SCOTTISH HOSPITALS INQUIRY

Hearings Commencing
19 August 2024

Day 9
Friday, 30 August 2024
Ms Karen Connelly
Ms Pamela Joannidis

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10:03

THE CHAIR: Good morning. Now, Mr Connal, our first witness, I understand, is joining us remotely.

MR CONNAL: That is correct, technology willing, my Lord. The witness this morning is Karen Connelly, who joins us from France, I understand. I hope.

THE CHAIR: (After a pause) I do understand we managed to make contact earlier this morning.

MR CONNAL: I understand that is, indeed, correct. Contact was made and the sound was tested, eventually.

UNKNOWN SPEAKER: (After a pause) Karen, can you hear me?

THE WITNESS: Yes.

UNKNOWN SPEAKER: Would you be possible to just-- maybe rejoin again, please?

THE WITNESS: The WebEx?

UNKNOWN SPEAKER: Yes, please.

THE WITNESS: Okay.

THE CHAIR: (After a pause) Good morning, Ms Connelly. Can you see and hear me?

THE WITNESS: Yes, I can. Good morning.

THE CHAIR: Right. Good morning. We seem to have a little glitch, but it may now be sorted.

THE WITNESS: Yes.

THE CHAIR: As you understand, you're about to be asked questions by Mr Connal, who you may also be able to see, and certainly when he is asking questions, you should be able to see him. But first, I understand you're prepared to make an affirmation.

THE WITNESS: Yes, I am.

Ms KAREN CONNELLY

(Affirmed)

THE CHAIR: Thank you, Ms Connelly. Now, I don't know how long your evidence will take; it may take much of the morning. We usually take a break at half past eleven our time, but if, for any reason, you want to take a break at any time, just give an indication and we can do that. But I'll now hand you over to Mr Connal.

Questioned by Mr CONNAL

MR CONNAL: Thank you, my Lord. Ms Connelly, good morning.

A Good morning.

Q I hope you can now see me at least at this point.

A Yes, I can.

Q We may, on occasion during your evidence, ask you to look at documents, and I understand you have a means by which that can be done.

A I do, yes.

Q And I think you've been given an indication in advance of documents that you may be asked to look at, so you had a chance to have a little look in advance. Is that correct?

A That's correct, yes.

Q Thank you very much. Now, am I right in understanding that you have provided a witness statement with which you're familiar, and are you content to adopt that as your evidence at this Inquiry?

A Yes, I am.

Q Thank you very much. Can I just also ask, based not on anything that you have done at all but on other experience, because you're a remote witness, if you would be good enough not to receive messages, emails, WhatsApps or the like during your evidence, that would be very helpful.

A Of course.

Q Thank you very much. Now, just a little bit of background, if we can start with that. Your presence as part of one team or another at what I'll just call for short the Queen Elizabeth Hospital was sporadic in the sense you were there at one time, then you went away to other jobs, then you came back temporarily, then you went away again, is that correct?

A That's correct, yes.

Q And in outline, your position was that you were part of the project team between the summer of 2009 and about the middle of 2015, is that correct?

A That's correct, yes.

Q And then you went off to do other things. You returned for a period of a few months, I think, as illness cover, is that correct?

A Yes.

Q Can you remember who you were covering for?

A Yes, I believe it was David McDonald, the site facilities manager.

Q Thank you, and then you went back to other tasks that you were doing elsewhere within the Board, and then you came back in a general manager role, is that right, in January '18?

A That's correct, yes.

Q And was that a general post with a kind of wide-ranging estate responsibility?

A It was general manager for Estates and Facilities for the Queen Elizabeth campus.

Q Thank you, and I think you remained in that until about the middle of 2019, is that correct?

A That's correct, yes.

Q When you moved and ultimately you retired in 2020. Am I correct about that?

A That's correct, yes.

Q Thank you very much. Now, when you were in the project team in your first stint associated with the new hospital, you were dealing, as I understand it, with responsibilities centred on something called soft facilities as opposed to hard facilities, is that correct?

A That's correct, yes.

Q Now, I rather unkindly described this to a colleague recently as “pillows rather than bricks,” but am I right in understanding that it can sometimes be called the hotel side of facilities as opposed to the building side specifically?

A Yes. It was once known as hotel services and, in the last few years, it became Facilities and Estates, yes.

Q Right. In fact, your background, as you helpfully set out in your witness statement, was initially in catering before you moved into health care work on facilities----

A That's correct.

Q -- and, ultimately, general estates work. Is that correct?

A Yes.

Q Thank you very much. Just to give us a very quick idea, when you were on that project team, what kind of things were you, wearing your soft facilities hat, looking at? Because I can understand-- you saying your statement, for instance, you were looking at the design of the kitchens. That's a perfectly logical thing, but apparently you were also looking at automated guided vehicles.

A Yes, that's correct. That was one of the biggest innovations towards soft facilities. Within the new hospital was this system of automated vehicles because they would transport a lot of goods and services, including the catering trolleys, linen cages, waste bins, etc.

So, they were going to reduce the-- particularly the manual handing, which was normally undertaken by our portering staff. So, it was a big innovation for us within the hospital, so there was quite a lot of work involved in it, and it was quite-- it was new to Scotland. No other hospital had this system, so we had to do a lot of investigation into it.

Q Yes, and when you were working in that project team, did you have any kind of guidance as to what you were required to deliver at the end of it? Was there somewhere you went to find the parameters of what the different teams had to end up delivering?

A No, I didn't have a job description, if that's what you mean, in terms of my membership of the project team. I had previously been-- worked as the commissioning manager for the new Victoria hospital, so I think Alec McIntyre at the time thought with my experience of

that, then I would be a fit for the new Queen Elizabeth Hospitals project. So, I didn't have anything in writing to say what my role was, but it evolved over time in terms of what I was looking at in regard to the soft facilities side.

Q Thank you. Did you have occasion to come across something called board construction requirements?

A I did, indeed, yes. Yes.

Q And what were they?

A Well, the board construction requirements were sort of-- well, we sort of referred to it as the Bible in terms of what was outlined within the contract that the Board expected to be delivered by the construction company.

Q Thank you. When you were working on that project side, did you have occasion to get involved with anybody from the Infection Control side?

A Yes, there was always somebody from Infection Control that was part of the project team. Initially, when I started in 2009, Annette Rankin was the infection control nurse member of the team, and then she moved off to another post, another organisation, and she was replaced by Jackie Stewart, who was the infection control nurse that was part of the project team.

Q Thank you. Now, I'm just-- as you probably gather, I'm taking the order of my questions from your witness

statement, broadly speaking. So, if you need to refer to it at any stage, please just do indicate. Another thing I was going to ask you, whether you came across, was something called BREEAM, B-R-E-E-A-M----

A Yes. I mean, that was a requirement for the previous commissioning role I had but also with the Queen Elizabeth Hospital-- that BREEAM was a very high-priority objective for the new hospitals to achieve this BREEAM award.

A Now, in your witness statement – you don't need to look it up at the moment because it's just a very short point I'm wanting to take from you – when you're asked about BREEAM, you said:

> "[You] would describe BREEAM as being a very important factor for the project director. It was a priority for him to achieve this as an award."

Why did you phrase your answer like that? Was this something that was made known to you?

A I don't think so. I think it was generally what was felt within the project team, that this was, you know-- it was almost like a-- you know, it was a good achievement for the building to meet the criteria of the BREEAM in terms of its efficiency.

Q Thank you. Now, I'm going to jump ahead and then come back again just by asking you a couple of general things. Do I take it, from your background and experience, that certainly in the period of the project team, you wouldn't have regarded yourself as an expert in either water systems or ventilation systems?

A Not at all, no.

Q Thank you. I wonder if you could look at a document. It's bundle 17, document 70 at page 2855. This is an email sent to you in December 2009. I think you were asked about it and dealt with it in your witness statement, and it's sent to you by a Mark Baird, who I think the Inquiry is aware is with a firm called Currie and Brown. Now, according to your witness statement, you'd just joined the team at that point, is that right?

A Yes, I think it was September-- mid- to end of September I joined the project team in 2009, yes.

Q Right. Why was this, which appears to relate to something called the M&E log and the ventilation strategy-- why was it sent to you?

A Well, that's what I did say in my witness statement. I mean, I have no recollection of this document, but I did say that we-- The project team was currently based in our offices in Hillington at this point. This was before the project team offices were established on the Queen Elizabeth site, and also there was meetings held-- early morning meetings.

As you can see, this email was sent to me at quarter past eight in the morning, and the only thing I can ask, though-- that there were people gathered in the project offices for a meeting, and somebody asked me to print off-- At that time in 2009, not everybody had access to laptops or iPads, so there was still a lot of paper copies about.

So, I was usually in early in the morning, maybe before the admin people, so-- and that's the only thing I can honestly think of in terms of why I would have been sent that because, you know, there's no-- I can-- There's no other email trail associated with-- it's just that email with no message on it, so.

Q Yes, and had you anything to do with the substantive content of that email----

A No.

Q The M&E log or the ventilation strategy?

A Absolutely not, no.

Q So, other than the fact that you can see it was sent to you and you think it might have been for printing, you know nothing about it. Is that fair?

A That's correct, yes.

Q Thank you very much. If we move forward a little bit until we start to

look to the period when you were heading towards handover – so handover from the contractors to the Board – you were asked one question about cleaning, the kind of issues that arose about cleaning at the time, and you said that:

> "Cleaning issues were affected by ongoing work and also by incomplete work having to be completed."

Is that correct?

A Yes, that's correct. Yes.

Q What was the problem there?

A Well, we had-- as part of our building readiness programme within soft FM, we had a schedule of-- in terms of how we were going to clean the building, do what we call a clinical clean for the building, and readiness for the migration of patients into the building.

So we had a programme about how we would do that, but it was subsequently affected because we would be cleaning rooms and then subsequently we discovered that there were defects in the rooms, so there were contractors going back in and doing more work to the room, which meant we had to clean it again. So that was quite a common issue that domestic staff had to deal with at the time.

Q Thank you. Now, I just wanted to come to another question. I'm sorry if these don't necessarily link in logical order, but we won't be going through the whole of your statement, you'll be pleased to know. We won't need to ask you about everything, but at electronic page 340 of your statement-- we'll just bring that up. At the foot of that page, you're asked about something called water flushing, and then you say that:

> "[You] arranged with the domestic services manager for the domestic staff to incorporate the flushing of taps in clinical areas into their cleaning regime at the request of the Estates team, and records were completed."

Now, are you able to give us-- and I appreciate it's a while ago now, but are you able to give us any more information about what exactly staff were being told to do here that you're talking about?

A Yes. Well, the domestic staff, as part of their cleaning duties, were asked to flush all water outlets within each room, en suites, within any general ward environments for a period of-- I think it was two minutes at a time. They had to do that every day to make sure that the water was being flushed through the system.

Q And----

A Sorry, we just had dozens or, you know, tens of maybe-- I don't know. I

don’t know when we reached 100, but there was, you know, a lot of domestics within the building at that point, so they were well placed as they were going to the wards on a daily basis for them to be able to do that flushing.

Q So, they're flushing for two minutes every day of all the water outlets. Is that----

A Yes.

Q -- what your recollection is? And you said that records were completed. Were these electronic or paper? Can you remember?

A They were paper. Paper records, yes.

Q Was anyone charged with checking that this was done?

A Not that I recall. The paper records were handed in to the office at the front desk, probably by the domestic supervisors once they were collated by the domestic assistants, but whether anybody actually went through them to verify that all areas had been done, I can't say. I had no recollection of that being done.

Q Thank you. Another sort of question about checking, if I may: on a later page of your statement, you explain that there was a supervisor for Capita carrying out checks to the building, and people like yourself and other members of the team were asked to do a

programme of checks before handover and record what you found. Can you remember doing that or what it was you did?

A Yes, so there were a number of folders made up for members of the project team, even for those of us that had not actually been involved in any-- in checking for defects or doing any sign-off of rooms. So there was a number of us all-- participated in this, and we were given folders with our allocated areas to go with checklists to tick off what was done or what hadn't been done in each of the rooms.

Q Can you remember-- Sorry. That's the problem with online; I mustn't speak over you. Please finish your answer.

A It was just to say we were given certain areas to look at and a number of rooms to do, and then we had to bring those folders back, so.

Q Can you remember what you were reporting back hadn't been done?

A Yes, it might have been maybe the finishes in terms of joints on flooring. It could have been paint-- maybe paint finishes hadn't been completed. There were scuff marks on walls, that type of thing. Generally not a sort of engineering or electrical point of view but generally something you could see visually.

Q Thank you. So I take it from

your answer to the earlier question that, in effect, you were a disparate group of people being asked to help out by doing that checking task?

A Yes. Well, we were members of the project team, so we knew the buildings inside out.

Q Right.

A So we were equipped in that way to be able to find our way about and to know what we were looking for, but we were all, as I say, members of the project team itself.

Q Thank you. Now, I wonder if we could look at bundle 12 at page 66. Now, this isn't very easy to read, but I'm told it's a process for recording defects and issues so that there was a record of them being dealt with. I don't know whether you've had a chance, at least briefly, to look at that?

A I have, yes.

Q Yes. You were asked about it in your witness statement. I just want to make sure we understand the answer that you've given, which is at 344 of your witness statement. I think what you had told-- what you had said in your witness statement was that you hadn't seen this before. You were shown it for the purposes of your witness statement, but it would have been informative to have seen it at the time, and then the questioner asks you, "How would it have

been informative?" and you say:

> "I would have known the size and scale, but ultimately we managed to migrate the patients into the hospital. I don't think it would have any impact on how the project turned out."

Can you just help us understand this comment about not having that document not really having any impact, just so we can understand what you're trying to explain to us?

A Right. It was the list of the defects that was prepared by Capita Symonds in relation to the handover documentation. So, I don't recall having seen it at the time, but I suppose what I meant was that the list in terms of the defects that I was referring to in terms of where maybe flooring hadn't completed or where the walls had been damaged and they were subsequently repaired, then all that work was done, so therefore we were able to carry on with the cleaning and get set up from a soft facilities perspective and do as much as we can before the migration of the patients into the buildings.

Q Thank you. Did you manage to get all of that done before the patients migrated?

