones.

A Some of them may be more unusual but would still require reporting, but there are ones on that list that we don't see frequently.

Q And then there would be ones that aren't on the list, but which are unusual in that you don't see them frequently.

A Yes.

Q Right. Now, does the meaning, from your point of view, of "unusual microorganism" change when you're looking at different groups of patients? I'll give an example to put this into context. So, for example, a patient who is receiving a bone marrow transplant, or a patient in the cystic fibrosis ward, might a microorganism in their sample be seen as more unusual than if it was found in another patient, or is that a misunderstanding of the nature of unusual microorganisms?

A For me, it wouldn't matter the patient group, and part of the reason for that is patients move around the hospital, patients move from specialty to specialty, so you may get a CF patient or a bone marrow transplant patient in ITU, so for the Infection Control Team we look at the organism and not always just the location

that the patient's in.

Q That's very helpful to understand moving on to the next thing, which is if you have a bone marrow transplant patient, presumably they have a room which is their room, and that will be just them in their room, and it might well have an isolation room setup. Would it be right to think that?

A Yes.

Q Yes, but when they go for an X-ray or they go for a procedure, they might go somewhere else in the hospital.

A Yes.

Q And that wouldn't have that same facility as their room. It would be different.

A Yes.

Q Right, and so you focus on the organism and the patient, rather than imagining they're all in boxes.

A Yes, and also our Infection Control doctor would alert us to an organism that was more unusual or we don't often see in this particular patient group, but that would be directed by them; but any organism, regardless of where the patient is, is reviewed the same way.

Q So, you mentioned your Infection Control doctor. Now, as I understand it, from the time that you were in the adult hospital, for a lot of that time the lead infection control doctor was Dr

Inkster.

A Yes.

Q Were there-- and the other Infection Control doctors, they weren't full-time Infection Control doctors, were they?

A No.

Q No. So they were also doing microbiology sessions as well?

A Yes.

Q Now, what role do you see Infection Control doctors and indeed microbiologists playing in drawing your attention to unusual microorganisms?

A If an unusual microorganism was found in the lab or seen on a patient specimen, we would be notified by the Infection Control doctor. The microbiologists within the lab-- I don't know what would happen within the lab. They would maybe phone the team with maybe a C diff, but anything that was unusual, that would be our own ICD that would notify us of that.

Q What happened-- Because we've heard evidence that a microbiologist might be asked to look at a particular sample from a patient and has to be looking for a particular organism, effectively, because of the way you do the science. Depending on what you're looking for, you use different plates/different methods. So the microbiologist in the lab in a sense knows

what they're looking for from the information they've received from the patient's clinicians. If they get a positive result for something that's unusual, they will tell the clinicians what it is. So, would the microbiologists not tell the Infection Control nurses directly, and if not, why not?

A In my experience, that wouldn't have happened. I don't know in other hospitals or other sites, but certainly any time there was any unusual organisms, it was our own Infection Control doctor that would notify me and a member of the team.

Q So there haven't been, from your point of view, examples of microbiologists who have no Infection Control sessions telling Infection Control nurses directly, "We found X," or, "We found Y."

A There would have been, perhaps, occasions when there was a period when some of our Infection Control doctors chose not to do infection control, and we had cover from various microbiologists that weren't our Infection Control doctors at the time, but they were undertaking the role or the responsibility of covering infection control.

Q Well, indeed. Also, out of hours, there won't be an Infection Control nurse in the hospital except in exciting and distressing events when they need

more people, but there wouldn't be an Infection Control doctor on call either, would there? There'd be a microbiologist on call.

A Yes.

Q Yes. It's a microbiologist on call. So if over a weekend you get a positive for an unusual microorganism, the message is going to come from a microbiologist, isn't it?

A Well, it might come via an email, but there wouldn't be a phone call to say, "We've found"-- I don't understand what the the process in the lab is, so I don't know whether they would then speak to an Infection Control doctor and say, "This is what we've found," but certainly I can only say from my experience I didn't take calls from our microbiologists.

Q But you did get emails from them?

A We would get emails, maybe, on a Monday that had been sent over the weekend.

Q Okay. Now, we've had some evidence from HPS and ARHAI nurse consultants that, while since April 2016 a HIIAT green still requires a report, that system only works if the health board, i.e. the infection control team, decide to carry out the HIIAT process. Is that effectively a fair understanding of the system?

A Yes.

Q So if something is detected, someone's got to realise, "Oh, we need to carry out a HIIAT." That's a conscious process, isn't it?

Yes.

Yes. And they might not do that and there might be a reason, there might not be a reason, but that's the process.

A Yes.

Q Right, and so would that not mean that this whole system is only as good as the internal surveillance system inside each health board, in that unless you're spotting the unusual things in the lab and telling the Infection Control Team, you won't ever realise you've got a problem with an unusual microorganism?

A I think that's a fair comment.

Q So, I want to understand a little bit about something that you've touched on already, about the difference between an Infection Control nurse and an Infection Control doctor. So, from your point of view, in what way does the role differ?

A So, an Infection Control nurse does the very practical work. So, the Infection Control doctor has identified the organism. We would liaise with them, discuss it. They would maybe liaise with clinicians, because if it was an unusual organism, they would notify the ward; they would notify the medical team in charge of the patient. We would discuss

it between us and they would advise what precautions they think are needed. Now, there's some organisms that we know what precautions are needed, but there's other unusual ones that we maybe hadn't dealt with before or don't deal with frequently. So the Infection Control nurse does the very practical things. We visit the ward. We ensure Infection Control precautions are in place. Depending on the organism, we would maybe speak to the patient, but if it was very unusual and one we don't see very often, we would maybe speak to a patient with the Infection Control doctor and we speak to the staff and advise them in the precautions, so we are very practical.

Q But in terms of the-- If it's unusual, unless you've come across it you're probably going to have to be guided by the Infection Control doctor.

A Yes, that's what I'm saying. We would liaise with them and they would advise what guidance and what Infection Control precautions should be put in place for that patient.

Q There isn't an Infection Control doctor available because it's that period when they aren't doing the sessions. You'd be getting that information from a microbiologist, effectively.

A Well, it would be a microbiologist that would be covering Infection Control. They might not be

taking the role of Infection Control doctor.

Q But they'd be given-- they're the ones who give you the information for the unusual cases?

A Yes.

Q Right. Now, there's been some suggestion that-- Well, before we get to that, remember I asked you about your knowledge of ventilation, and you candidly explained that's not a field you have expertise in, but I wondered if there's any area of Infection Prevention and Control work which you would think, "Well, that's just definitely outside the experience of Infection Control, and that is even quite a senior one?" Would the details of ventilation systems be one of them?

A Yes.

Q All right, and what about the risk management-- understanding the risks from water systems? Would that be something that you guys would deal with?

A No.

Q No. There's been some suggestion that the service-- Infection Prevention Control service in Glasgow is or should be a nurse-led service. I have two questions about this: one, what do you understand that to mean, and the other is, well, is that right? So, what would it mean to say that Infection Prevention Control is a nurse-led service?

A I think it's that the nurses are managed by another nurse, and that's their line management. I don't know whether other areas have got a nurse-led service and understand it differently. I don't think there would ever be a time that we don't need Infection Control doctors or microbiologists working with us.

Q Is there any downsides from it being a nurse-led service?

A To be honest, I've not thought about it, so I can't say one way or the other.

Q Okay. Now, one of the things you mentioned in your statement at paragraph 4(b), which is page 259-- Top of the page, you mention-- we asked you if there's any tensions in the team. You've given us quite a detailed answer. Now, we wanted just to, sort of, see if we can get a little bit more information about this just to place it in time. Could it be this is December 2015? Might be-- the issue is face masks relating to a specific RSV virus? Might I have that right?

A You may have-- I can't see the exact date, but you may have the right virus.

Q Yes, because it's been suggested to me that what's happening here is that this Infection Control doctor, microbiologist, has advised you to do something that you see as out of practice, and that Dr Inkster has then said, "No,

you really need to do it. It's quite a virulent virus." At least on a temporary basis, Sandra McNamee has then approved that. Have I got that right?

A No, that's not how I remember that.

Q Okay. Well, what I'll do is-- So, what do you think did happen?

A So, we had a team meeting, and Dr Peters attended the Infection Control Team meeting, and we were discussing a particular organism within our critical care suite – I can't remember what ward – and she had suggested that we ask the the teams looking after the patient with this organism to, if I recall, wear light theatre hats, hair coverings.

Q So, it wasn't that FFP3 masks then?

A No.

Q Right. Okay.

A I don't know if we discussed masks at that time, but I do remember the bit about the head covering. I had said that that would be against the national guidance-- the HPS, as it was-- the ARHAI guidance which we followed, but I had a lead nurse meeting that afternoon, and I would discuss it at the lead nurse meeting because we can't have one hospital doing one thing and the rest-- following one guidance and the other sectors within Glasgow following other guidance. I did take it to the lead nurse

meeting that afternoon. I did raise it with Sandra Devine, who discussed it with Tom Walsh, and I think they were discussing it with Dr Peters. My concern was that wasn't normal practice. To introduce something completely different into one ward wasn't the guidance that we would normally follow for that particular organism. That's how I remember that.

Q Right. I suppose the reason that I've raised it at all is because you see this as being the cause of a tension, and I suppose I have to put it to you that that's just a small disagreement about the practicalities of treating one microorganism. Why do you think this caused this tension----

A I think I said that was the first thing that I felt caused some tension between us, and then there was some other things that followed. I can't remember all the details of everything, but there was several things that I felt caused tension between us. I think, at the time, Dr Peters had come from Ayrshire & Arran, and she felt that-- because she was the ICD, it was, "Do you know if I give advice, this is what you follow?" and to a certain extent, that's right, because we see the Infection Control doctors as the experts with some of the organisms-- the unusual organisms. Of course, we always would

take their advice, but this was against national policy and local----

Q So, I think possibly-- if you-- Two things arise. One is: is national policy in this area-- I don't know-- is national policy so prescriptive that it covers every situation?

A No.

Q No. So, you've received some advice from a doctor who's the sector ICD---

A Yeah.

Q -- and this seems to be an issue. I still don't understand why it's an issue.

A It wasn't an issue at the time. I had just said, “Well, I'm going to the leads meeting this afternoon. I will raise it there because I don't think we should be changing one thing in one hospital site and not elsewhere.”

The Infection Control Team are very inclusive. So, if we have-- and as you can imagine, there was lots of changes in guidance through COVID. We would discuss it as a whole team, that was nurses, senior members of the team, and our ICDs. So, we would discuss it if we had a particular thing. "Do we think we should do this?" It's a collective decision. So, all I had said was, “I will take it to the lead meeting. We will discuss it, and we can look at whether that's something we would put in place.”

Q Because there was a-- at the time-- I mean, you may not have known about it at the time. There was a piece of work done by Dr Stewart in which he was-- He only spoke to, I think, nine people, to be fair. He may not have spoken to you. Did he speak to you in that time, 2015, carrying out some sort of review of culture in the IPC team? He didn't speak to you?

A No.

Q No. Right. Okay. So, he carried out a review and it's a long review, but I do seem to remember – we looked at it yesterday – that he felt that there are occasions when-- I mean, he raised a number of things. This was just one of them. He felt there are occasions that Infection Control doctors had had their decisions overturned by other members of the team, and so I wouldn't want to make too much of this, but it occurs to me that this is the end of 2015 roughly.

A Right.

Q Right. The hospital's just opened.

A Yeah.

Q Dr Peters has-- and Dr Inkster have discovered, at this point, that pretty much none of the isolation rooms are built as they would expect them to have been. Is that something you knew about at the time?

A I don't think I knew about it then. I did become aware of it after that.

Q And, in July, both of them have resigned their sessions, or tried to anyway. Did you know that?

A I do recall that, yes.

Q Yes, and they've asked-- they've approached Dr Armstrong, and she's instructed Dr Stewart to carry out this review, and he's spoken to nine people, and by the time this happens they're in their third time trying to convince Dr Stewart that there's something wrong with the building. So, I just wondered whether, in the context of all those events, maybe your approach as a team to receiving advice from the Infection Control doctor, when he's a microbiologist at that point, might have been a little bit disproportionate?

A I don't think so because I didn't say, "We are not doing this." What I said was, "We will take this to the lead nurse meeting," and, that way, it would be discussed at a higher level, and I don't mean by the leads. I mean that Sandra. Devine and Tom Walsh would discuss it with the Infection Control doctors and the senior management team. It wasn't a decision-- I hadn't refused to do it.

Q No, I appreciate that, because the reason that it seems odd to do that is because-- I haven't spoken to Mrs Devine yet. That's to come. Mr Walsh has given

evidence, and he's explained he has no experience of the practicalities of-- he's not an Infection Control clinician. He's a manager. If I'm thinking about the same instance, both Dr Peters and Dr Inkster engage giving this advice. So, it looks to me as if-- what seems to have happened-- or I put to you that an operational piece of advice or instruction, one or the other, has been given to you about a particular virus, and the response is to take it up to a management system which doesn't actually include any Infection Control doctors at that point because Dr Inkster and Dr Peters have already expressed their views. So is that not just undermining the Infection Control doctors?

A I don't think so, no.

Q Okay. Well, let's move on to-- sorry, you mention at the end of that paragraph that you arranged-- a meeting was arranged with the Union. Did you do anything else in terms of taking this further?

A No.

Q No. Right. Okay. Well, what I'd like to do now is to look at some specific issues. So, you've already explained that-- well, at the time you arrived in October ‘15, your opposite number in the children's hospital would have been Pamela Joannidis.

A Yes.

Q Yes, and then she would have been replaced by Susan Dodd.

A Yes.

Q Yes. Right, and when you took over your role in the adult hospital – that's October, so that's about four months after it opened – what handover were you given about the building?

A I wasn't given a handover about the building. I did go over and work with the lead nurse at the time for two days, but there was an incident-- a completely separate incident, and I didn't get a handover. I mean, I got a general handover of the wards and the team and, you know, these are the patients, but it's the same-- you deal with the same patients regardless of where you are in GGC, the same organisms, but I had no handover about wards and departments.

Q Because one of the issues that's running at that time is the question of whether all the isolation rooms in the hospital are built to guidance, and it certainly turns out they aren't. There's a question of whether that's important, but there does seem be a non-compliance. Were you given any information about the isolation rooms when you took over because there were some in your hospital?