A We managed to-- from a soft facilities perspective, which I'm speaking

of, we were able to get all the rooms cleaned and everything set up as required for the patients to be migrated.

Q Thank you. Now, I just want to ask you briefly about one or two other things, some of which we've heard about from other witnesses. I think you've probably heard the phrase "asset tagging"?

A Yes.

Q And you know what that is, I take it?

A Yes.

Q And I think we've heard from other witnesses that it's an essential part of being able to do planned preventative maintenance, is that correct?

A Correct, yes.

Q So, the only thing I wanted to ask you about that was to give us some idea of when you remember it got resolved. You were asked about that in your witness statement, and you said, well, you weren't involved in this at the time of handover, but it was still an issue in 2018 when you came back to your estates manager role. Was that correct?

A General manager for Estates and Facilities. Yes, that's correct. It was still an ongoing issue. I think then Ian Powrie was heavily involved in dialogue with Brookfield at the time to make sure that this was all done, and yes, I mean, it was-- it wasn't, you know, a key

requirement for-- within the Board's requirements to have this asset tagging, just as you've described, in terms of making sure that the equipment was properly maintained and that you had a planned replacement programme in place as well, once that equipment came to the end of its lifespan. So, I think it was essential to have.

Q Yes, thank you very much. I just have a question for you associated with the topic of chilled beams, but you'll be pleased to know I'm not going to ask you about any of the technicalities of chilled beams because that's not your area of expertise, but I think you were aware that there had been some issues with chilled beams and drips and black stuff and so on, is that correct?

A That's correct, yes.

Q Just in a couple of sentences, tell us when you first realised there was an issue that impacted on your areas of concern.

A Well, when we got reports that there was either water on floors or this black substance coming out of the chilled beam and hitting-- either it was hitting patient equipment within the bedrooms or it was creating a health and safety risk in terms of water on the floors, so our domestic staff were called to rectify whatever contamination had been found within the room.

Q Yes. Well, I think this allows me to ask you a general question because obviously you have knowledge of issues around the cleaning regimes. If, say, a nurse or another member of the nursing staff and the like thought there was anything substandard with the cleaning that had been carried out in a particular location, was there any method of them reporting that to you?

A Yes. Well, they could do it directly with the domestic supervisors. You know-- domestic assistants would be allocated to each ward and each domestic assistant would have a supervisor to report to. So, they could contact the supervisors and that could get escalated, if required, by the supervisor to the domestic management and subsequently up to myself if it was serious enough, yes.

Q Thank you. Now, headings were used as your witness statement was put together and I'm coming to one which, oddly enough, given your knowledge, is under the heading of "Water Maintenance." So could we go to 369, please? What I'm going to ask you here are about SOPs, which I think we know means standard operating practices, is that correct?

A The standing (sic) operating procedures, yes.

Q Oh, right. Standing operating procedures?

A Yes.

Q Thank you very much, and you say at the top of that page that, when you arrived in January 2018, you had responsibility for these teams, which included all SOPs were adhered to, and can-- just tell us, how did you organise that these got done?

A Well, again, it was through our-- excuse me. We had daily team briefs, so obviously there were standing-- standard operating procedures that were in place from very early doors. I mean, they were in common usage throughout the Health Board in all departments, but, obviously, as we went-- became more operational within the building, then there was new operating procedures that needed to be developed.

So, there was usually-- whether-- the appropriate people, whether it was the domestic service managers, would work with Infection Control to work out what these procedures were, where to be. They would be written up, they would be agreed and then they would be put into the folders, the domestic services folders, which they adhere to in terms of all their operating procedures. So it was up to the supervisors and the domestic services manager to make sure that the staff were carrying out the procedures as written.

Q Yes, and I think on that page you point out that, as time went on, new issues arose about which new SOPs had to be created. For instance, you mention point-of-use filters, which was something you had no experience on, is that correct?

A That's correct, yes.

Q Did that involve training or--? What did you do when something new like that cropped up?

A Yes, it did. You know, we would develop-- we developed a SOP with Infection Control in terms of what the domestics should and shouldn't do in regard to the point-of-use filters being applied to the taps and shower heads within the wards. So, as well as the SOP, then there was training carried out. Again, it was-- we use a sort of cascade method in terms of managers will train supervisors, supervisors would then train the domestics on the correct use and implementation of the standard operating procedure.

Q And perhaps just to correct a small, what I think is a typographical error, in the middle of that page, there's a note saying, "New concerns have been raised regarding the drainpipe work," but actually, that should be the "drain," space, "pipework," is that correct?

A That's correct, yes.

Q And you explain later that this had been raised because you think it might have been Teresa Inkster had thought the design of the drains could be causing splashback. Do you remember that cropping up?

A Yes, that's correct.

Q Thank you very much. I wonder if we could just look briefly at another document, please, which is bundle 1 of June '23 at page 9.

THE CHAIR: No, that can't be right. Got the wrong one.

Q Sorry, that's my mistake. We should be looking at page 96 of that bundle. Now, this is a section from an incident management team meeting about a water incident where I think you were present. If we could just go back to 94, please. I think you're there. Yes, you are. This is a meeting you're present at. Can you just help us: why were you there? What was your role at a meeting like this?

A Was this in-- in 2018? I'm sorry, I've lost the heading of that.

Q Sorry, it's 4 June 2018. It's an IMT meeting about-- heading is "Water System Incident."

A Yes. At that time, I was the general manager for Estates and Facilities, so, given the nature of the water incident, then I was-- it was part of my remit to attend.

Q Yes, and was there something

about the cleaning of drains that had cropped up at that time that was new?

A Yes, a lot. Up until that point, there'd been-- it certainly wasn't part of the domestic cleaning schedules that they should do anything with actual drains on wash hand basins, and I understand, around that time as well, that there was no guidance or drain cleaning-- It was said that it shouldn't be cleaned and I think that was to prevent any further-- any possible contamination, so--

But the group-- the water system incident led us to reviewing that and they introduced a programme of washing the drains. But, again, we had to work through how that would actually be done, whether patients could be in the room at the time and how much agitation should be used, what cleaning materials or chemicals should be used to do that.

Q Were these decisions ones that you were contributing to in a technical sense, or were you to deal with implementation?

A I would say from-- I was not technically able to contribute to that decision making. I supported the group because the experts were around the table and certainly a big part of my role was then to make sure it was implemented along with Estates and Facilities colleagues.

Q Yes.

A Along with Infection Control, obviously.

Q And just so we're clear, and perhaps to avoid looking at repeated IMT minutes, would I be right in thinking that that was generally your role? If you attended meetings of this kind, you were to make sure that what needed done got done?

A Yes, I would agree.

Q Thank you very much. Let me ask you another question: did you become aware of something that's generally called the DMA Canyon report of 2015?

A Latterly. I can't even remember when, whether it was into 2019 before I was actually aware that this was-- this was a-- this report had been provided and it hadn't been acted on.

Q Now, can we go back to your witness statement, in fairness to you, so we can see what you said when you were asked about that? Go to 376, and the questioner asks you when you first became aware of the DMA Canyon – another typo – 2015 report, and you say, "I don't remember. It may have been 2018."

A '18, it could have been. I'm not clear on dates, so, yes, it could have been 2'18 or 2'19.

Q And how did you-- If it was 2018, you'd be back in the hospital as

Estates manager.

A Yes.

Q Can you remember how it came to your attention?

A Mary Anne Kane told me about it.

Q Right, and did she tell you any more, other than there was this report? Did you get any more information about it?

A No, I didn't. I don't think it was up for general discussion.

Q So she just mentioned it to you, as far as your recollection goes?

A She mentioned that there was a serious issue and it was regarding a report that had been received in 2015 that hadn't been anxious-- hadn't been actioned, and it was now coming to the fore and it was a serious matter. So, I think there were other discussions regarding that report going off, but I wasn't party to them.

Q Right. Thank you very much. We move on to 379, which is both on and back at the same time because we see a heading on that page, which is the, "Water Incident 2018." Now, you only arrived back in January of 2018. Can you remember what the state of play was about what became called "the water incident" when you got there?

A My recollection was that it was still a case of trying to ascertain where

the problems were arising from. So, there had been these IMT groups set up previously that I'd been told about, and then obviously when I joined in January 2018, I started to attend IMTs, so there was a lot of anxiety at the time.

Q Just so we can get that question in context, you were saying there was a lot of anxiety at the time. Can you just explain that a little further? Why was there a lot of anxiety?

A I think because there was measures being taken to resolve the problem in terms of flushing, etc., additional cleaning methods being put in place, but it didn't seem to stop the infections occurring, so it was an ongoing process. Just when we thought that there had been a solution found, then something else seemed to pop up that required further action to be taken.

Q I think you attended a number of IMTs in your capacity as Estates manager at that time, is that correct?

A I did, yes.

Q Can we just look, perhaps linked to your previous answer, at page 380? Now, in the bottom half of that page, you're being asked about these IMTs on the water incident.

A Yes.

Q You say (sic), "What do you recall about how matters were managed?" And you describe it as "a

very intense period."

A Yes.

Q So what was the tension about?

A Well, I think this is as I've said, that we had these problems with the water and we didn't seem to be resolving the issues, and that the infections were still coming up, so. Obviously, there was a lot of intensive work by Estates staff and Infection Control staff, Facilities staff in terms of trying to resolve the situation, so, yes, it was very intense in that way.

Q Now, quite an interesting phrase appeared in that answer. You say you were trying to both "find a cause and a solution at the same time."

A Yes.

Q Thank you. Again, just to get your role in context, the Inquiry is aware that something called the Water Technical Group was formed and sat on dates in 2018 and 2019. Were you a member of that group after it was set up and while you were general manager?

A Yes, I was. I did attend several of those meetings, yes.

Q Did you have a particular role at these meetings?

A No. Again, similar to the IMT in terms of my responsibility to make sure that what actions recommended by the Water Safety Group were carried out.

Q Thank you. Let me ask you, then, about another group: was there something called the Board Water Safety Group? Do you remember that?

A Yes, yes.

Q When you were asked about that in your witness statement, you had said you attended for the first time in December 2018 in your capacity as a general manager.

A Correct.

Q What was the function of the Board Water Safety Group?

A It was an overarching water safety group for the whole of the Board so that representatives from each of the sectors within Glasgow-- the Estates managers in particular and general managers all attended, and there was a set agenda. There was Infection Control colleagues, Infection Control doctors, clinical staff were represented on that group, so it was the Board's most-- the highest group, if you like, in terms of water safety for the Board.

Q What, so far as you could gather, and you won't have been at that many meetings because you only started going in December 2018-- As far as you could work out, what was group meant to achieve?

A Water safety, that there was-- that the water systems throughout all hospitals within the Board had safe water.

Q Thank you. Right, I'm going to

move on to a completely different topic now. Thank you for these answers, and I want to ask you about a situation which you had some involvement in, when a decision was taken to close Wards 2A and B and move the patients elsewhere, particularly to 6A. Do you remember that?

A Yes, yes.

Q Can we just have your witness statement at 413, please? Now, you're asked there about what led up to the decant from 2A, and you say it "was a culmination of water drain and ventilation issues." Can you remember what the ventilation issues were?

A I can't remember specifically what the technical details of the ventilation issues were.

Q I think there is an issue of controversy about what people were told at the time, but do you know what was eventually done to the ventilation system in 2A?

A My understanding is it was a substantial amount of work to the ventilation system because I think the initial decant was only to be for weeks or a couple of months, which it then turned out to be-- I can't remember. I don't know. I think I'd left before they'd even moved back into the ward, so that would have been, what, 18 months or so that they were decanted. So, I think when they started investigating the ventilation system within Wards 2A and 2B that much more detailed changes had to be made to it to make it suitable.

Q Thank you. In terms of process, you're asked – about two-thirds of the way down page 413 – who would have signed off on the move. Perhaps that question infers that that would have been a single individual, Karen Connelly or someone----

A Yes.

Q -- and you say, well, it's not the question of some individual signing it off. Can you just explain your understanding of how a process like that, in particular the 2A move, was done?

A Well, through the IMT. The IMT was put together to resolve the issues, and the IMT came to the conclusion that the only way to resolve the water and ventilation issues within the wards was for them to be decanted. There was a lot of discussions about what other accommodation would have been suitable, and then they came to the conclusion that 6A was to be that. So, that was agreed at the IMT by all members to say that this was-- this was the move that was required and that would have been escalated up to, you know, director, chief executive level for them to make the final decision in terms of--

Because obviously there was other ward staff that had to-- that would be impacted upon this move, i.e. the staff, the patients that were coming into 6A would have to be decanted. So, it was no longer just a children's hospital issue; it was now becoming a much bigger issue, not just for the Queen Elizabeth and then for Gartnavel General, who had to accommodate the patients that were relocated, so it couldn't be done just as a matter for the IMT. It had to be escalated.

Q Thank you. I think that the names you mentioned in your answer in your witness statement were Jane Grant, who I think we know was the CEO at the time, and Kevin Hill?

A Yes, he was the director of children's services at the time, I think, yes.

Q Again, just so I'm sure I understood your answer, it becomes not just a question for the Children's Hospital because you're decanting to an adult ward, and then I think that I pick you up correctly in saying that there's also further issues because you've got to decide where the patients from the adult ward have to go?

A Correct, yes.

Q Some of them had to go to Gartnavel, is that right?

A Yes, I believe the patients from 6A were transferred down to Gartnavel and, of course, the staff would have to go with them as well, so there would have to be staff consultations in that regard, too.

Q Thank you. You were also asked if you knew anything about a risk assessment being done for this idea of moving the cohort that were in 2A/B into 6A.

A I really can't-- Yes. I really can't recall a risk assessment being done. I know there were certainly plenty of visits to ward 6A by members of the clinical teams and Infection Control to find out if it was a suitable decant facility for them, but I can't say I can remember a risk assessment being carried out.

Q Thank you. You were also asked – just on the next page of your statement, 414 – if you had any concerns, you know, wearing the hat that you were wearing, and you're saying, well, "... others had a greater understanding of the clinical..." and so on, "clinical issues," but you thought there might be an issue about the facilities that were available in----

A Yes, (inaudible)----

Q -- the ward?

A Yes, Ward 2A and 2B had been designed specifically with that cohort of young children in the ward, so there were facilities within that ward that we wouldn't provide in an adult ward, i.e.

like, a family room, playrooms for lessons, etc. So I knew there would be differences in terms of the layouts and design of the rooms, but they were able to overcome those and make uses of other rooms within the ward to accommodate these other requirements.

Q Thank you. In the same page of your statement, you're asked about another question, which was mould behind the IPS panels. Are these panels at the wash hand basins?

A Yes. These are panels that are fitted in what were essentially wet rooms within the en suite shower and toilet facilities. So, it was discovered when-- I think it was when they were redoing some flooring in some of these areas before the decant that they took the panels off the wards, and I think there were some questions around them not being the appropriate type of panelling that should have been in a wet room, i.e. it wasn't the appropriate water-resistant type, so there was concerns raised about that.

Q Thank you. Now, I think in the next section of your statement, you were asked about technical reports that were prepared on ventilation in Wards 2A and 2B, and you say, well, you weren't involved in the instruction of these reports.

A No.

Q Do you know generally what the concerns were that were being expressed about the ventilation in 2A and 2B?

A Well, I think it was mainly the chilled beam model within the ward, I think, was a concern and also about positive and negative pressures within rooms as well, but that's as much as-- of my understanding of it.

Q Thank you. Well, let me come to a completely different topic, which is pigeons and Cryptococcus.

A Yes.

Q Now, you start to deal with this in your witness statement, just so we know where we are, at 418. I'll go back to the statement in a minute, but I'd just like to ask you a number of questions about this. You arrived as a general manager in 2018.

A Correct, yes.

Q Now, in your capacity as an Estates manager, did you have any understanding of what Cryptococcus was at that time?

A Not Cryptococcus, no.

Q Did you know anything about a possible linkage between Cryptococcus and pigeon muck, if I can use that word?

A No, not at that time, no.

Q Can you remember when you first learned there was a possible link between Cryptococcus on the one hand

and pigeons and their output on the other?

A Yes, I think it was January 2019. I had been on leave for a period of time and I came back and my first day back, Mary Anne Kane had asked me to attend a walk-around of the plant rooms with herself, Colin Purdon, and I believe Dr Inkster might have been present as well because there had been suggestions that some linkage between infections was due to the pigeon mess around the hospital and in some way that it's got into-- whether it was a ventilation system or had become-- had got into patient rooms.

So, that was my sort of first experience of what turned out to be, you know, a big issue-- was the-- And that was-- I think it was around about 8 January 2019.

Q Now, we'll come to the general question of pigeons. Would that mean that, at the time, before you received this information, so far as pigeons were concerned, you weren't paying any particular attention to things like plant rooms where the air handling units were?

A No, I wouldn't say that. We had pigeon problems on the Queen Elizabeth site. Formerly, even when it was the Southern General site, pigeons had been a problem, I think, as had-- across most of the hospitals in Glasgow had pigeon issues. I was particularly involved in--

Again, one of my remits within the project team had been to get the new helipads up and running. We had to establish a firefighting and security team, who ended up dealing with the helipads, and it was very early days that we had an issue with pigeons roosting on the helipads. So we had engaged with our pest control contractor to try numerous things of how to dislodge the pigeons from the helipads and other areas across the hospital campus.

Q So, you'd encountered it at that stage when you were part of the project team, which you finished in August 2015.

A Mm-hmm.

Q We've heard from another witness that in terms of instructing action about pigeons, getting the pest control people in or whatever phrase you want to use, that could be done by a variety of individuals within the Estates function or elsewhere if they spotted a problem. Is that the way it worked?

A The process for requesting a call-out from the pest control company was done through the FM help desk. So if, for example, a catering supervisor in one of the Regen kitchens discovered an issue with either silverfish or ants, whatever it was, they would phone the help desk and the help desk would make

the call direct to the pest control contractor.

So, there was very few people that would phone directly to the pest control company; that was normally done through the help desk. However, on occasion, myself, I would phone directly or possibly other members of Estates and Facilities would cover directly, but it was very few people that would do that call directly. It's normally done through the help desk.

Q Sure. Was there any system in place for someone to have an overview of what had been the issues and what were the issues on an ongoing basis?

A Well, the help desk would keep records of all the calls out to the pest control company, so, normally, they would say what the nature of the call-outs were, whether it had been anything to do with pigeons or whether it had been any other form of pests that had been found.

I mean, we had approximately 50 wards on the campus, with-- each one of them would have their own ward pantry. So, ward pantries sometimes got infections (sic) of ants and that sort of thing, so they would all be recorded through that one system. But whether we had any analysis done in terms of what the make-up of all the calls were, I don't remember us doing that.

Q I think the suggestion might be that if there had been a problem in a particular area in the past, yes, fine, the pest control people were called out, a record was made of it, but then there was no linking of that, was there, to something that happens months later or a year later?

A No, you're correct. There wasn't.

Q Thank you. Did you have any particular responsibilities to deal with pest control, and in particular pigeons? Let's leave ants out of it for the moment.

A Well, yes, as I say, the helipad was obviously-- Again, it was another critical system for the Queen Elizabeth to have this helipad in operation, so it was-- we set up weekly cleans. We did install pigeon-proofing within the helipad to try and minimise the impact of the pigeons.

Any proofing, as we called it, against the pigeons also had to be weighed up against animal rights because we did have some near neighbours of the hospital site that were very keen on what methods we used to try and control the pigeons, so we had that to deal with as well. So we had to-- sometimes in terms of the methods we used, we did have to be discreet in trying to eliminate them from the helipads and other areas across the site.

Q Now, I don't want individual names, but I'd just like to understand your

answer there about you had neighbours who had views about what you did about pigeons. Now, I don't want to know about Mrs Smith leaning out of a window saying, "What are you doing with the pigeon?" but can you tell what you're talking about there?

A Well, it was just that whatever methodology-- whereas netting or spiking was common proofing methods that was used across many of the buildings on the hospital campus to try and stop the pigeons from roosting, but sometimes if we installed it in certain areas then we would get emails or telephone calls. I didn't have any directly, but they usually went to our Estates team in terms of, you know, "Be careful." Just to say that, you know, these pigeons are creatures and we should be careful in terms of what you should be doing, so that was something that we were mindful of because there were more stringent methods that we could use in terms of pigeon control.

Q Thank you. Can I just come back to a question I asked you a minute or two ago? You told me about the helipad issue, but in your capacity as the Estates manager from January 2018, did you have any specific responsibility to be in charge of control of pigeons?

A Oh, yes, pest control responsibilities lay with Estates and Facilities, so my role as general manager

on the Queen Elizabeth campus then said yes, that remit sat with me to do something about it.

Q You said you went on a site visit with Mary Anne Kane, Colin Purdon, possibly Teresa Inkster, and am I right in thinking that when you went on a site visit to plant rooms, you found that there was evidence of pigeon droppings there?

A Yes, that's correct.

Q Was it possible for you to work out, either from that visit or otherwise, how long there'd been an issue with pigeon droppings in the plant rooms?

A I don't think from the droppings I could make out how long they'd been an issue, but given that there was points of ingress to the plant rooms from outside, which we had to deal with and getting those points of ingress closing up, then it would be apparent that this had been a problem for, you know, it wasn't just recent, yes.

Q Thank you. In your witness statement, you say that when you went on a visit, you think there may have been some cleaning done before you went there, and then you're asked at the top of page 420 about the comment, "Some cleaning may have been carried out." Can you just tell us what you discovered about cleaning before the site visit?

A Nothing. I didn't know anything about what had been done or

what hadn't been done before the site visit.

Q But did you not then discover that some cleaning had been done?

A Yes, I think it was my conversation with the pest control contractor following my return to work that day. I think I met the pest control contractor at that time and he told me that they'd been out over the weekend doing some cleaning.

Q Oh, right.

A Which is, you know, would be par for the course if there was an issue, which normally is addressed as soon as possible.

Q Yes, so can we just look at the top of page 420? What you say there is that:

> "On hearing that the IMT had suggested there was a link between pigeon infestation [presumably and the illnesses], Mary Anne Kane had instructed…"

I think that-- would that be Colin Purdon, probably?

A Oh, sorry, yes, it's----

Q Rather that Ian Powrie, but it's Colin Purdon.

A Yes.

Q "… to carry out deep cleaning in the affected areas."

A Yes.

Q Thank you. The risk that's caused by pigeon droppings, sometimes called a health and safety risk, is that a risk to health or is it a risk of physical injury, like slipping?

A Well, I think, for my perspective, up until 2018, it was a health and safety risk. Just as you described there, it's slipping. And also, from an aesthetic point of view, it looks dreadful as well.

Q You say further down page 420 that, when it comes to plant rooms, prior to you being alerted about this in 2019, you weren't aware of an issue in plant rooms. Logically, that's presumably because not many people go there.

A Yes. Yes, or the fact that if there had been an issue and it had been reported through the help desk, then I would necessarily have been made aware of it.

Q I mean, is it fair to say-- I mean, you told us just a moment two ago that it was clear that the issue with pigeons ingressing and causing mess wasn't a new one. That was your reaction, I think, when I asked you about it----

A For the hospital sites in general, certainly my understanding was that it was more external buildings. I was surprised to find the amount of pigeons that had actually accessed the building or

the plant rooms themselves. Normally, I was used to dealing with things that were happening outside.

Q Yes. I'm just trying to get a picture here. Could we look at bundle 24, volume 1, page 62? Is this the kind of record that's made when some action is taken?

A Yes.

Q We see here that this is a date in 2016, so you were not in post at that time----

A No.

Q -- but we see that the pest control action has been to remove a dead pigeon from the plant room----

A Yes.

Q -- which would support your argument, or your statement, that there have been issues for some considerable time.

A Well, as I say, I wasn't aware of it so much being internal. It was more external at the time, but yes. I mean, that would have been-- the action that would have been taken would be somebody has phoned the help desk, the help desk have called them out and the dead pigeon has been removed, so.

Q Can we look, please, at the same-- bundle 24, volume 1, page 83? This is a report from GP Environmental. They're, I think, the regular pest control firm that was used when you were at the Queen Elizabeth Hospital, is that correct?

A That's correct, yes.

Q And in fact, this is said that the works were requested by Mr David Brattey, and the date is March 2017, so this is, again, before you were back----

A Mm-hmm.

Q -- in your post, but we see there that the discussion is of deep clean and sanitisation of pigeon fouling, etc., etc. to plant rooms and walkways.

A Yes.

Q So, again, plant rooms seem to have been an issue in 2017.

A Yes, looks like it.

Q We see from report that there's discussion of heavy buildup of pigeon fouling on ledges, beams, walls, floors and walkways of the plant rooms. Were you aware of the existence of this report, for instance, when you came?

A No, I wasn't.

Q We might just move to page 101. So here we have another report. The date is June 2018, so this is after your arrival back. We see there's a calling out to remove a pigeon carcass from the plant room again-- located, etc. Were you aware that a dead pigeon had been removed from the plant room area?

A No, as I say, because the process would have been for the help desk to be informed, to be contacted, to ask the pest control company to come out

to address it. I wouldn't be made aware of all pest control reports.

Q Thank you. Can we then just look at 127? There's another environmental report that's headed-- or somebody's written on it, anyway:

"Deep clean and sanitisation of a particular area."

And there's a reference on the right-hand side, "Damage from pigeon fouling." Now----

A To pipe lagging.

Q Yes, to pipe lagging. Is this anything you were aware of?

A No, I can't say it was. No.

Q Thank you. I think, in your witness statement, you're quite complimentary about GP Environmental in terms of their turnout times. Is that fair?

A Yes. They were normally very responsive, yes.

Q So, can we look forward, then, to another document? Page 115, in the same bundle. So here we are; now there's something with your name on it----

A Yes.

Q 8 January. So what seems to have happened there is that you and Colin Purden have met with the individual from GP Environmental. Is that Mr Bryden?

A Allan Bryden, yes.

Q Yes, and what were you wanting him to do?

A Well, we wanted him to put together a programme of work to be able to clear-- clean every plant room within the hospital site and to take effect, as well as to clean-- to install proofing or block up any gaps in the buildings that pigeons may be able to access.

Q Because GP Environmental are talking about a significant health and safety issue. Did that surprise you?

A Yes. I haven't seen that in the reports before from them. I don't remember, so-- So, yes, it was a surprise for them to put that in, but I didn't query it any further. I didn't ask why they had added that to their report. I just assumed that because of the, you know-- ascetically, how bad it looked, about possible slips and trips/falls, but also the fact that there may have been a connection to the recent outbreaks in the wards.

Q You may not be able to tell me about this, but if someone in your position gets a report from an external contractor flagging up a significant health and safety issue, do you report that to anyone else?

A A lot of-- Well, what I reported back to the IMT that was taking place was that I had actioned-- that I had received the report from GP Environmental to expand action to a

period of, you know, a programme that works to get rid of the pigeon mess and to install proofing where required, so I don't know that I shared that particular report with anybody. I'll then report back to the IMT that we're taking actions to rectify the situation.

Q Because it's not just plant rooms they're talking about there. They're talking about many locations, and then they list examples: walkways, plant rooms, ledges and then various other parts of the building.

A Yes.

Q What you do say in your witness statement, if we go back to that at 421-- you say right at the foot of that page:

> "[You] could have had inspections of the plant rooms carried out which might have prevented the problem arising to such a level."

And you say there were about 30 plant rooms that would have had to have been inspected.

A Yes, I can't remember the number of plant rooms. There could be more than that, but there are significant numbers of them. But, with hindsight, yes.

Q So, once you'd instructed GP Environmental, were they visible for quite a period on site?

A Yes. They were on site daily for a period of weeks, if not months.

Q And were you involved in liaising with them over that period?

A Yes. I met with Allan Brydon, the director of operations, on a regular basis, sometimes with Colin Purdon, other times on my own, or sometimes, if I wasn't available, Colin would meet with Allan just to-- for him to give us an update in terms of what, you know-- what had been done and what was still to be done.

Q Now, I'm not going to necessarily dig them out, but do you understand that photographs had been taken of pigeon mess in a whole variety of locations?

A Yes.

Q Were you shown these at the time?

A Yes, yes.