A No.

Q No, and you've helpfully explained that you're responsible for

everything. You're the lead ICN for the whole adult hospital except for 6A's pediatric patients when they come in.

A Yes.

Q Right. So, that would have included adult bone marrow----

A Yes.

Q -- until they came back in 2018 or after they came back. Hematooncology in 4C, cystic fibrosis----

A Yes.

Q Infectious diseases on four?

A Yes.

Q Right. Now, there's information in Dr Inkster's statement saying that in November – so it's just after you started – she and you and Professor Williams met to discuss the ventilation issue around air sampling and dust. They agreed they would seek some clarity from the Estates Department and the contractor, Brookfield. Does that ring a bell with you?

A No.

Q I don't think there's a minute. Would you have been involved if there was a problem with dust in the hospital?

A I think it depends on where the dust was and-- was it just general areas not getting cleaned or was it high levels of building dust?

Q The context is it's dust around building work, but I can't tell-- I'll have to ask Dr Inkster. The other thing was Ms

Dodd says in her statement that she felt the hospital was quite dusty in 2017.

A Yeah, I do recall we had a corridor that linked the office block to the hospital, and quite often there was, like, sort of, balls of dust----

Q Right.

A -- I think I could describe it as. We had reports from a few wards saying, do you know, they felt the area was quite dusty and-- but that wasn't prolonged.

Q How would you deal with it?

A We would have just phoned domestic services.

Q And just get on with cleaning?

A Or the ward maybe had already phoned them, but if they hadn't, we would either advise them to phone them or we would contact them.

Q So, given that Susan Dodd is talking about after March 2017 when she arrived, do you think it's possible the problem could still have been happening then? That's two years afterwards.

A Possibly.

Q Can you think of why there might be a problem with dust that's noted?

A No. I mean, the rooms were sealed, the ward doors were generally closed. The front of the hospital, of the adult hospital, was very, very windy, so when the the doors opened it was a very windy area. So I don't know if stuff blew in, I don't know.

Q But when you say the rooms were sealed, were the rooms----

A No, sorry, I mean the windows-- we didn't have opening windows.

Q So the external windows were sealed?

A Yes.

Q But, as far as you know, were the actual rooms sealed?

A What do you mean?

Q Well, the rooms had-- or most of them had suspended ceilings.

A Yes.

Q So that means that there was no seal.

A So, they weren't-- no.

Q They weren't sealed?

A It wasn't wasn't a solid ceiling.

Q Right, okay. What I want to do is take you to bundle 14, volume 1, document 60. So this is-- There's two of these to go to. This one deals with leaking dialysis points, and there's quite a lot of emails here.

A Yes.

Q And I'm really putting this up to give us a date and an *aide memoire* to you. So this is March 2017. Before I ask you a question, can you explain to us what is a dialysis point?

A So, a dialysis point is a section on the wall of a room that's got points that are attached to the water system where,

if a patient's receiving dialysis, the dialysis machine is connected to these points.

Q So it's a sort of patient water supply in a sense?

A Yes.

Q Right, and what was the issue with these dialysis points?

A From what I remember-- and I don't know if this is relating to the previous issue we had that-- We had an issue in one of our Critical Care areas where we had dampness noted on one of the walls of our single rooms, and it was Dr Peters and I that had went down to investigate it, and when they looked at it, it had been a dialysis point had been leaking.

Q Because this thread seems to suggest that the problem, actually, is quite widespread.

A Yes, it was.

Q And so, could it have practically involved almost every dialysis point?

A I don't think it involved every one but every one was checked.

Q Right.

A I can't tell you a number of dialysis points that we have in the hospital but they were all checked and there was a large number leaking.

Q Now, I'm trying to connect this to some other evidence. We've had some other evidence of an issue around what some people refer to as Muco or Mucoraceous mould. Is this connected in some way to the dialysis point or am I making an odd connection there that's wrong?

A I don't think that was connected.

Q No, okay. Now, from your point of view, we've been discussing with many witnesses what their understanding is of the water system as time goes on, and there's a-- for example, I'll use an example which you may have heard of. There's an issue with the aseptic pharmacy in 2A relatively early on, and it's analysed as a problem with one sink or one drain. When you were looking at the problems around these dialysis points, were you looking at it as a problem that only related to the dialysis point itself or as a systemic problem in the water system?

A I think, at the time, we were only looking at the dialysis points-- there had been other water issues which I'm sure you're aware of, but at that point the incident that Dr Peters, Christine and I had found was a leaking dialysis point, so what we did then was had to have every one looked at. So I think at that point the focus was only on the dialysis points.

Q Okay. The focus is on, "This is a thing, let's check it."

A Yes.

Q Right, okay. The next thing in the same bundle at page 631 is another thread of emails which I put up to help, again, to provide an *aide memoir*e. This is July 19 and this, again, is dialysis point, but-- and so did this problem keep going on for a bit of time, of leaking dialysis points?

A The previous email you brought up, I'm sorry, I didn't look at the date.

Q That was 2017.

A So, I think this one then was in relation to the one we found in Critical Care, the one earlier I think was one isolated incident.

Q Right.

A Sorry, I think I was getting them both mixed up.

Q Right, okay, and then in this one, this also is a discussion of, you see, "Afternoon…" this is from you:

> "The lead IPCT will be checking all dialysis points on the site from Monday for similar issues and we also plan to check all shower rooms on level 4 for breaches of the integrity of the flooring."

Now, what was the issue about the shower room flooring in the summer of 2019?

A I don't know if we'd maybe-- we had frequently got reports that the shower room floors were splitting or-- at the joints, they were splitting. So I don't know, they wouldn't have been related to the dialysis points, as such.

Q No, this is a different issue I think, yes.

A So you would occasionally get calls from wards to say, you know, "We've got water ingress or, you know, we're"-- so when flooring is put down, it's coved. It's----

Q At the bottom of the wall?

A It's brought-- So, it's brought up a few inches up the wall and then it's sealed at the corners, and then across the floor, quite often, you'll have a seal in the joint of the flooring and they would quite often-- wards would contact us to say, "We have splits in the vinyl, we have seals breaking," and it was just, I think, through time there had been-- the shower was used once/twice a day, whatever, and staff were finding the integrity of the floor was breached.

Q And, again, does that-- was that seen as a localised issue or a sort of building-wide issue?

A I would say it was building-wide.

Q Now, we've heard some evidence that ventilation systems play a role in risk reduction for certain patient

groups. What I wanted to understand was, whilst I appreciate that ventilation is not your topic, when did you become aware that there was potentially an issue with the ventilation system in the isolation rooms in the other hospital?

A I don't think I could give you an exact date. There was-- and there was never a, "Let's sit down, there's an issue with the ventilation." It was all very-- and I don't mean hearsay, I'm not-- that makes it seem as if it's not a, you know, a serious issue because it was, but I can't say an exact date when I was aware of----

Q Could it have been in 2015?

A I don't know if it would have been 2015, but certainly into 2016.

Q Because the reason 2015 is a date to ask is there's a HPS SBAR in October 2015 recommending changes to those isolation rooms, would you have heard about that?

A I don't think I saw that at the time. No.