Q Thank you. Well, I'm moving on from pigeons to one or two miscellaneous points, if I may. Can we go back, if you don't mind, to your time around the handover of the hospital? Because the project group that you were a member of overlapped handover in the sense that we know handover was in January 2015. The project group didn't end until August 2015. Patient migration was, depending on which part it was, in between these two dates.

A Yes.

Q I think you were asked in your questionnaire – you responded in the witness statement – about whether training to staff on all the new things they needed to know proved easy to organise and effective. Do you remember any particular difficulties with that?

A I think it was-- I think just freeing people up from their day job to be able to attend the training, and also about the level of training in terms of some pieces of equipment. I mean, for example, the automated guided vehicles, that was quite a complex system, and I would say, you know, even several months after handover, we were still learning-- the guys that were operating the system were still learning about it.

So, while some systems were quite simple and straightforward, the right people attended, other systems need a lot more in-depth training which-- I think, eventually, we ended up having to pay for more training on the systems than what we got-- than what would've been agreed within the contract. So, I'd say, yes, with some of the more complicated systems, we required more training than what was originally provided.

Q Thank you. So, would that have taken longer? I suppose the question I have in my mind is whether it should have started earlier.

A Starting early might not have been possible because, again, it was about freeing up our staff that were going to be operating the system to be able to attend, and also it's about the completion of the system installation, whether it was at the point of readiness to be able to provide training on it.

Q Thank you. We've had some evidence from other witnesses about pressure on staff at these early times. Do you remember anything about staff coming under pressure in terms of volume of work hours or anything like that?

A Yes. Well, within the management team, there was pressures in terms of just being able to provide cover for everything we were doing. We also had to use agencies, a lot of agency staff, initially for domestic, catering, portering posts to get the departments up and running before the other staff migrated over with the hospitals, so--

And then, of course, staff moving in from other hospitals, they had to get familiarisation, induction. They were coming in to-- they had their own anxieties about working in a new environment where they'd maybe left a place of work that they'd been based in for 20 years, so we had that sort of anxiety from our own staff as well. So, you were you were dealing with that and

then converging, you know, a number of large hospital sites onto the one site, just in terms of volumes of staff, was also quite challenging as well.

Q Did this have any impact on the number of hours that people were working at the time?

A Well, certainly-- probably from a domestic, catering and portering assistant job, maybe not so much, but I think when you got down to the supervisory level and from the management level, then there was a lot of seven-day working, 12-- 12-hour shifts on a regular basis that was being worked, so, yes.

Q Thank you. Right, let me just ask you one specific question, which is not connected directly to that at all: you were asked in your witness statement about whether concerns had been raised with you in-- it would have to be in 2018, possibly, unless it was when you were there as cover, about the quality of cleaning in some of the units of the hospital. Can I firstly ask you, can you remember questions being raised with you about the quality of cleaning?

A Yes. When I had not long moved over to the Queen Elizabeth in January-- well, maybe it would've been January, February of 2018, Susie Dodd and Dr Inkster asked to meet me to discuss the cleaning arrangements within the children's hospital, in particular around Ward 2A and 2B. They'd informed me that the previous-- they'd spoke to my predecessor about it before, but they still felt that there was issues around it, so we had discussions about it.

Certainly, I spoke to the domestic manager and we reacted to the issues they had raised and sorted them out, but I understand that Susie Dodd and Teresa Inkster still had anxieties, so we ended up sort of relooking at the domestic service model we were providing to 2A and 2B, and we enhanced the hours and we had closer supervision of the wards as well to try and alleviate the concerns they had about the cleaning within those wards.

Q Thank you. My Lord, this would probably be an appropriate time to take a break so that I can also take stock about any further questions.

THE CHAIR: Ms Connelly, as I said, we usually take a coffee break. Could I ask you to be back for what with us is quarter to twelve but probably, with you, is quarter to one?

A Yes, thank you.

THE CHAIR: Thank you.

(<u>Short break</u>)

THE CHAIR: Mr Connal.

Q I'm obliged, my Lord. Having

reviewed matters, I have no further questions for this witness. Thank you.

THE CHAIR: Do I understand you've taken the opportunity to check with the room as to whether there's any proposed questions?

Q That is correct.

THE CHAIR: All right. Ms Connelly, that is the end of your evidence. Thank you very much for your attendance and your patience with the technology. Before you go, could I just recognise that it's not just a question of giving the oral evidence; there is a lot of work involved in preparing to do that. Can I thank you very much for the work you did in helping with the preparation of your written statement? But we can now leave you to the rest of the day.

A Okay.

THE CHAIR: Thank you.

A Thank you.

(The witness withdrew)

THE CHAIR: Now, my understanding is that we are in a position to begin the next witness, albeit it will be Mr Mackintosh who will do that.

MR CONNAL: That is correct, my Lord. The next witness is present and is also content to start. Mr Mackintosh is primed and ready to ask the questions.

THE CHAIR: Right. Well, if that is suitable to everyone, we'll say goodbye to Mr Connal for today and allow Mr Mackintosh to take his seat. (After a pause) I think I can still say good morning, Ms Joannidis. As you understand, you're about to be asked questions by Mr Mackintosh----

THE WITNESS: Yes.

THE CHAIR: -- who's sitting opposite, but first, I understand you are prepared to take the oath?

THE WITNESS: Take the oath, yes.

Ms PAMELA JOANNIDIS
Sworn

THE CHAIR: As you've probably gathered already, we plan to sit until one o'clock. We'll take a lunch break then. I would anticipate we'll be asking you to return at two o'clock. However, if there's any stage in the evidence you want to take a break, just give me indication and we'll take a break. What I very often say to a witness is bear in mind this is quite a large space. You've got the help of the microphones, but maybe speaking a little louder, a little slower than usual conversation. Now, Mr Mackintosh.

(Questioned by Mr MACKINTOSH)

MR MACKINTOSH: Thank you, my Lord. Ms Joannidis, can I ask your full name, and I understand you're retired?

A Yes.

Q So what was your occupation-- What's your full name and what was your occupation before you retired?

A So my name is-- my full name is Pamela Anna Maria Joannidis.

Q What was your occupation before you retired?

A Before I retired, I was infection control nurse in NHS Greater Glasgow and Clyde, and before that in Yorkhill NHS Trust.

Q Thank you. Now, you produced a statement, I understand, for the Inquiry.

A Yes.

Q Are you prepared to adopt that as part of your evidence?

A Yes.

Q That, of course, means that we don't need to go through it line by line. We can read it, and his Lordship and I obviously read it, and the core participants have read it, too, so what I'm proposing to do is just pick out a few key issues that are covered in it.

What I first want to do is just to understand from you what the role of an infection control nurse is, perhaps in

contrast to a doctor working in the same field of Infection Control. So, what is the difference, in a sense, between the two?

A Usually, an infection control nurse is in-- works full time in that post and doesn't have any other duties, whereas the infection control doctor would usually be the consultant microbiologist and would have some sessions out of the week to do infection control doctor-type work. Infection control doctors would usually sit within the laboratory and would normally look at the-- would be the first person to see microbiology results. They would provide advice on antimicrobial prescribing, whereas the infection control nurse would not give advice, generally, on antimicrobial prescribing.

Q What particular things would an infection control nurse be giving advice on?

A So, essentially, standard infection control precautions as in the National Infection Control Manual, so chapter 1 and chapter 2 of the manual. So standard precautions would be hand hygiene, decontamination of equipment, decontamination of the environment, and we do education and support education for staff around that. They would be involved in audit of all of those precautions and would liaise generally with staff in clinical environments to

support the application of standard infection control precautions.

Q When it comes to the decision to acquire new equipment or, in extreme cases, build new facilities, would there be a difference in the way that infection control doctors and nurses will be involved in those sort of projects?

A Yes. The infection control nurse is not a subject-matter expert in water or ventilation and therefore wouldn't be invited to give advice and wouldn't be that person giving that advice, whereas the infection control nurse would be giving advice on the layout of a ward, particular processes around bed to dirty utility room or clean utility room, bed spacing and the general layout of a ward. They would also be expected to give advice about the number of hand hygiene sinks and the location of those sinks.

Q If an infection control nurse had a particular additional qualification in something like water or ventilation, presumably they would be able to give advice on that, but generally they wouldn't, is that what you're saying?

A If that was part of their job description and their contract to do that, then, yes, and they had that appropriate qualification, then, yes, but-- Yes, so----

Q From your perspective, as an infection control nurse, and a relatively senior one – we'll come to that– what's

the role of doctors, infection control doctors, in choosing new equipment or procuring new facilities, in contrast, or in the same----?

A So, I would expect that infection control doctors would be involved in the more technical aspects of the new build around water systems and ventilation, particularly for at-risk patients, so intensive care, neonatal intensive care, haemato-oncology units.

Q Thank you. Now, I think the next three questions-- next question is-- I think you've already answered half of them. I'll just go through them just to be clear. If you are in a situation where a decision has to be made about what water testing to do in a place – particularly when to do it, where to test and what to test for – would that decision be made by infection control doctors or infection control nurses?

A That would certainly be infection control doctors.

Q And that's because of their microbiological background?

A Yes.

Q Right. In terms of the water system in a hospital, I can see you've explained that a nurse wouldn't necessarily have the skills and the background and experience to take views on a water system, but as we get closer to the wash hand basin, do the infection

control nurses get more involved in the sort of ends of the system, a water system, and how it's cleaned and kept secure?

A What do you mean by "ends of the system"?

Q Well, for example, if you have a sink where there is a question about whether it's being kept properly clean or is it being used sufficiently often, would that be an issue that would concern an infection control nurse, or is it entirely a matter for infection control doctors?

A So, in terms of the cleaning of a sink, there are national cleaning standards and that would be Domestic Services. Infection control nurses might look at the use of that sink and their designated hand hygiene sink. So what you might find is that a sink is actually being used for other purposes as well, like pouring liquids down it, that kind of thing. So infection control nurses would make sure that that was the case.

In terms of the technical side of that sink, any microbiological sampling would be the infection control doctor who would do that. In terms of the technical aspects of what is behind the IPS panel, that would be Facilities and Estates working in collaboration with the Infection Control team.

Q Yes, because the example I'm thinking of, we've heard evidence

yesterday of a particular time when it was necessary to inspect a ward before patients were moved into it, and this inspection was carried out by an infection control nurse. It involved finding out all the problems with the showers and the water system. I'm just trying to see how hard this boundary is about whether infection control nurses get involved in water systems.

A So the infection control nurse would have a visual look. That's as much as they can do, and they can't see, obviously, and they don't know the technical aspects of what's behind the wall, the panel that the sink and the tap are attached to, so it would a visual inspection.

They would also liaise with the clinical team at ward level and, as you say, ask them if there had been any problems, and that would be an opportunity for the clinical team to highlight any concerns about if the water was running slow and, on occasions, if-- they might tell the infection control nurse, "Well, actually, we don't use that sink," so that then becomes what's described as a little-used outlet.

Q Right.

A And that would then be-- the infection control nurse could give that information to the Estates and Facilities Department to say that there's an option

there: number one, you make sure it's flushed anyway, even though it's not used, or you remove that sink.

Q Thank you. Now, I'd like to move to the period before the Queen Elizabeth University Hospital opened, and if we can just start with your professional history. So I wonder if page 429 of the statement bundle can put on the screen in front of you so we can see. I just want to-- 429, please. You provided a compact CV in that section, and I'm just going to put some things I understand from this and I want you to stop me if I've got it wrong, effectively, that in the period between 2007 and 2013, you were a lead Infection Prevention Control nurse in the South Sector.

A Yes.

Q Yes, and that included a range of different hospitals, which you've listed there. Then, from January '13 to March '19, you are promoted to be a nurse consultant.

A Yes.

Q Yes, but whilst you're a nurse consultant, you go and set up the new paediatric Infection Prevention Control team in the Royal Hospital for Children.

A Yes.

Q In the new building.

A Yes.

Q And you did that part time while still being a nurse consultant.

A Yes.

Q Yes, and just to connect this to other evidence, that role is taken over by Susan Dodd in March 2017.

A Yes.

Q And you return to being a full-time nurse consultant?

A Yes.

Q Right. Then you become acting Associate Director of Nursing from March 2019 and then, in March 2022, you retire.

A Yes, I retire from GGC.

Q Excellent. Now, the reason I wanted to check that is because the first period I want to look to you is whilst you're in that South Sector job, so that's before January 2013. Now, in your statement on page 433, you discuss at the bottom half of the page a meeting, which you haven't given a date for.

A Yes.

Q Now, of course, you're retired, so I assume you haven't got access to all your work emails, so what I'm trying to do is to try and make sure we're talking about the same thing at this point.

A Yes.

Q So I wonder if you could look at bundle 14, volume 1, page 11. Now, this appears to me to be an email that ultimately has been forwarded on to Dr Inkster at the top, but two-thirds of the way down the page is an email from

Heather Griffin to Alan Seaborne, Peter Moir and Brian Cowan. It doesn't copy you in, but it describes that:

> "A meeting took place with Tom Walsh, Annette Rankin and Pamela Joannidis to review and finalise the Infection Control advice to the isolation rooms in the New South Glasgow Hospital."

And then it describes what almost looks like cut and paste from a minute.

A Yes.

Q Do you think this might be around the time of these meetings you're talking about at this point in your statement?

A Yes, I think it must be around about that time. I think in my statement I said "my memory" of that time and I think I was talking about that, but might have got people who were at that meeting wrong, but yes.

Q In fact, we can see a minute of the meeting that I've found this morning at bundle 23, page 46, and we might look at that instead because then at least we're looking at the meeting itself. Yes. So this appears to be a minute on the 18 May 2009 at one o'clock, and you're recorded as one of the seven people present.

A Yes.

Q Now, in the text of the

document there's a-- the group reviewed the paper from doctors Redding and Hood and Annette Rankin. We don't have the paper, but I want to look at the minute with this.

A Okay.

Q This sits in the timeline of the procurement of the hospital at a point before the competitive dialogue between the three final tenderers, which commenced in June 2009. So what I'd like to understand is what you thought the purpose of this meeting was in the procurement. Have you a recollection of why you were meeting?

A My understanding of this meeting was that the project team wanted to know what isolation-- So we already knew that the hospital was to be a 100 per cent single room.

Q Right.

A But within that, the project team were looking for advice on how many mechanically ventilated rooms might be required.

Q Because, at that time, had – as far as you know, and as far as you remember – there been a decision about whether the hospital was to be entirely mechanically ventilated, or partly mechanically and partly naturally ventilated?

A I don't know.

Q The reason I ask that is

because of the way you phrased that last answer. You talked about, "How many mechanically ventilated rooms would there be?" Well, if it's all sealed windows, they're all mechanically ventilated, and I wonder if that would've been something that would have been discussed around about this time.

A Sorry, no, by that I meant special ventilation----

Q Special ventilation, okay.

A -- as opposed to----

Q Now, in this minute, it records----

THE CHAIR: I mean, I think you've been entirely clear about this. You accept that your understanding would be that all spaces in the hospital would have some mechanical---

A Yes.

THE CHAIR: -- ventilation, in other words, achieving certain specifications.

A Yes.

THE CHAIR: But what you're being asked about was spaces or rooms which would require enhanced----

A Yes.

THE CHAIR: -- I mean, higher specifications. Right, thank you.

Q And then, within this minute, two-thirds the way down the page, it has a heading "Haemato-oncology." Now, am I right in thinking that, by this point, the decision to move the adult bone marrow

transplant unit in hasn't been made? So this must be what is ultimately Ward 2A?

A Yes.

Q Yes, right. Now, do you remember this being a one-off meeting or there being other meetings?

A So my memory in my statement was a meeting with different people, including Alan Seaborne.

Q Yes, that's what I'm wondering.

A I don't-- I can't honestly say.

Q I mean, how vivid is your memory of a meeting with Mr Seaborne? That's what I'm trying to think.

A I just know we met.

Q Right, well, we'll----

A I'm sure we met with Dr Hague, infectious diseases consultant, but I can't remember the details sorry.

Q No, that's fine. So what I want to do is now put this in context. So this is a meeting about the specialist ventilation facilities for these specialist rooms. At this point, had there been any discussion that you can remember about the general ventilation for the hospital as a whole?

A I don't remember any discussion. I just remember conversations that the appropriate SHTMs were being followed in terms of all systems for the hospital, and I think I got that from Jackie Barmanroy who was the nurse consultant.

Q Around about then?

A Not then. Jackie wasn't employed then.

Q So that would have been later?

A It would have been later.

Q Right, okay. But at this point, what you're being asked is about the specialist facilities?

A Yes.

Q Right.

A And that was about numbers, numbers of specially enhanced ventilation rooms.

Q Yes, and I wanted to check the answer that's recorded: "Sealed ward with HEPA filtration positive to the rest of the hospital." In practical terms, does that mean there would be a lobby on the entrance to the ward?

A Yes. Our understanding of that was that that was the description of the existing Schiehallion units at Yorkhill.

Q I think we've heard evidence about that.

A And there is an airlock. I don't know what the technical term would be, but it's an airlock with two doors, and there's a system of going into one, waiting, and then going into the next to get into the ward.

Q Thank you. Now, what I want to do is to go back to your statement, which is to page 432 of your statement, the same bundle. You describe, in answer to 7(a) at the bottom, that Annette

Rankin, who was then your line manager:

> "… invited [you] to attend some preliminary 1 in 200 planning meetings with a number of adult clinical teams…"

If you go over the page-- Would these be meetings where one to 1 to 1,200 architectural drawings are being looked at?

A 1 to 200, yes.

Q Yes, and----

THE CHAIR: Sorry, my fault, Mr Mackintosh: are we still on 433?

Q Yes. Well, we're now on 432, but yes, 433, yes.

THE CHAIR: Right, thank you.

Q So if we go to 433, and these are preliminary drawings. Now, this is when Jackie Barmanroy was there, so we'll obviously have to check her dates with her, but would this have been at a point when there was a single bidder, no bidder or three bidders, as far as you remember?

A I couldn't tell.

Q The reason I ask this is we're aware that in June, July and August of 2009, there's a process where, in what's called a competitive dialogue, there are a series of programmed and structured meetings at which different people from the Health Board meet differently or from the bidder and discuss different aspects

of the hospital, and one of those sessions looks at 1 to 200 drawings, and that's in 2009. And then there's other evidence that there's a 1 to 200 drawing session that happens later, after 2009. I'm trying to work out which one you're talking about. Can you help me about whether it was in 2009 or later?

A So, it would be certainly before Jackie was employed as the full-time nurse consultant, and I think it probably was round about that time, but I'm sorry, I don't have access to records.

Q Okay, fair enough. Could I ask you to go to bundle 14, volume 1, page 32, which is an email, jumping forward in time, from 2013? Now, this obviously is the best part of four years later, and the hospital is now being constructed or construction is under way, and what I need to do before we go too far into this is to look at who everyone is, for the purposes of the hearing. So, at this point, you'd now been promoted to Nurse Consultant?

A Nurse Consultant.

Q Yes, and who was Mr Walsh?

A Tom Walsh was the Infection Control Manager.

Q And who, then, was Sandra McNamee?

A She was the Associate Nurse Director for the Infection Control Service.

Q We see her later in papers as Sandra Devine.

A Sandra Devine.

Q Yes, and Craig Williams, what role did he then play?

A Craig Williams was the lead infection control doctor, and the infection control doctor for the paediatric service.

Q And then Jackie Stewart, what role did she play?

A So Jackie was in my team as a senior infection control nurse. She had been for many years, and she was offered the post of nurse consultant. She applied for the post and was successful.

Q But she'd been working for you for a long time?

A She had been working with me for the length of time that I-- I think for the length of time that I was in the South Sector.

Q I see. Right.

A I think.

Q Now, there's a discussion here of a meeting, now, that you've sent a report to various people, the people here, and you discuss what various rooms are to have, and I notice-- you'll see the fourth paragraph goes:

> "We discuss mechanically ventilated isolation rooms. The NCH..."

We're presuming is National Children's Hospital?

A Yes.

Q "...will have 24 lobbied en suite rooms, six in PICU, two in the observation ward, three in haemato-oncology, and the rest scattered throughout the building in clusters of two."

Now, the question I wanted to ask you is, this appears to be different from what is recorded in the 2009 minute, where it's described that the whole of the haemato-oncology ward will be positive pressure to the whole of the hospital with HEPA filters. Can you explain why that change has happened?

A So, by this, I meant BMT rooms, six BMT rooms, but it doesn't mean the ward wasn't still going to be a sealed unit. At that point, I still understood it to be a sealed----

Q So, in 2013, you (inaudible) sealed unit?

A That was my understanding.

Q Right, and----

THE CHAIR: Sorry, just so that I'm keeping up: notwithstanding the precise terms of the email, which is an email – not a convincing document – your understanding was that the plan for what became Ward 2A was a lobby to the rest of the hospital----

A Yes.

THE CHAIR: -- in addition to at least some of the rooms being lobbied?

A Yes.

THE CHAIR: Right. I think you said that quite clearly. It's just-- I need to be sure that I'm keeping up. Sorry, Mr Mackintosh.

Q Not at all. (To the witness) And then, if we can move on to page 42, which is an email sent to you on 3 July '14. Again, of course, this is a long time ago, and you've only seen it a few days ago when we gave you notice. We have, again, the number of isolation rooms, and I'd like to understand what this table might mean, if you can help me.

So, the top row of the table appears to say, "NCH Observation Ward 2," and we had that in the previous email a year before, and PICU 4, that's still the case. But now we have two in cardiology, two in ARU and six in general wards, rather than scattered around the hospital, which we had before. Do you want to look at the previous page?

A No, carry on.

Q Yes, so the question I want to ask is, firstly, there are now eight recorded at Schiehallion, whereas, previously there were six recorded. Can you explain what's going on there? Has there been a change that you're aware of or----

A So I wasn't aware-- I can see the number has changed, but I wasn't

involved in conversations. You would-- I would have assumed that that was a negotiation with the clinical team around what they felt was the business case for the number of rooms.

Q I see, and then at the bottom of the table, it has "NSGH." That, presumably, is the adult hospital?

A Sorry, yes.

Q And it has 10 in critical care, two in renal hynoacuity (sic). Now, I appreciate that you might not have been involved in this, and then it has:

> "24 in haemato-oncology. HEPA filtration not lobbied."

Now, are you able to help me about what ward that is ultimately talking about?

A My understanding there-- that was the proposal for Ward 4B----

Q 4B, so, there's a----

A -- which became the adult----

Q So, at this point, in this email, there is a suggestion that there would be HEPA filters in 4B?

A Yes.

Q But no lobby?

A Yes.

Q And, ultimately, 4B acquires HEPA filters and a lobby, but it takes a bit longer?

A Yes.

Q Right. Now, what I want to ask is-- I asked you about 2013, what was your understanding about the Schiehallion unit and whether it would have a lobby and be HEPA filtered. Was that still your understanding in 2014 in July?

A Yes.

Q When did you realise that it wasn't going to be HEPA filtered and positive pressure to the rest of the hospital?

A I became the acting lead infection control nurse for the service around October 2015, and I asked the team to take me round and walk me round the unit and, at that point, I realised I wasn't going into an airlock before I went into the Schiehallion ward, and that's when I realised it wasn't airlocked.

Q So it's October of 2015?

A (Inaudible).

Q Now, you mentioned a little bit ago in my questions that you had been assured back in 2009 that the relevant SHTMs would be followed, and that was the words used. When did you realise that the air change rate in 2A was somewhat lower than it might have been required to be, to some people's eyes, in SHTM 03-01?

A It was some time after I became the lead nurse for the service, but I can't remember if that was when Dr Inkster took over and we started to look at-- or whether it was when I started,

they were already looking at the seals round----

Q Well, we'll come back to those. We're going to look at those documents, but let's----

A Yes, so I can't quite remember.

Q Now, you have explained to me that you don't consider that infection control nurses – I'm assuming this includes you – are the right people to ask what the requirements are of SHTM 03-01 in terms of ventilation. Have I got that right?

A Absolutely.

Q However, numbers get banded around. I'm not so much interested in whether you think they're right but what you were told. So if we go back to 2009, at that point, was there any discussion of what the air change rate would be in the haemato-oncology unit that was planned in this children's hospital?

A I don't recall the conversation, don't 'recall.

Q When's the first time-- Sorry, you don't recall that being discussed?

A I don't recall.

Q When's the first time that someone said to you a number for air change rate in Ward 2A?

A I think it might have been when I took over as lead.

Q And that would have been October '17?

A Of 2015.

Q Or, given that you said the time might have been when Dr Inkster arrived, one of those two times?

A I think it was about then.

Q Yes.

A So, that's-- yes.

THE CHAIR: Sorry, I didn't get----

A Sorry.

THE CHAIR: I have to say, I'm hard of hearing, Ms Joannidis. I just didn't get that date.

A I think it was around about October '15, or it might have been when Dr Inkster started a little bit further down the line.

THE CHAIR: All right.

Q But it's certainly not before October '15?

A I don't think so, no.

Q No. Now, what I want to do is look at your answer to question 14A, which is on page 435 of your statement. Now, the reason I wanted to look at this is your first reaction to the hospital. Is it coming up-- it is coming on the screens. Right, yes, so you've recorded there that your first reaction was:

> "… very big and the footfall was enormous. It looked new, clean and modern."

Now, given that you've described going into the Schiehallion unit in October

of that year and going, "Where's the lobby?" effectively, what was the point when-- or was there a point when the impression you're giving out there doesn't quite connect to what you've seen? Is there a point of when you've got a clean, modern hospital, but there's no lobby? How are you reacting to that?

A I was surprised. My first reaction-- I didn't go straight to Schiehallion when I first started, but when I did go into the ward, I realised there was no lock, and I did ask. I did say, "Why is there no lock?" I don't remember the response from Professor Williams, but I did ask why it wasn't airlocked because our understanding throughout the whole process was that Schiehallion would be like for like: what it was in Yorkhill was what we would get in the new hospital.

Q So could it be that this moment when you first went in is actually a few days or weeks before October '17?

A Yes, it will have been.

Q Right. Could it have been before patients started arriving in the building in April?

A No.

Q No?

A No.

Q Right. Now, I've got a series of emails to show to you in a moment that suggest that you were involved in a series of meetings or conversations with

Professor Williams, Dr Inkster, Sandra Devine and others in May '15 about the isolation rooms in Ward 2A. Does that ring a bell with you? (After a pause) Well, let's look at them and see----

A Yes, let's look and I can----

Q Can we look at bundle 14, volume 1, page 200, please? Now, this appears to be halfway down the page. At the bottom of the page is an email from Professor Williams to Jennifer Armstrong – who was then, I think, medical director – copied to Sandra Devine and Mr Walsh, but it's ultimately forwarded on to you and Claire Mitchell on 5 June 2015. So this is before you've been in the building, I'm assuming-- have been in the ward?

A Yes.

Q They're describing various issues that they noticed, and the third paragraph is:

> "Upon investigating, Mary Anne Kane [I think it is] found that the HEPA filters had not been fitted. If this is the case, we will be unable to validate the rooms."

And then there's a discussion that it would be potentially unsafe to move people in. Now, what I wanted to understand is, to how much were you aware there were some issues-- they're quite specific, but some issues with ventilation in the new-- or fit-out of the

new ward before you arrived in October 2015?

A So I was included in this because, at that point, Claire Mitchell had given in-- given-- she was resigning. She was moving on to NHS Lanarkshire, I think, so, at that point, I had already been asked if I could step in. We had an adult and paediatric team, and the decision had been taken that that team would be split into two, and I was asked to form a paediatric team at that point. So I started to be included in conversations – anything to do with the ward – because I would ultimately be stepping into Claire's role.

Q So these emails, and there are others, would appear to all take the form of Sandra Divine sending it on-- forwarding it on to you after she's received it?

A Yes.

Q And that's to keep you informed?

A To keep me up to date so that I would be aware of what was going on.

Q Well, we won't need to go to all of them, then, but perhaps if we could go to an email on 3 July 2015, which is on page 278, and this is about the sealing of the light fittings. So what I want to do just-- It occurs to me that you've said that your first visit to the ward was in October '15. Could it be it was a bit earlier, given this email is sent to you and Mr Walsh in July '15, and it's about sealing of light fittings in Rooms 17 and 18?

A It might have been. Theresa and I did visit the ward. I don't remember at what point-- but whether it was when she started or before that, but Theresa had moved over to the Southern as regional ICD-- regional services ICD, I think, and it might well have been that we went to the ward before I actually took over.