Q Right, okay, and when it comes to the general air change rates in, I mean, the whole hospital, the individual rooms and all the wards, the corridors; when did you realise that that might not be six air changes an hour, as is the guidance, but perhaps three or less?

A I can't tell you an exact date, but I think it would have been early in

2016.

Q Early 2016, right.

A Because I-- although I hadn't moved to the hospital when it opened, I was aware that the BMT patients had been there and had moved back because one of the wards I covered prior to moving to the Queen Elizabeth was the Beatson and Colleges Centre on the Gartnavel General Campus.

Q So you knew that adult bone marrow had gone back to the Beatson?

A Yes.

Q And they didn't return until the summer of 2018?

A Yes.

Q And so I wonder if we can explore a little bit why you say early in 2016 as the time you might have realised the general air change rate. Is there anything in particular that makes you say that?

A No, I feel I've known about it for nearly as long as I was at the hospital, but I moved there in the middle of October and I don't think-- maybe I was told then, but I don't recall-- I think I was getting into the role of a lead nurse on that particular site, I was-- and I don't recall being told specifically there was a ventilation issue.

Q When you found out, did you-- what did you think about it being almost-- Well, possibly more than half the

recommended air change rate? What did you think about that?

A I don't know what I thought at the time specifically, but I think over time I've thought, "It's a brand new building. Why have they-- they've not met what the specification should have been? Why is it so low compared to what it should be?"

Q What, from your point of view, is the air quality like in-- We'll stay away from Ward 4B at this point, but anywhere else in the building, what's the air quality like in wards from your experience, comparing places the you've worked in?

A Do you mean the air changes or----

Q No, you're in it, the sort of humidity, temperature, smell.

A It was always very warm.

Q Yes.

A The wards were always extremely warm. The staff-- I wasn't in the wards for hours at a time so I can't comment. The staff would always say it was very warm. It was-- they had a stuffy feeling. They felt there was no-- Well, there wouldn't be air movement really in the wards----

Q Right, and would you have agreed with them when they told you that? I mean, is that something you----

A I would have, yes.

Q Right. Now, again, I appreciate that ventilation is not your

specialist topic, but you were the lead ICN, so I'm assuming you would accept that if we, for example, take the concept of a bone marrow transplant patient, what the air change rate is in their isolation room is something you would need to know about at the time you decided to put them the room. Would you say that's something you would need to have on your list of things to be sure of?

A I think I would have been aware of or I would have been advised what the air rate should be in that room. There's guidance to tell you what the, do you know, the ICD would say.

Q It's all a check list.

A Yes.

Q So you'd check off that there were HEPA filters, there was----

A I wouldn't-- No, I wouldn't check that.

Q No, no, what I mean is you would want to know that there are HEPA filters and there is air pressure differentials and sealed rooms and all things, or if you didn't, who would?

A I think the ICD and our Estates colleagues.

Q So you would see that the-- in the context of isolation rooms, at least the question of, "Is this room the right room?" is an ICD question?

A Yes.

Q Right, okay. Now, when it

comes to a general ward, so not a bone marrow transplant isolation room, we've had some evidence of various points of increased particle counts in the air or fungal counts. We've had evidence about-- not in your hospital but in Children's Hospital, of aspergillus infections happening. Can you think of any ways that the air change rate in a ward would impact on the way you carried out your practice as an Infection Control nurse?

A No.

Q No. It wouldn't make you do anything different?

A No.

Q No. In your statement, if we go to page 263 of your statement-- 264, sorry, you discussed a leaking pipe at question 13?

A Yes.

Q And chilled beams and a ceiling space. What I felt I needed to understand here was-- is that this reads as a single incident of fungus above the ceiling, or is it actually talking about multiple instances? It's not quite clear, and I wanted to be sure.

A So, the incident I'm referring to is one that was in 4B----

Q Right.

A -- but there was various incidents across the site. Some we would be aware of, not all, because quite

often you would hear afterwards. Staff wouldn't always notify you. Their first line would be to notify Estates if they had noticed. Quite often, it was a damp patch in the ceiling they would see first.

Q Okay. Well, let's try and break that down. So, we've got these chill beam units in the ceiling.

A Yes.

Q We've got the ceiling tiles.

A Yes.

Q And you mention pipework that had burst.

A Yes.

Q So, if we take all three of those, and we'll ask how often you think they're happening or where they're happening or what you think about them. So, in terms of the chill beams themselves and dust on them and condensation, when's that something that first comes across your practice? When do you start learning about this being a thing you would be interested in?

A I can't remember the exact date, but I do remember getting notified one day that there had been several chilled beams leaked, they said.

Q Leaked?

A Leaked. That was what was reported. I can't remember the ward, and I do think it was in one of the bundles. It was one particular ward, and it was several rooms we had-- the staff, or us,

had advised to close because the chilled beam was leaking. I had never seen chilled beams before. Probably before the hospital opened, and even in the early days, I wouldn't have been aware of chilled beams, but suddenly we had staff reporting drips onto beds, onto floor, coming from the ceiling space.

Q Because there's some suggestion that there might be two sources of this water. So, one suggestion is that the source is condensation, and that the chilled beam is at a temperature where water is condensing onto it.

A Yes.

Q There might be dust, and that's a whole story about dripping onto beds and possible infections. That's one story, and there's another piece of evidence we've heard about the connecting chilled water pipes maybe coming loose or corroding, and there being leaks from the actual pipes, and they have oil in them and they're different-- It's different water, effectively. So, in terms of just the beams themselves and the condensation, when does that start as a story for you?

A I can't remember the exact date.

Q Could it be as-- 2016? 2015? 2017?

A I don't think it would have been 2015. It may have been 2016. You

mentioned condensation, and when I asked why this was happening, I was advised it was-- I think it had been a very warm temperature outside, and the chilled beams would heat up and cool down, and the condensation would build up, and the water was discoloured because there had been dust on the chilled beams, and that's what I was advised from our Estates colleagues.

Q How does one go about arranging the cleaning of a chilled beam in a single room in a hospital?

A So, it depends with-- There's various ways. Usually, we would move the patient out of the area. We use something called a HEPA tent, and it's a tent that goes over the tiled space which would have been the grille that the chilled----

Q And so you clean inside the HEPA tent effectively?

A Yes, they can do that, or they can just clear the room out and lift the vent cover off and hoover and clean.

Q Does that involve an HAI-SCRIBE and all that?

A Yes.

Q It's a process.

A I think we did put an HAI-SCRIBE in place for that.

Q Well, there's certainly some evidence from, I think, Mr Clarkson about this being a process that takes some

time.

A Yes.

Q When it gets back to the chilled water pipe----

A Yes.

Q -- when does that become something you become aware of?

A I think that was probably late 2015/early 2016, because we had a report-- I don't remember the exact ward again, but we had a report of a damp ceiling tile, and when Estates reviewed it, they said it was the valve in the water pipe, and I do remember saying, "Is this a one-off?" and maybe it was after the second or third, I said, "Why is this happening?" and they said it's-- the valves have started to erode, and----

Q Because there's also been some evidence that in possibly March 2020 there was a rather more widespread failure in the chilled watering system involving corroded pipes. Is that something you were aware of?

A I do remember the-- and I couldn't, again, tell you the date, but there was a discussion around corroded pipes, and, again, what I was told was it was-- I'm not an engineer.

Q I appreciate that.

A It was the wrong type of steel that was used, but I do not have any evidence of that other than----

Q Than what you were told?

A Yeah.

Q But you think that's roughly late-- When do you think that is?

A I don't think it was as late as 2020.

Q Okay

A But----

Q Do you think it might have been before or after----

A Before, I think.

Q -- Ward 6A was in the-- was full of children, as it were?

A I think it was before 2020.

Q Right. Now, I want to turn to the water incident, which we understand to be an event that starts in 2018. When it was announced that water filters were to be fitted to-- point-of-use filters to taps and sinks in the hospital, what was your reaction to that?

A I had never used filters before in any taps. They had never been advised. We were taking our guidance, again, from the ICD and our Estates colleagues. I had never worked anywhere that had these filters fitted.

Q Did they cause any practical difficulties? What sort of problems did they cause?

A Yeah. So, some of the issues staff reported was-- If you imagine----

Q We can take this off the screen.

A If you imagine the design of a

sink and the tap-- So, you had a filter which was fairly big. Staff felt they had no room to wash their hands, and there is a process for washing hands. So, that was one of the issues, but there was still enough room to do it, it just wasn't as easy.

One of the other issues that I came across and was reported to me was within our kitchen areas-- Each ward has a kitchen area. Food is not prepared there. This is just for, you know, washing patient cups or filling jugs, things like that. It's got a sink and it's got a fridge, but it has a small-- not a clinical hand wash sink, just a hand wash sink, and it was quite a small sink, and the filter was fitted onto that.

Now, it was a sensor tap, so it meant that the filter was blocking the sensor. So, a couple of wards that I had went in to just do a general visit – we visited all the wards weekly – the filter had been removed and was sitting at the side of the sink. When I spoke to the staff, they explained they couldn't wash their hands in that sink because the filter was blocking the sensor, and because of the size of the sink, they couldn't get their hands under to wash properly.

Q Were you aware of any difficulties for any particular groups of patients using sinks with filters in?

A No.

Q No? Like children-- Well, you wouldn't have had children in your hospital----

A No, we didn't.

Q But older people, they found a difficulty with the sink?

A It was never reported to me.

Q Never reported to you, okay. What I want to do is take you to bundle 14, volume 2, document 95.1. It's page 211. Yes, this is it. So, this is a minute or a note of a meeting called "The water incident debrief meeting." Now, the reason I put this up is you're in here as attending. I just wondered how it was that you ended up at this meeting since a lot of the water incident is focused on the children's hospital. So, why do you end up here?

A I think it might be because, although it was very focused on the paediatric hospital, a lot of the mitigations that were put in place were put in place in the adult hospital as well. So, there was filters fitted. There was guidance for, you know, BMT patients or high-risk patients not using the showers, to use bottled water for drinking only, to not use tap water for brushing teeth, things like that, so-- guidance for staff about handwashing and then using an alcohol gel. So, I don't know if I was there for that reason. I can see some names on that who were also from the adult

hospital, so----

Q Yes. I wonder what your recollection is about the mood of this meeting?

A I don't recall.

Q Because it seems, from the way it's recorded by the person who wrote the minute, as a relatively positive process, the feedback is relatively positive. Is that right?

A I think there was a lot of feedback, and there was a lot of, "What's went well? What hasn't went well?" I don't recall, but I attend lots of meetings, but I certainly don't recall coming out thinking, "That was a difficult meeting."

Q Right. Had the issue of water actually been resolved in May 2018?

A I think it had been resolved, but I think we had further water incidents towards the end of that year, I think.

Q Well, we had the decant of the children's hospital in September, didn't we?

A Mm-hmm.

Q The sad thing is, if you nod, the person doing the transcript can't pick it up. So, was that a yes?

A Sorry, yes.

Q You have to talk.

A Sorry.

Q Right. Well, I want to just look at a document which we think might have been circulated with this, and that is-- well, the email covering it is in the same bundle, page 209. So, this is an email from Ann Lang which attached the notes of the meeting, and then, on the next page, which is an earlier email, setting out the date and time, you see Mr MacLeod has put:

> "An incident report will be sent to this group later on the week by Dr Inkster. "

Now, I'm going to show you what I think might be the incident report, I want to ask some questions about it, which is bundle 27, volume 5, document 19 at page 46. Now, I wondered if you'd seen this before. Let's go through to the end to give you a chance to sort of catch up with it. So, if we just walk through pages slowly, please, and again, and again, and again, again, again, and again, and again. Lots of action points, and then a name at the end. Could we go back to page 46? I wondered if you'd seen this before until we asked you to look at it as part of your preparation for today.

A I didn't recall it when I saw it, but I would imagine-- I don't see why I wouldn't have received it if I had been at that meeting.

Q Because the reason that I wanted to put it to you is-- well, I put it to Susan Dodd, so it seems appropriate. At the bottom of the page, it says:

"Causative organism: environmental gram negatives and fungi from biofilm.
Main presenting illness: bacteraemia."

Then, you think, "Well, that's odd that it says food," but if you go over the page, you see that someone's highlighted "water."

A Yeah.

Q Then:

"Source(s) of exposure: contaminated water supply ... Complex incident. Contaminated water supply. Long term preventative measures will take some time to implement."

Now, what I wanted just to check is, at this point in May 2018, if someone had asked you, "What was the issue behind the water incident?" what would you have said?

A I think they thought there was contamination, at that time, within the pipeworks from when the hospital was built; that, through a period of time, there had been a buildup of biofilm in the pipes.

Q So, as one of the two leading Infection Control nurses for that hospital, you and Ms Dodd, would you have agreed with that assessment at that time or taken a different view?

A I think I would have agreed,

because that was the hypothesis that was presented and there was nothing for me to think otherwise.

Q This of course is May 2018, and we've heard some evidence of reports prepared by a company called DMA Canyon. Does that name ring a bell to you?

A Yes, yes.

Q Did you eventually see a DMA Canyon report?

A No.

Q Did you hear about them?

A No.

Q When did you first hear the word DMA Canyon?

A I knew the company DMA Canyon because you see them around and they're involved in water testing, but I didn't ever see any reports that they would have produced.

Q In the summer of 2018, it seems that one or two of their reports, the word is, "emerged" and were noticed by more senior managers, and there was a little investigation carried out by Mr Leiper, and there was some work then done to fit a chlorine dioxide system to the water system, and then lots more testing was carried out from then on by the Health Board in the hospital. I wonder what awareness you had as the lead Infection Control nurse in the hospital in the summer of 2018 of the

discovery, as it were, of this DMA Canyon report, all this work being done behind the scenes. Did you know anything about this?

A I think I probably would have known about some of the work. I think the chlorine dioxide I was aware of, and I think it had been raised, and I don't know if it had been in a meeting or had been verbally shared with me, but I wasn't aware of the report-- I wasn't aware of the report, so I hadn't seen the report.

Q Because one of the things that seems a bit strange about that is that there's been a water incident where you've attended some of the meetings. I wonder if we can go to bundle 10, document 9, page 35. This is a water review meeting chaired by Mary Anne Kane. Now, what we understand is that this involved-- Well, this actually ends up being a point of contention, but I understand that this is a meeting being set up, chaired by the interim director of Facilities, to look into finding out what the solutions are to the water problem at, sort of, an executive level, and you're attending it. What was the purpose of the meeting, from your point of view?