Q Because the reason that it's-- A few things interesting about this email sequence is, firstly, you've sent an email at the bottom to Dr Inkster on 3 July and you're providing her with information about the eight rooms and that sampling has taken place, and what's intriguing to me is that you've not mentioned the lobby, and so it occurs to me there are couple of different explanations that we could run with here. One is that you've not met the lobby yet because you've not actually been there. The other is that you didn't think it was necessary to mention that there was no lobby in exchange about testing for the ward, or there's another explanation. I'm trying to work out what you think might be going on here.

A I think I might have been wrong about the date that I first----

Q Right.

A -- was in the ward.

Q Could it have been that you would have visited the ward after getting into these email exchanges?

A So this might have been July because that last email there from me to Teresa-- it looks as if I've actually been in the ward, doesn't it?

Q Yes.

A And I talk about Magnehelics, gauges, etc. So, unless I got that information from the Infection Control team, that might have been me doing that.

Q So what I'm just trying to understand-- and I appreciate that you don't have access to a whole sequence of emails and you are retired, you haven't got access to all this information, but if it was appropriate – and it seems to have made sense – to raise the question of the absence of ceiling of light fittings in BMT isolation rooms, why would it not then have been appropriate around that time to have raised the issue in a similar way about the absence of a lobby for the whole ward?

A The first time I stepped into the ward was when I realised it wasn't-- it didn't have the lobby at the front door, and that's when I raised that question. It's not included in this email, but I did raise it just after.

Q Right. Do you recollect what the answer was? That seems to be the problem for us.

A I think-- I can't remember the answer. I don't think I was given an explanation.

Q Right, okay.

A I think people didn't know why they didn't have the lobby because that was the expectation.

Q Now, what I wanted to do is to go to page 280. So this email thread is-- ultimately reaches you. Well, it doesn't. It starts at the bottom, and so it's rather difficult to read because, at the very top, we have an email to Professor Williams from Dr Inkster copied in to you, where she says in the first sentence, "I've still not seen copies of the original specification for the unit." So, would that seem to confirm your idea that you didn't know why there wasn't a lobby?

A (After a pause) I'm sorry. I don't-- Ask the question again.

Q So, you've asked-- you've noticed there's no lobby.

A Yes.

Q You've explained that you've raised the matter with Professor Williams. Here are exchanges in July of that year about the original specification for the unit, and it seems possible that some people don't know what the original specification of the unit is at this point. The specification would, presumably,

include the presence or absence of a lobby.

A Yes.

Q It might include other things, too, but are we to take it that, at this point in 2015, you and, presumably, Dr Inkster didn't know what the whole specification for the Schiehallion unit was?

A That's correct.

Q Now, when it comes to the question of positive pressure ventilated lobby rooms, were you involved in collecting information together about whether they were fit for purpose in the summer of 2015?

A Well, I do remember prior to that a visit to Great Ormond Street, but I don't know if it was in connection to this because they had PPVL rooms in Great Ormond Street and I went with the delegation. I can't remember the date.

Q Because there's some suggestion in guidance, albeit you explain that guidance isn't part of your responsibilities, that positive pressure ventilation lobby rooms aren't suitable for haemato-oncology patients. Is that something you've heard of before?

A So I've read that, that those rooms might not be appropriate because of difficulties with the technical spec. When I was ICN in Schiehallion, we were particularly keen that the solution for a new hospital, or an upgrade to the existing, would be that we could protect immunocompromised children in a room, but at the same time, if they had an airborne infection, we would be able to maintain that child in that room and have that both protective and-- protective and make sure that the infection didn't seep out into the rest of the ward.

Q So this is a combination that you want to both protect the child and protect the ward.

A And protect the ward.

Q And that addresses the problem that a normal positive pressure ward room or a normal negative pressure room will be unsuitable for one of those two things.

A Yes, and the original ward in Yorkhill-- If a Schiehallion child had an infection that was spread, like chickenpox, by airborne, they would have to be moved to what was then the Infectious Diseases Ward. That was always-- that was not necessarily always great in terms of disruption to the family, taking them away from the facilities that Schiehallion had for parents, and also the medical staff having to go between different wards.

Q So the idea behind using positive pressure ventilators, is that designed to solve that problem?

A Well, that was my understanding, that that could be a

solution to that problem.

THE CHAIR: I'm not quite sure if I'm----

Q Yes.

THE CHAIR: -- following this, Mr Mackintosh. If we go back to the first proposition that you put to Ms----

Q So whether you were asked----

THE CHAIR: -- Joannidis. I wasn't as clear precisely what it was and where it came from. If I recollect correctly, what I have in mind is that you put the proposition that a positively pressured room may not have been the correct solution for a haemato-oncology patient and that, as a proposition, surprised me, but maybe I didn't quite----

Q So that was the proposition I was putting, but I'm conscious that this isn't the witness who has the expertise to answer it and she's responded, I think, by explaining her understanding of why other people thought that a positive pressure ventilated lobby room might be a helpful thing in the Schiehallion unit.

THE CHAIR: Right. I----

Q So what I was going to do is I was going to leave that here and pick it up with someone who has the technical knowledge----

THE CHAIR: Right.

Q -- to answer the why.

THE CHAIR: Because, fair enough, if one feeds in the proposition that the room has a PPLV – in other words, a lobby to the rest of the ward – I can see that that may be a solution both to protect the patient and (inaudible).

Q It may be, and I think the problem is that there's some discussion at a technical level about this, but I don't think you're the person to ask the question.

THE CHAIR: Right.

Q However, it's helpful to have the understanding of what the explanation was at the time. (To the witness) The final thing, to finish this, is when this is-- when this ward is opening, how much understanding do you and the people operating the ward have of what sort of room this is and whether it's validated and good to go to be used?

A So I wasn't involved. It was the local Infection Control team, and that would be Claire Mitchell and Professor Williams as the lead ICD-- ICN and lead ICD.

Q So you hadn't yet taken over?

A No.

Q Right. That explains.

THE CHAIR: Sorry to interrupt again, Mr Mackintosh. You used the word "validated," which I think we also see being used by Professor Williams in one of the earlier emails. At that time, I didn't ask, because it's Professor Williams who is using the expression. Now you're

using the expression. What do you mean by "validated"?

Q I'm just interested to see whether the word, "These are the validations" has been said to this witness, and since I'm not too worried about what it meant at the time----

THE CHAIR: Right, okay.

Q -- (To the witness) I'm interested to see whether you are able to tell me that you'd been told it had been validated, but since you weren't involved, you can't tell me that, so I'll have to ask someone else.

A Yes. So, I think-- I think there was. I joined an operational group who were discussing, I think on the move, when to send patients across and what patients, etc, from Yorkhill and when, and I was asked a question by Lynne Robertson, who was the service manager for paediatrics at that time: "Would there have to be a period of [I don't know if "validations" is the right word] for the ventilation systems in the hospital before we move in?" And I asked the Infection Control senior management team that question, and I was asked to refer to the project team, Francis McElrath, about that. So that's my involvement in that.

Q I see. What I want to do is just to-- I mean, this document may not be relevant, so I'm just going to double check that I'm looking-- that it's still relevant to raise with you. Yes, so if we go to page 296 in this bundle, please. So this appears to be an email. If you just look at the bottom half of the page, it might be easier. It appears the original email is from Professor Williams to a group of people of which you are one, and it says:

> “Note from the meeting about paediatric BMT held last night. I've discussed our actions with Pamela and she will take them forward.”

So you're being asked to do something, and on the next page in our bundle is a document headed, "Update for meeting to discuss [if you go to the next page, please] Paediatric BMT." Now, given the way documents get handled, sometimes they get disconnected. Do you think this is the note of the meeting that is discussed in that email from 8 September?

A I honestly couldn't say if that was actually----

Q Because the reason that I'm asking it is----

A It's a lot of technical----

Q Well, yes, but it is suggested that your-- Professor Williams has discussed his actions with you, and one would imagine, somehow, they arise out of this document. I mean, we don't know what he said. I mean, was it usual to

receive very short emails from Professor Williams at this point? Or any emails at all?

A It wasn't unusual.

Q Wasn't unusual. Did he send a lot of emails?

A Yes.

Q Yes?

A Yes, I think so. I don't know what you mean by "a lot."

Q Well, I suppose that's the question, is that sometimes it's been suggested some of the people involved in this-- these events were more keen on emails than others. So, when you arrived in this team, effectively, as it's being set up, did anyone give you any instruction that one shouldn't put things in emails or should just talk to each other?

A I don't recall being asked to do that. I think email-- because of the size of GGC and the five sectors across a really large geographical area, emails were really important.

Q What I want to do is just scroll to the bottom of the next page, and I don't think this should be taken out of context, what's seen here, because at this point they're still doing work to these rooms and ceiling light fittings and decisions are made to start transplants quite soon afterwards. But what I'm keen, again, to explore, and I suspect I may come against your memory at this point, but there's a discussion here of the risk assessment:

> "It was agreed that the risk to patients was higher if transplants were further delayed than proceeding in fully sealed rooms."

So they've obviously carried out some form of risk assessment about using these rooms. Does that ring a bell as a decision problem that had to be addressed?

A I don't remember that, I'm sorry.

Q The reason I'm asking is because-- are you aware what HAI SCRIBE is?

A Yes.

Q Had you seen or heard of an HAI SCRIBE being done for the finishing of the new hospital?

A No.

Q Had you seen one being done for this process of making changes and finalising Ward 2A?

A I think, when I took over, we appointed a senior ICN, and there was work to be done around the seals round the doors.

Q Yes.

A And my senior ICN put a SCRIBE together with Estates around the nature of the work that was to be done, so that would be considering the

disruption to the ward, seals, etc.

Q So there would have been-- There was HAI SCRIBE for relatively small-scale work in the ward?

A Small-scale work, yes.

Q But you've not seen an HAI SCRIBE that says, "This ward is now finished. It meets the standards. It's been risk assessed"?

A No.

Q No. If we can go back to your statement at page 456, at 25B. I think you've already answered this, but I'm just going to just see if we have a final go. 25B, you say the team was:

> "... informed that the air change rate in the bedrooms was 3 ACH and not 6. We were told this was due to there being chilled beam technology [and] did not require 6 ACH. I think Dr Inkstone may have told us, but I cannot be certain. I had no prior knowledge of chilled beam technology."

Now, it occurs to me there's a way I could ask this question that might jog your memory: you'd never come across chilled beams before in a hospital?

A No.

Q In fact, you didn't know what a chilled beam was.

A I didn't know what they were.

Q So you go into the Schiehallion

unit, and you go into these rooms. Had Yorkhill had single rooms?

A Yes.

Q Yes. You look up on the ceiling. Did you see the ventilation system and notice it on your first visits to the ward?

A No.

Q Because you seem to be involved in discussions around light fittings being sealed.

A Yes.

Q Could it be that you would have noticed the chilled beams relatively promptly on arrival?

A I think it would be fair to say that we knew there was this flat box on roof, on the ceiling, but not that it was causing problems. It was when Teresa and I were made aware that there was drips coming from the chilled beam that we went back and looked at these, and that's when we realised we didn't know what they were for. So, yes.

Q Is it possible this helps you to tell us whether the awareness of the air change rate is connected to that point when you start looking at chilled beams or not?

A It was Dr Inkster who told me that it was three air changes, not six. I don't remember when that was.

Q Well, we'll ask her. What I want to do now is to look at the same

page down the bottom of 24D. Now, one of the things I want to understand is these gauges that you get outside doors. Now, I've had the advantage of going to the hospital and seeing rooms with such gauges fitted, and I've seen rooms without such gauges fitted and it seems, would you agree, that it's obvious to notice whether there is one or isn't one?

A Yes.

Q Yes.

A Well----

Q Or is it?

A So, if the gauge is right outside the door, you might notice it more. If it was a little bit further down the corridor from the door, you might not automatically think that applies to that room.

Q So the question I wanted to ask is how would you know, how would you check, the pressure differential between a room and the corridor if there was no gauge?

A I don't think you could. I, again, don't have the expertise. I----

Q No, no. We'll ask----

A I don't think you could.

Q As a user, you don't think you could?

A I don't think you could.

Q Given that, in 2009, the proposal for the ward was positive pressure to the rest of the hospital, would you require a gauge to tell you whether you were at positive pressure to the rest of the hospital somewhere in and around the entrance to the ward?

A The old Schiehallion didn't have a gauge that I'm aware of. It might have done and I just didn't know that. But, with the new hospital, everything was a little bit more-- so there might have been an alarm.

Q Mm-hmm.

A Perhaps.

Q Did you notice the presence or absence of gauges around the entrance to the ward?

A No.

Q No. When you were in the ward the first few times-- We obviously know there were the eight isolation rooms in the ward. Did they have gauges outside the doors?

A Yes.

Q What about the other rooms in the ward, did they have gauges?

A I don't remember them having gauges, sorry.

Q Now, if we could go on to page 442 of your statement. It's going backwards, but there's a systematic reason. It's about the adult bone marrow transplant unit. You've described – and I'm not going to go through it in a huge amount of detail – how you were aware that the adult bone marrow transplant

unit, in effect, didn't arrive in the hospital. They, as it were, went back to the Beatson.

A Retro-fitted, yes.

Q Yes, and the work was done over the next year or so. What I wanted to understand is were you, at the time of your arrival in the Schiehallion unit, aware of what was going on in respect to the adult bone marrow transplant unit across from the adult hospital?

A I must have been, yes.

Q Because the thing I'd like to understand, and maybe you can help me, is, given that ultimately the Schiehallion unit stayed but the adult unit went back, are you aware of why there was a difference in solution?

A Do you mean why the----

Q Why the adult went back and the Schiehallion stayed.

A -- paediatrics didn't go back to Yorkhill?

Q Yes, yes.

A I would imagine that's a clinical decision because the Paediatric Intensive Care unit and the paediatric theatres had moved.

Q So the whole of Yorkhill had moved?

A The whole of Yorkhill, but I'm-- I wasn't party to those discussions, so----

Q Do you remember anyone explaining it to you at the time?

A No.

Q No. Okay. I'm now going to start what will, unfortunately, be a part of this afternoon just looking at IMT minutes.