A I don't recall now what the purpose of the meeting was.

Q Because you attend two of them. The next one you attend is on 15 June, which is on page 39, and what I wondered was: there's lots of discussion in this minute about tap selection, about sanitisation of the water, and you've-- Sorry, you missed this one.

A Yes, I was----

Q Sorry, apologies, but the point I wanted to get across was more: do you know why you stopped attending?

A I don't know if I stopped or I just was attending another meeting that day. Suzy Dodd was at the meeting and Teresa Inkster, and if there had been anything relevant – any actions for the adult site – they would have shared them with me prior to the minutes coming out.

Q Yes. So, just go on to page 44. So. this is a meeting after you've stopped attending. I'm just looking at the attendee list and Dr Inkster's there, Professor Hood, Annette Rankin from HPS. I'm just wondering whether-- did anyone eventually tell you about the fitting of a chlorine dioxide dosing system to the water system?

A As I say, I think I maybe, verbally, was told about it, but I wouldn't have been involved in a decision to fit it, or why it was being fitted.

Q What did you understand-- Did you understand there was an issue with water at this point?

A I would have been. I would have known there was an issue with the water.

Q So, what do you think's happened to the water in the hospital since then?

A Since the----

Q Since the summer of '18. In the year afterwards, before the pandemic, what did you think was going on?

A Well, if they fitted a dosing system, they did dosing, they did shock dosing, and then they've obviously fitted a dosing system to try and ensure the water's almost cleaned periodically.

Q Who would you look to, given that water's not your specialism, to advise you about whether any issue with the water had been resolved and was no longer a risk to patients?

A Probably Estates and ICD.

Q So, when you say ICD, that would be the leading Infection Control doctor?

A Sorry, yes.

Q And when you say Estates, there are lots of people in Estates.

A Yes. I mean, do you know, maybe Kerr Clarkson at the time or some of the other Estates managers we would have spoken to, but I don't think I would have went to anybody to ask specifically, "Is the water okay now?"

Q Why wouldn't you? I mean, there was a lot of noise going on.

A Mm-hmm.

Q So, as you say, people weren't allowed to shower. So, why wouldn't you ask?

A But we were then advised by our Infection Control doctor, you know, "We've done water testing. The water testing is fine." We wouldn't have got water testing results. They were reported at the meetings. Our Infection Control doctor would have told us that the water results are okay, you know, "We can stop those precautions. We'll keep them in place for maybe this group of patients, or we'll leave the filters in place."

Q Can you help me about when you're told that various interventions can stop? So, if we take it that the chlorine dioxide system goes in in late '18, when are you told that patients no longer need to drink bottled water?

A I can't remember.

Q But the source would always be the lead Infection Control doctor?

A Yes.

Q I think I'm just probably going back to chilled beams again, but I wonder if we can go to bundle 12, document 153, page 1263. So, this is the summer of 2019, so this is quite late on, but do you see how it's Ward 5B happened to close approximately eight rooms due to chilled beams leaking----

A Yes.

Q So----

A The----

Q Sorry, carry on.

A That's what I mentioned earlier, and I do remember one particular occasion-- and it would have been then when we had a few days of really high temperatures, and I do recall there was-- That was a particularly difficult time for the ward, because that 8 rooms is a lot of rooms to take out, even for a short period of time.

Q I appreciate that, and now this is quite late, I suppose, and so are we still to take that the issue of chilled beams, to some extent, is earlier in your mind as well?

A Yes.

Q Yes, right. Okay. Given that this is Ward 5B, what patient cohorts are in 5B?

A Medical.

Q This is a general ward, isn't it?

A Yes.

Q Now, I do appreciate you've already told us what your experience is, but at this point you're the lead Infection Control nurse on the site, and we are in the summer of 2019. So, who would be the person to whom you would look for advice on whether the ventilation system in a general ward was suitable?

A I don't think that's a question that an Infection Control nurse would ask.

Q Right, okay. Why not?

A Because we don't deal with

ventilation. We don't understand-- I'm saying "we." As Infection Control nurses, we don't understand ventilation. We can't give advice on ventilation.

Q The reason I mention this is earlier on you said to me that this hospital was the first time you'd come across chilled beans.

A Yes.

Q So, I suppose one possible reaction to meeting chilled beams for the first time is go, "That's strange. What are they? Is that all right?" You're giving the impression that wouldn't be the way you'd have thought.

A No.

Q No?

A I think most of the Infection Control team said, "I've never heard of that before. That's something new," and, do you know, you assume that that was what was put in place because that was the best thing at the time or that design was best for a new hospital building.

Q You're slightly taking it on trust.

A Yes.

Q Because I suppose if someone brought a new piece of equipment into a ward, a movable piece of equipment, however expensive, you might have an opinion on whether it's a good thing for infection prevention and control.

A We would look, from an infection control point of view, as, "Can

you clean it, does it do the job you want it to do, and is it safe to use on multiple patients, or is there special guidance you would need to follow?"

Q So, one of the things I was thinking about was the dishwashers in the cystic fibrosis ward. I can absolutely see, from what you just said, that if someone turned up and said, "I'd like to fit a dishwasher to this ward," you presumably would get quite interested, "Are they going to clean it," that sort of thing?

A Sorry?

Q If someone suggests adding a dishwasher to a ward----

A Yes.

Q -- would Infection Control nurses think, "Well, I want to know who's going to clean that," or am I putting too much optimism in there?

A Mm-hmm. I don't think we would know if there was a dishwasher getting fitted in a ward.

Q Right. You say you walk around a ward----

A Yes.

Q -- and you're dealing with the practicalities.

A Yes.

Q I'm assuming that if you discover that everyone's leaving their lunch cutlery scattered around a sink, you'd be quite fierce.

A Perhaps----

Q And people are leaving, leaving bottles around on the sink where there's water, you'd be quite cross about that and take steps?

A Yes, uh huh.

Q Yes, right, and if people left equipment uncovered or you weren't cleaning stuff properly, you would you would pull people up for it?

A Yes.

Q That's part of what you do, and so if a sink wasn't cleaned in the ward kitchen, you'd be on that.

A Yes.

Q So, why wouldn't you be noticing if a dishwasher wasn't cleaned?

A I wouldn't-- I don't think any of us would open a dishwasher to see if it was clean inside. We----

Q Because what seems to have happened is that it comes out in 2017 that the dishwashers in the cystic fibrosis ward haven't been cleaned for some time, and the policy has changed, so there's now a new policy to ensure they're clean. Does this ring a bell for you?

A Yes.

Q Right. Now, the issue of the dishwasher comes up in an SBAR raised by Dr. Peters and others in October 2017. I'm not sure you'd necessarily have seen the SBAR, but they raise it as a concern. The response is, "Well, we now clean the dishwashers. We changed the policy."

What I'm more interested in is how can we be sure that there isn't something else going on that's not being checked, because you seem to be operating a policy, and I recognise you're just one person and I'm putting you on the spot on this, of, "Well, if it's in the building, we're going to sort of trust it's supposed to be there. We're not going to ask any questions." Do you understand what I'm saying?

A Yes.