A Yes.

Q So if we could start on bundle 1, document 1, because in your statement on question 21, you describe a IMT setup in respect of Serratia-- Can you help me pronounce this? I've never learnt to pronounce this one.

A Serratia marcescens?

Q Serratia marcescens, yes.

A Perfect.

Q So it's been set up in respect of Serratia marcescens, and I want to before lunch just ask you some general questions about IMTs, and we'll come back to specific ones. So what's the purpose of an IMT?

A The purpose of an IMT is to bring relevant people together to discuss a situation where you either have a single organism of interest, such as Ebola, or you have two or more cases that are the same that constitutes an outbreak and you would have that-- or you have a trend, where you have more cases than you would expect it of a particular organism.

Q So, if we look at those three categories. If we take a sort of slightly less dramatic organism than Ebola, could you have a IMT for a single, unusual

microorganism?

A Yes.

Q You could, and do you have to have one if there's more than two cases? Is that a rule or a piece of practice?

A It's part of the guidance of the National Manual that you would-- you would certainly have-- You might not go to an IMT, but you'd certainly have a Problem Assessment Group.

Q And that's a PAG?

A And that's a PAG.

Q Right, but with the trend, would that be a new IMT, because you've got a trend your unit, or the extension of an existing one that's already looking at more than two cases?

A Where you have an IMT looking at two or more cases, you would-- you would want to do a look back for other cases, so it might include looking at the data to see if there was, indeed, an exceedance.

Q An exceedance of what?

A Exceedance of that particular organism over time.

Q If you're dealing with an organism that's remarkably rare, even in haemato-oncology patients, how do you know what is an exceedance? Surely an exceedance is just one, or have I got that wrong?

A It could be, depending on the organism, I guess.

Q Depending on the organism. Now, if we look at, again, the sort of generalities of IMTs, who are the relevant people? You called it relevant people, so who are the relevant people in an IMT? We might just do it by looking at the people at this IMT and discussing without, I suppose, reading their names into the ether, working out why they're there. So, the first person is easy, Professor Williams. He's the lead infection control doctor.

A So he would be the chair.

Q That's why he's there, and you're there because you're the lead infection control nurse----

A At that point, I was, yes.

Q -- at that point. I'm assuming that the third person is possibly a treating clinician?

A Clinical Director for the service and, yes, a physician.

Q And Ms Rogers was, at that point, the Nursing Director.

A Chief. Chief Nurse----

Q Chief Nurse, right.

A -- for the paediatric service.

Q Of the remaining people, other than Mr MacLeod, who takes a lot of these minutes, I notice----

A Calum.

Q -- would any of them been from Facilities or Estates?

A Jonah Aitken I'm not familiar

with.

Q Well, maybe we just do it in generality. So, obviously, we understand why the lead infection control doctor is there and we understand why the lead infection control nurse is there and I can understand why the treating clinician would want to be there, but who else would be an appropriate or relevant person to attend an IMT, just in generality?

A Yes, so it depends. You might have a preliminary meeting and then, through that meeting and discussing the cases, you might recognise that we need Estates, we need Facilities, we need Microbiology, Lab. You might identify that you need someone else to join, so press office, although I can see there's press office there. You might not have that person at the first meeting, but you might decide we actually need that person for the next meeting, so where you don't have a relevant person following the discussions of the incident, you might then decide that they would be invited to the next meeting.

Q So when you invite someone from Estates, what are you wanting from them, as it were?

A So it depends. If your incident is about an exceedance of norovirus, you wouldn't necessarily invite Estates, but you might invite the Facilities cleaning

services (inaudible).

Q Yes.

A Where you would invite Estates would be where you think you have a potential source for your organism that involves the built environment.

Q I see, and why would you need a press officer?

A So, when you have an IMT, you do a HIAT Assessment, which is assessment of the incident using a national tool.

Q Yes.

A One of the criteria for assessing that is public anxiety, and when you look to discuss public anxiety, what we'd be considering is if any parents had raised concerns, or when the adult, any patients had raised concerns that would indicate that there was a higher level of anxiety. But we would also invite press to determine if there had been any press enquiries into the incident. It might also be that, depending on the assessment, we might have to write a press statement, and the press office would be involved in writing that press statement.

Q It seems, from reading a lot of IMTs in the last few weeks and months, that they never seem to reach an ultimate conclusion. They never say, "We think"-- well, generally don't say, "We think it's X." There's much more talk of hypothesis,

what you might describe as soft language and not reaching a hard conclusion. Do you think that's fair? And if it is fair, why is that where we end up with IMTs?

A In my years as an ICN, my experience is that often you can't determine exactly that that is the source, that is the root of transmission.
I think you hypothesise right at the start what you think is the problem. You put-- you undertake your investigations, you put your control measures in place, and where you have no further cases, you make an assumption that the control measures that you've put in place have actually been the correct control measures.

Q I understand that, but I don't see-- This isn't a good example because it's one particular one, but I don't see records in the IMTs that we're looking at in this Inquiry where people say, "We make the assumption that the control measures we put in place are effective." They don't actually write that down ever or have a wrap-up at the end, a conclusion. Is that a fair criticism?

A Yes.

Q Because I noticed that after the water incident, which we'll come to this afternoon, there is a wrap-up meeting that I think Ms Emery(?) chairs in May 2018, but that seems to be rather unusual. Do you think there should be more of these wrap-up meetings or----

A Yes.

Q -- ending processes?

A Yes. There's lessons learned, and there's a hot debrief tool in the National Manual that we can use to do that very thing. I can't remember when it came into the National Manual. I don't remember the date, but there is a hot debrief tool, and yes, that's a useful tool to summarise, and it's also useful to share experience. We have five sectors in GGC. They have five sectors in GGC, and it's useful to share that hot debrief. It's also useful to provide that to ARHAI so that they can share the learning with other health boards.

Q Thank you. I think this is probably an ideal time to stop for lunch, my Lord.

THE CHAIR: As I think I said, we usually take lunch between one and two, so could I ask you to be back for two o'clock?

A Thank you.

Q Thank you.

THE CHAIR: Right. We'll aim to sit again at two.

(<u>Short break</u>)

THE CHAIR: Good afternoon, Ms Joannidis. Mr Mackintosh.

Q Thank you, my Lord. So, what I'd like to move on to now is the topic of the water safety group, and in your statement-- The reason I'm asking this is, in your statement on question 27, you explained that you "don't recall the content of a DMA Canyon report."

A Yes.

Q I wonder if we can look at that question, so that's on page 458 of the statement bundle. The question we asked you was:

> "When were you first made aware of the DMA Canyon reports? How did this come about?"

So I wonder if I can press you: when did you first become aware of the content of the DMA Canyon report about the hospital?

A I can't remember.

Q You can't remember?

A I don't know.

Q The reason I ask that is because you served on the water safety groups as long back as 2012.

A That's right.

Q I wonder if we can go to bundle 11. Now, I think it's fair to say we need to look at the terms of reference of the water safety group, which is on page five. So we see that it refers to the Board Infection Control Committee and there are various people recorded as being

present, one of whom is the lead infection control nurse. I'm assuming that's why you were there.

A Yes.

Q Yes, and if we look at the terms of reference, within that is developing the water safety plan. You see that? Third one down.

A Yes.

Q And:

> "Effective planning and management of any clinical instance where the water supply is implicated."

A Yes.

Q Yes, and the first one is to fulfil the remit of the Board Water Safety Group as per SHTM 04-01. Are you aware of what SHTM 04-01 Part B says about the water safety group?

A I couldn't tell you what it says today.

Q Well, would you have known about it at the time?

A Water safety, yes. I would be aware of the document.

Q Right, okay. The reason I ask is because, if we go to page 43 of this bundle, we come to a meeting of the water safety group on 4 August 2015 in which you are recorded as being present in rather a lightly attended meeting.

A Yes.

Q Despite the reference in the terms of reference that deputies should attend, you are there with Jim McFadden, Sector Estates Manager for Clyde; Alan Gallacher, General Estates Manager for Estates; John Green, Health and Safety Service Manager, Facilities and Partnerships; and Billy Hunter, the Chair, is General Manager for Facilities South and Clyde Sector.

What I want to jump to is on the next page, item 5. I have no expectation that you will remember this necessarily, but I'm intrigued to see what it might mean: "Alan Gallacher noted that the policy had been endorsed by BICC," so that would be Board Infection Control Committee. (After a pause) So would BICC be Board Infection Control Committee?

A Board Infection-- yes.

Q Yes:

> "… due to be reviewed in May 2016. Site-specific schemes are required to be produced by the end of October 2015."

So when you say "site," would Queen Elizabeth University Hospital have been a site in this context?

A Yes.

Q Yes, and can you explain what a written scheme is?

A No.

Q No. It then says:

> "DMA will base a written scheme on the Southern General Hospital-retained site based on SHTM 03-01 Part G, which will be shared with AE for input and bring to this group for endorsement. Draft to be discussed at the next meeting prior to rollout"

So the question I wanted to ask-- Well, the next sentence is:

> "JMF noted the template has been produced for Queen Elizabeth. The written scheme will identify the control issues."

Does it seem, from this minute, that there was a discussion of the need for a written scheme for the new hospital at this meeting in August 2015?

A So there was a written scheme for all parts of the Health Board.

Q Well, in fact, we've had evidence there wasn't a written scheme at this point.

A I was just-- I was just going to say I-- I wouldn't know if there was one, but there should have been.

Q Well, indeed. It's not so much whether there was or wasn't one, but would you agree that this minute looks like it's describing the discussion of whether there should be one?

A It looks as if it is, yes, (inaudible).

Q And it looks like it's to do so based on a template from DMA Canyon?

A Yes.

Q Yes. Now, the first question, which I think I'm going to know the answer to this, but I should ask it for completeness: at this point, August '15, was the fact that the new hospital had failed its L8 risk assessment known to the water safety group?

A I can't give detail, but that triggers-- yes, that Legionella was discussed.

Q Could it have been discussed in the context of the retained estate?

A I couldn't differentiate, sorry.

Q Because the thing that's concerning me is when I read through all the minutes of the water safety group, it doesn't appear that it has regularly reported to it that individual sites have failed assessments.

A Right.

Q So that isn't in there, so I'm not going to assume anything, but I'm wondering if you can recollect whether at that point you might have heard of a Legionella risk assessment failing for the site.

A So, I remember Legionella was discussed, but I can't remember detail.

Q Do you think it might have been discussed back in '15 or '16?

A It certainly would have been. The Board Water Safety Group discussed all sector-- they got feed in from all sector water safety groups, and those would have been brought to the Board Water Safety Group and any highlight issues mentioned.

Q I'm conscious that this is a long time ago. You see at item 8 there is a discussion that Mr Gallacher met with Craig Williams and John Hood to discuss Legionella sampling, which of course is not the same as a risk assessment.

A Yes.

Q Then, item 9, "Risk assessment water safety," and there's a discussion there of a risk-- Well, I don't know what that is. Do you know what a “Risk assessment water safety – July 2015” is?

A So that specific risk assessment-- and it's badly minuted. So, I’ll take you back to why I'm on the Board Water Safety Group.

Q Yes, of course.

A When I-- after I became the nurse consultant, Tom Walsh approached me and said, "Can you sit on the Board Water Safety Group in a clinical presence?" And it was to make sure that the Board water safety policy incorporated the document, the "Minimising Risk from Pseudomonas."

Q Which was new at that point?

A I can't remember the date, but

I think it was.

Q Yes.

A So I was asked to incorporate some wording into the Board Water Safety-- so my reason for being on the Board Water Safety Group, I was told, was only to do with Pseudomonas and the clinical aspects of Pseudomonas. Because I questioned why I would be on the Board Water Safety Group when I have no expertise.

Q Well, indeed, that was going to be a question, but you've answered that.

A I have no expertise, so I got clear instruction from Tom Walsh and that's when I agreed to go on to the Board Water Safety Group. So the risk assessment at number 9 is the risk assessment that I undertook with Craig Williams and John Green, Health and Safety Officer, around Pseudomonas.

Q Because the final item in AOCB on that page is a discussion of a requirement to have risk assessments as and when required, which is a change to the guidance. Do you recollect there was any discussion about when individual hospitals had had their risk assessments done?

A I don't recollect, and my risk assessment would cover the whole of GGC.

Q So your risk assessment was a general risk assessment?

A It was a general risk assessment undertaken by myself and John Green and ICD at the time, and it linked to the Pseudomonas guidance only, yes.

Q Then, on the top of page 45, the next page, there's a discussion about written schemes. Do you recollect whether there was a pan-Glasgow approach to written schemes?

A I can't say. I can't remember.

Q Right. Well, I want to do----

A There would have been, though, because the original Board water safety policy was called, "Board Water Safety Policy and Written Scheme," so there would have been a Board written scheme attached to the policy----

Q Right.

A -- when I first started the water safety group.

Q What I wanted to understand – and you may not be able to help me with this – is do you remember whether, at this point in 2015, the water safety group was discussing the water system in the new hospital and what state it was in?

A I don't remember that.

Q One of the concerns that I suppose one could have about water safety groups is that if they're focused on policies and the presence of policies, the existence of policies, the maintenance of policies, they're not very good at

responding to events, and how would you respond to the suggestion that the Board Water Safety Group, or the Health Board, wasn't very reactive? It was just focused on achieving-- ticking off requirements that are in SHTM 04-01?

A I think it was reactive to certain-- because we did-- there was a lot of discussion about results and schemes and a lot of operational issues discussed, a lot of technical discussion that I found hard to follow but was comfortable that I wasn't there for that reason.

Q The interesting contrast is that you-- we can take this off the screen-- is that we have a Water Safety Group on which you are present to just bring your particular perspective to around Pseudomonas, and it's reaching decisions. Then we have incident management teams where everybody is involved in the decision and everyone seems to have an opinion on every aspect of it. Is that a fair description of the difference, that one is a series of people who are specialists, and the other is a consensus body where everyone has their say?

A The Board Water Safety Group was bringing together all the work and minutes from the individual sector Water Safety Groups, so perhaps it was because there were sector and on-site safety-- Water Safety Groups with local working, and they would be populated by people, but then those minutes would be brought----

Q So it was more a collection point for minutes than a place for making decisions about sites?