Q Yes, and so that would include a dishwasher. "We're not going to check it's being cleaned because we that's not how we think." Have I got that right?

A I think a dishwasher doesn't come into the remit of Infection Control. That's within a kitchen area, and I'm not saying-- We don't audit kitchen areas. Our main focus is patients with infections. We will audit wards. We won't audit kitchens. Yes, if somebody said, "Do you know, I think this dishwasher isn't clean," I could look at a dishwasher and think, "Yes, it's clean," or "It's not clean," but I don't think that's the remit of Infection Control.

Q So, I wonder if we could go to document 12 in bundle 1. I'm going to just take a moment just to find the right page, because I think that's a question I should usefully ask you here. So, this is the second of two meetings, IMTs, that arise in 2017 out of the Cystic Fibrosis Ward, and the first one I'm not going to put up on the screen, but it's document 11, and your reported as being present. The thing that intrigues me about this is, on the next page, do you see how paediatric-- So, we'll start with adults first.

A Mm-hmm.

Q So:

> "Lynn Pritchard updated that she has spoken to the wards and the dishwashers are no longer in use until they have been checked. An engineer reviewed two of the dishwashers and the following issues were identified... 2 rinse aid containers in use rather than one and one detergent.... bottom filter.... build up of residue, found to have correct containers fitted but hoses were the wrong way around... [and the] detergent container found to be crystallising in bottom of container resulting in uptake into hoses and on into machine... the core kitchens are happy...."

I mean, I'm assuming the core kitchens is the kitchen in the core of each each ward?

A So, no, the core kitchen would be the kitchen on the floor.

Q Right.

> "...the core kitchens happy to

wash jugs and crockery and patients have been provided with bottled water until the machines have been checked. ”

Then something pretty similar comes out in Susan Dodd reporting back on paediatrics:

“...not all the dishwashers are in use in the [cystic fibrosis] wards... also check the high risk areas and there are no dishwashers in these areas. ”

So, what I'm wondering is if it's the case – and it does seem to be the case – that the dishwashers in the adult cystic fibrosis wards were pretty revolting by this point, to such that they cause all this concern, whose responsibility should it have been to make sure that there was a cleaning plan for them from when they were fitted?

A I would have thought at the time-- Now, those bullet points that I raised weren't my findings.

Q No, I think you're reporting about somebody else, yes.

A Mm-hmm. I think I would have thought at the time that it was the Facilities team had a responsibility for cleaning dishwashers, but then I think it was then reported that they don't, so I don't even know if there was something in place to clean the dishwashers.

Q No, I don't think there was. That may be the point, but the thing that makes me press you on this is that I take it, if you went into a ward and discovered it was dirty on surfaces on the floor, there was stuff littering in the corners, you would raise the issue----

A Yes.

Q -- because that's what you do?

A Yes.

Q Should not the Infection Control team have been spotted that there were dishwashers in these wards and ask questions earlier?

A No.

Q Why not?

A Because we don't check dishwashers. We walk through a ward. We see floors that aren't clean. We don't go into kitchens and look inside dishwashers. That's not----

Q Because if the dishwashers are a potential source of water risk to the patients in that ward, especially if they are people with immunocompromised conditions, why wouldn't you look at everything?

A Well, we don't look for risks within a ward. We assume that risks are managed within areas, and not just in relation to dishwashers. You assume that risks are managed. We don't look to see what are the risks. This particular issue with the dishwashers was raised by

Dr Peters, and it was following a mould-- found a black mould Exophiala, and it's from the literature. This was Christine explaining to me ‘n Susie Dodd that the literature-- it has been found in dishwashers-- I don't know if, at this point, that she had swabbed the dishwashers because I think the dishwashers were swabbed on maybe two occasions. So, following that, Susie Dodd and I would have looked at the dishwashers across this ward, and Susie's obviously looked at her high risk areas.

Q So, who is it, who is responsible for assessing the risk that the way a ward is set up and the equipment it's got and how it's built poses a risk to patients if it's not the Infection Prevention and Control team?

A I don't know.

Q Right. I think-- I’m just going to check where I've got to. Yes, I think I've seen it-- just for completeness. I think you might have already answered this, but I'll just double check. Can we go to bundle 3, page 36, please? This is an SBAR by NSS about the isolation rooms in Ward 4B from December 2015. I wonder if you'd seen it before? We can jump to the pages if it helps remind you. Go through two pages. A bit further. A bit further. It lists a series of recommendations to do with the ventilation. I wonder if you've seen it before?

A I have.

Q When did you see it?

A I don't recall when I saw that. I know I saw it in my bundles that I got, and it seemed familiar, but I can't say when I saw it----

Q Well, I'll show you another document, and then I'll ask you a question. We can go further on in the bundle to page 57. There's a October 2017 SBAR, and this is about the same ward but it's nearly two years later. You, again, jump through just to have a look and see what's going on. There we are. The assessment is there listing what should be done, and we'll keep going on to recommendations a bit more. Another page, stopping on page 61.

Again, we have a list of recommendations. It's slightly different, and this is October ‘17. Now, what I wondered is-- Obviously, this is an adult ward. There seems to be evidence that in December 2015, HPS advised-- made the first set of recommendations, but they weren't carried out, and so in October 2017 they made a new set of recommendations, and these were then carried out. Then the bone marrow transplant patients came back, and I'm assuming you wouldn't have been involved in the discussions of the technologies behind all this?

A No.

Q No. Would you have been told that recommendations from HPS weren't being complied with?

A I don't think I would have been told that.

Q Is there any way that you would have come across this information-- Would it have been raised at the senior management team for Infection----

A It may have been raised there. It may have been a verbal discussion between myself and the ICD at the time. We may have chatted about it, but I wasn't involved in it. I wouldn't be involved in the decisions in raising with Health Protection Scotland on this.

Q Okay. I wonder if we can look at one-- two more documents. If we go to Bundle 27, Volume 6. Now-- Yes, it's page 14. This is actually document 1, my Lord, but I'm jumping to page 14 because there's lots of repeated text before it. This appears to be an HAI-SCRIBE for replacing the ceilings in Ward 4B in August 2017. Now, if we can go through to the end of this document, you see how it's got, "Action 2, Lynn Pritchard." If we go back one page-- sorry, forward one page, we can see the action-- Page 20, please. We can see-- Page 21, please. Yes, we can see the signature box.

A Mm-hmm.

Q So, what I want to understand here is how did you first react to the news that the Bone Marrow Treatment ward in the hospital had suspended ceilings? Did it raise any concerns for you?

A No.

Q Why wouldn't it raise any concerns?

A I don't think I had enough information about a specialist ward like that in relation to ventilation, in relation to the design of a ward.

Q And so you've already actually explained that you didn't have the technical knowledge to know whether it should be 10 pascal pressures or HEPA filters. That's not your field. You've----

A No.

Q -- explained that already, and you explained that you've didn't know about the previous document-- the previous SBAR from 2015 and the later one, unless you were told it informally. This document here-- I wonder if we might, my Lord, at this point, take a break for 10 minutes? I've got one more question I'd like to ask, but it might be a good time to get an opportunity to catch questions from the room as well.

THE CHAIR: Very well. Ms Pritchard, what we need to do at this stage is discover whether there's questions in the room that have not already been covered by Mr Mackintosh, and he's going to canvas that. So, could I

ask you to go back to the witness room? We should be able to ask you back within 10 minutes to clarify whether we're at the end of the questioning or there's maybe a little more.

A Okay. Thank you

(Short break)

MR MACKINTOSH: I had the thing I was going to do, my Lord, and I have one other question.

THE CHAIR: Right. Two questions----

A Okay.

THE CHAIR: -- Ms Pritchard. Mr Macintosh.

MR MACKINTOSH: Well, two-ish, but we'll see. On this document, this appears to be an HAI-SCRIBE for some work that was carried out in August of 2017 to change the ceiling in Ward 4B.

A Yes.

Q You've had an opportunity to look at this. Does this ring a bell? Do you remember this event?

A Yes.

Q If we go to page 21, you are down to have signed this – I know this isn't a signed copy, I appreciate – and that's your name and email address in the third row.

A Yes.

Q Now the question-- the odd thing about this one is that although it says Dr Inkster's name, at this point, she's off sick.

A Okay.

Q And I'm wondering which Infection Control doctor-- was another Infection Control doctor, a yes or no answer will do----

A Yes.

Q -- asked to sign this?

A Yes.

Q And is this the Infection Control doctor who we know as-- of witness 7?

A Yes.

Q Yes. Were you involved in asking witness 7 to sign this?

A I don't know if I spoke verbally to witness 7, but I do know that I would have sent the SCRIBE to witness 7 and asked them to review it----

Q When you----

A -- as was our normal-- sorry, as was our normal process.

Q How did they respond?

A As I recall, they had responded to say-- providing my comments were accepted and added, then they were happy with the SCRIBE.

Q Was there any suggestion from them that they didn't know enough about the previous history of this project to sign up to this?

A Not directly to me, no.

Q No. As far as you're aware,

was that information given to somebody else?

A Yes.

Q Right. What I want just to understand is that this is a point in time, I think – we can take this off the screen – where there are fewer Infection Control doctors available in the hospital than they ought to be. Would that be a fair point?

A Yes.

Q Because some people have resigned their sessions?

A Yes.

Q Right, and you're therefore asking a smaller number of people to sign things off and to do the work?

A Yes.

Q Right. In generality, not this particular one but in generality, would you accept that with a HAI-SCRIBE as an Infection Control doctor or even as a nurse, you need to know what's happened in order to sign it off, to understand it. It's not just a sort of formal thing?

A What the role of the Infection Control nurse and the Infection Control doctor was to-- the SCRIBE document lists the work being undertaken. It also lists the potential risks and what the mitigations are put in place to reduce or exclude those risks. So I think, if I was being honest, I would say that you could complete a SCRIBE without any

background information because you don't know-- you don't have to know what led to this SCRIBE being put in place.

Q But for a more complicated one, you might need the background information?

A You might need the background, or you might like to know what the background is. I'm sorry, I don't know if I'm making myself clear.

Q No, that's okay. I want to move onto another topic which is Cryptococcus.

A Yes.

Q So, if we go to your statement bundle, page 275, we asked you about the Cryptococcus case. You provided some detail, and we gave you details of various bundles of IMTs which I think you might have attended, and you provided a lot of detail on the next page. I want to go to page 277. There was, I understand, a serious critical incident report produced following the unfortunate death of these two patients.

A Yes.

Q Yes. I wonder if we can look at bundle 14, volume 2, page 128.

THE CHAIR: Sorry, could you give me the bundle number?

MR MACKINTOSH: Volume-- no, I've got this wrong, sorry. Page 505, bundle 14, volume 2, document 128, page 505.

THE CHAIR: Thank you.

MR MACKINTOSH: Now, this appears to be an email in June of 2019 about an SCI. Do you see that?

A Yes.

Q And then, if we go on to the next page, someone called Myra Campbell has modified the response. Do you see that on15 August?

A Yes.

Q Now, you're not copied in to this bit of the email but if we go on to page 507, there's-- at the bottom of the email, do you see there's an email from Miss Campbell to Melanie Mccolgan and others copied to Dr Inkster and you and Professor Jones----

A Yes.

Q -- that you and-- that you and Teresa have made changes?

A Yes.

Q So do you remember being involved in making some changes to the SCI draft?

A I do recall the meeting we attended where this was discussed. I do recall the document coming out, but it was quite far down the line after the initial meeting and I don't know if Teresa and I sat together to-- Teresa Inkster, Dr Inkster----

Q Yes.

A -- sat together to make the changes or made the changes

separately.

Q Could we go to 508? So, Dr Inkster then sends an email which she doesn't copy you into reacting to a further change in which she's not very happy, and I wondered if you knew that she ended up being unhappy about the terms of the SCI?

A I don't think I knew. She may have verbally said to me, but I don't recall her at the time.

Q So the question I want to understand is that what seems to be her complaint, in very simplified terms, is that the local team, that's her and the treating clinicians, have reached a particular conclusion and written a particular thing in the SCI and then it's been changed by a more senior executive part of the health board. Is that something you were aware of?

A Sorry, I was just looking at that. I don't think I was aware that it was changed, no.

Q No. Okay, right. Now, if we remember, we were looking back to your statement on page 277. We asked you about what we called Dr John Hood's report----

A Yes.

Q -- which I think is technically the-- described as, "The report prepared by the Cryptococcus expert advisory subgroup," in April 2022.

A Yes.

Q Although there has been some evidence that NSS didn't sign up to its conclusions. Were you aware of that?

A No.

Q No, and you say you hadn't read the report?

A Not at that time I hadn't, no.

Q So that's June-- April 20----

A But I have read it now.

Q Yes, but in April 2022, you were still lead ICD for the adult hospital----

A Yes.

Q -- (inaudible) hospital. So why wouldn't it be important for you to understand what had happened in this particular incident?

A I don't recall receiving that report.

Q You just weren't sent it?

A I can't recall being sent it, no.

Q Okay, right. Well, thank you very much. I think I have no more questions for this witness.

THE CHAIR: Ms Pritchard, that is the end of your evidence and you're therefore free to go, but before you do, can I say thank you? Thank you for your attendance this afternoon and thank you for answering questions and thank you for the work that will be involved in preparing the written witness statement, which is also part of your evidence, but you're now free to go. Thank you very much.

THE WITNESS: Thank you.

(The witness withdrew)

THE CHAIR: Now, Mr Mackintosh, as I recollect, Tuesday morning is not a sitting day. Am I right about my recollection?

MR MACKINTOSH: I think we might have a witness, but this is Mr Connal who's taking the witness. Allow me a moment just to double check.

THE CHAIR: Yes.

MR MACKINTOSH: Because I wouldn't want to mislead core participants about such an important matter.

THE CHAIR: Yes. My recollection is sitting in the afternoon but not in the morning, but I could be wrong about that.

MR MACKINTOSH: Well, no, we've arranged an extra witness just to make things helpful. So at the moment, Dr Alan Mathers is scheduled to give evidence on Tuesday morning, followed by-- and that'll be Mr Connal, followed by Professor Stephanie Dancer in the afternoon, which is with me.

THE CHAIR: Right. Well, in that case, we'll see each other all being well on Tuesday morning at ten o'clock. Thank you.

(Session ends)