A I think problems were brought to the Board Water Safety Group and they were made aware, but then they also made aware of what actions had been taken or would be taken with the----

Q But I'm just worried that-- how could you participate in the meeting as a full member if you only were there to represent a particular specialism?

A I think it was made very clear to me – and I made it clear to Tom Walsh – that I wouldn't be there for anything other than what he asked, and that was the Pseudomonas, and that in itself required a lot of liaison with clinical staff and particularly around flushing. That had an impact on Legionella, obviously, but-- and we used those risk assessment documents if we had a patient with a Pseudomonas.

Q How does a Water Safety Group make decisions if some of its members are only there for particular subtopics because that's the limits of their experience?

A I would be aware not to give an opinion outwith my scope of practice.

Q Do you think that's an

important principle?

A I think it's an important part that I don't give advice where I'm not qualified to give that advice, and where it's not my remit to give that advice.

Q That's helpful. Well, I think what we'll do is move on. In your statement on-- later on in-- At this point, I have helpfully not written the paragraph down, but I will find it. You have said-- question 23, page 455, you were asked:

> "Do you consider there to have been a risk of infection from the water supply? If so, explain why."

And you've given your answer, which was, "Yes," and then that:

> "Disinfection of the water supply with chlorine dioxide and also the use of point of use filters on all water outlets reduced the number of positive cases. This would indicate that there was a potential risk from either the water supply or contamination of the outlet itself."

There's two questions that arise from that. One is following on from that: if at all, when do you think that risk ceased?

A (After a pause) I think, given the building and the number of the incidents that we met to discuss and given that so much had to be put into the system, the remedy and problems came up. I think the reason you have a risk assessment and written scheme is that you can never be complacent, and that you would make sure that your written schemes, your plans, were continually looking to make sure that the water supply was safe.

Q I appreciate that, but you've said that you consider there to have been a risk, and the implication that is one that was then tackled by these treatments-- these changes. If there was a risk in the past, when did it stop, or has it not stopped? Is it still there, or was it still there when you retired?

A There wasn't an incident being discussed when I left. At the point when I left, I can't comment on now. I think you would always-- you have alert patients, you have alert organisms that you look out for, and you would continually-- Risk assessment is an ongoing process. Your written schemes have to be reviewed continually. There's water testing, there's temperature testing. All of that is because you recognise that there could be a problem, and you've got legal obligations to make sure----

Q No, I appreciate all that, but I think I'm probably not asking the question clearly, so I'll try again: in the answer to this question, I've read you saying that you do consider there to have been a risk of infection from the water supply,

because you said, “Yes.” You then explained your reasoning a little bit in the next two sentences. What I want to understand is, if you consider there to have been one, when did it stop?

A So, the water supply in water sampling was positive at certain points for certain organisms, and at the point where the water was no longer positive, I would deem that to be a success in terms of the treatment of that system.

Q Thank you. Now, the other thing – because I'm conscious that you explained at the beginning that you don't have any training on water safety – is, was that an unfair question? Should we not have asked you that question? Is that within or without your level of experience?

A I think if, as an IMT, you are told water samples are outwith what you would expect and that you could correlate that with positive patients, then that would be for infection control nurses to consider, yes. We wouldn't have the technical experience in how to manage that risk from the water supply, but we'd certainly be aware of it.

Q So you feel that the question of whether there's a risk is determined by whether the samples are out of specification, in a sense?

A Yes.

Q Right. I think I'll come back to

that, but what I want to do is just move on a little bit and look at a-- you mentioned briefly in your statement-- I don't think I need to go to it-- Well, let's go to it. It's the previous page in C. You remember a group had met with HBS to discuss the choice of taps for the new hospital. Now, would that have been a meeting in June 2014 about Horne Optitherm taps? Does this ring a bell?

A Yes.

Q Can we just look briefly at the minutes, so I make sure I'm on the right page? Bundle 15, page 692. Now, obviously, you're not recorded as being present, so I'm assuming you learnt about it from somebody else?

A Yes.

Q When did you learn about it, approximately: soon after or many years later?

A I don't know. I can't answer that.

Q If you go to the next page, it might just jog your memory a bit. The one after that, sorry. We have an answer at 5.3 about the South Glasgow Hospital, and it's recorded that it was "unanimously agreed that ... the taps should be installed" and:

> “There was no need to imply additional flow control facility [the last sentence] or remove flow

straighteners and any residual perceived or potential risks would form part of the routine management process."

What I'm wondering is either you might have learnt about this before the hospital was built or you might have learned about it when you're actually helping to run a ward, in a sense-- a hospital that's got these taps in it, and you want to know about the taps, and I wonder if that helps you work out when you learnt?

A So I think I would have had feedback at a weekly meeting about the taps because I would meet with the senior management team.

Q This is probably at the time it happened rather than later?

A I would think so.

Q Right. Well, the question I want to ask, then, is-- We understand, the Inquiry understands, that the hospital had a large number of these Horne Optitherm taps fitted. You know what taps I'm talking about?

A Yes.

Q When did you first become aware that they needed some form of regular planned maintenance?

A Do you mean before this meeting?

Q No, ever.

A Ever?

Q I mean, I think it's after the meeting, but I'm intrigued to know when you would have known they need to have regular maintenance.

A Yes. I think all taps would need maintenance, one way or the other. I don't think you can just leave a tap. I think you have to make sure that it's serviced. I couldn't----

Q Well, in that case, I'll ask the second question-- Sorry, carry on.

A But I would imagine it was after I was given feedback from this meeting about decisions made about the taps.

Q So we've had some debate amongst witnesses and in documents about when the maintenance of these taps started. So, I'm not talking about flushing them because that seems to have been done by domestic staff and that's not what I'm talking about.

A That's everything.

Q A process has been described to the Inquiry that involves actually physically removing the tap from its mounting and cleaning it in some relatively busy way, and what I suppose I could ask you – because you would have been in and out of that hospital a lot because you were the lead infection control nurse – is when, if ever, did you see people routinely removing and cleaning these taps, as opposed to

normal cleaning and flushing?

A I don't think I ever observed anyone actually undertaking that, but that might be expected because it's single rooms and you might not see activity in a single bedroom.

Q Well, indeed. You might not see it, so that's not definitive. We'll ask somebody else. Right. Now, while we're talking about taps, we're might talk about water testing. Now, obviously, I appreciate that you said earlier on that an infection control nurse doesn't decide how much water testing should be done, but the Inquiry's experts have looked at the water testing results they've received from the Health Board, and as they've set out in two of their reports, they've noticed that only 47 water samples were taken in Ward 2A, 2B in 2016, when the year after there's a lot more, and I just wondered if you had noticed any change in the frequency of water testing samples being taken in those early years when you were the lead infection control nurse?

A So we wouldn't be informed about when samples were taken and frequency. We might be told by the infection control doctor, "By the way, we've done extra water testing because of," but I don't recall any events, so we would be told.

Q You'd be told, and so you can't explain the differential number yourself?

THE CHAIR: My fault, Mr Mackintosh. The 47 samples in Ward 2A, that's in 2016?

Q In '16, yes.

A Thank you.

Q (To the witness) I don't think you are the right witness to explain that number, so we'll go and ask somebody else.

A Okay, thank you.

Q Now, I want to just pick up something about chilled beams; I know we've talked about them already. There's been some evidence-- well, there's some details in your statement about-- that the beams were dusty on top and appeared to drip condensation at times.

A Yes.

Q That's on page 457 of your statement, and that's at the bottom at J. This is a difficult question to answer but an easy question to ask, which is, how dusty were they?

A They were a level above what you would expect. They were on the ceiling, so therefore they weren't easy access to clean them, but there was a relative level of grime.

Q How often do you-- did you need to have them cleaned when you were working in the hospital, or arrange them to be cleaned or see they were being cleaned, when you were working there in order to keep them to something

like acceptable standard?

A So when it was identified, I think we put "six-weekly." It could be more or less than that, but round about six-weekly, I think, it was decided that we would get these cleaned because that introduced an element of extra work, who would do that, because you would have to climb a ladder to get to that work, so there would have to be SOPs written.

Q And you have to move the patient out of the room?

A You would have to-- you'd move, but even with the patient not in the room, you would still have to climb----

Q Yes.

A -- up to reach, and I do remember – it's just come into my head – that Facilities were trying to identify a cleaning tool, a microfiber cleaning tool, that would reach the top of the chilled beam without having to use a ladder.

Q I see, and in terms of the condensation, how much condensation are we talking about here: occasional drips or significant quantities?

A I don't remember it being overly much. I think there was just drips and drips that you couldn't-- you didn't know when the drips would happen, and the way the chilled beams were situated in the ward and the way the-- in the room and the way the bed was, it could drip onto the bed.

Q Would drip on the bed, right. Now, what, if any, risks do the dust or condensation from chilled beams that you saw pose to patients in those rooms?

A So, the dust would-- the combination of the dust and the condensation and the drips was bringing the dirt from the dust down onto the environment, down onto the patient bed, onto the floor and, at some point – and I don't remember when – the beams were sampled and there were organisms, environmental organisms, there. So that would mean those organisms in that dust coming down having a vehicle to come down into the patient area.

Q Now, these beams, chilled beams, were in all the rooms in the hospital, we understand, so you may not know this. Was there anything particular about the patients in the Schiehallion unit that makes them more or less vulnerable to infection?

A Yes. They are classified as a high-risk group and that's because they have procedures, medications, or their condition will reduce their body's own reaction to infection, their protective reaction to infection.

Q Are there any other wards in the Queen Elizabeth adult hospital that would have contained patients who had a reduced immunity in a different or broadly similar way?

A In a similar way, yes. You have 4B. When the Beatson BMT unit moved across, that would be when, but any patient who has high-dose steroids, for example, which dampens their immune system-- So, there could be various patient groups that might be at higher risk of infection.

Q And would that include patients in 4C?

A So I think 4C was haematology.

Q Yes.

A I think. So, yes, there might be periods. Not as extensive as the BMT patients, because their immune system was actively dampened down, but yes. Yes, they could be at risk.

Q Your statement doesn't contain a huge amount of detail about infections before 2018 in the Schiehallion unit, but I'm putting that down to the passage of time. I'd like just to look at one particular example and hopefully learn a little bit more about it, and that is the issue in the aseptic pharmacy, which we see in a PAG from 17 June. That's bundle 2, page 10 of 2016, so that's 17 June 2016. Now, it’s worth taking a moment just to check in what a PAG is because it's not an IMT, it's something else. What's a PAG?

A It's a problem assessment group.

Q Is it more informal?

A It could be more informal. It could have the same general people, but it can be seen as an initial meeting to discuss whether we need an IMT.

Q And so one of the things that I wanted just to see about this one is it states:

> “Routine water sampling of the aseptic unit has revealed persistent colonisation with Cupriavidus pauculus, a gram-negative environmental organism.”

Now, was an action taken in respect of the aseptic pharmacy following this PAG?

A Yes.

Q What was that?

A So, Dr Inkster alerted me to the fact that we had a patient with a positive blood culture and samples taken from the aseptic unit that were positive for the same organism. They didn't know if it was the same type; typing hadn't been undertaken. I asked what she wanted me to do and the team to do. She said the patient is well and gone home, but that could I do-- could I meet with the aseptic unit manager, Joanne, and just do a walk around. She also asked me to look at if I could get her copies of their SOPs, and also if I could find out what water sampling and where the water samples

went. I do remember quite a bit about this incident because I was involved.

Q You eventually did a presentation at a conference with Dr Inkster on this, did you?

A Yes.

Q Yes.

A Did I? Yes.

THE CHAIR: I should know the answer to this: the aseptic unit, is that within the pharmacy?

A It's within a specialist unit, so it's not within the main pharmacy.

THE CHAIR: All right. Just briefly tell me what it is. I'm (inaudible) should know the answer.

A Yes, no that's fine. The aseptic pharmacy prepares sterile products for intravenous injection.

THE CHAIR: Right.

A So it’s set at a really high level. It has within it a clean room that has no water and the very, very strict protocols to enter and leave, and very strict protocols in terms of what goes into the clean bit. So, yes.

THE CHAIR: Thank you.

A Is that okay?

Q I think I understand that-- was eventually steps taken to remove a sink in this room?

A Yes. I spoke to Joanne, the aseptic manager, and we did a walk around and I asked her, once she'd

shown me her protocols and I'd sent them on to Dr Inkster, water sampling, regular water sampling, that didn't go to Queen Elizabeth, it went to Stobhill, I think, lab, the quality assurance lab at Stobhill. She then-- I did a walk round and she took me through her processes: how medicines came out of the clean area, the sterile room and into boxes and prepared in the preparation area. She then took me around the staff area, the staff changing facility.

During that time, she told me that the one sink in the unit in the prep area was the one that had been positive and we-- I identified a sink in the changing room that was deemed a little-used outlet because it was never used by staff. It was a tiny sink for hand hygiene, but the fact was the unit had a shower room and toilet which had a hand hygiene sink in that and staff used that, so everyone agreed that that could be removed as a little-used outlet.

The actual sink, as well, Joanne was getting advice from the Stobhill lab about what to do with the sink and she was scrubbing the sink with brushes, so we changed how that was done. We stopped the use of the sink immediately and then Estates came along and I can't remember if they changed the tap and the sink or both, but certainly the tap was disinfected and they started Sanosil, I

think it's called. It's a disinfection product for the drains and we had several meetings after that in which I liaised with facilities around the cleaning of that sink and in terms of the cleaning and the cleaning products that were used in the prep area.

Q Thank you. So, just to recap, the underused sink that was used for handwashing was removed, and the sink that had had a positive sample was refitted?

A Yes.

Q Yes, right. I suppose my question is this, is that it sounds to me that at the time you are looking at the place, the aseptic pharmacy, it's the place that's interesting to you. The sinks, not the system, the whole water system, that's interesting to you. Would that be a fair comment, a fair description of what was going on in your mind at the time?

A That's a fair comment.

Q Right. Now, this is June of 2016, so the hospital has now been open for just over a year, and you, at this point, and, indeed, as far as we can tell, nobody in the Schiehallion unit or Infection Control knows that the building water system has been assessed as high risk for Legionella the previous April.

I realise this is a hypothetical and it's a long time ago, but what difference would it have made to you at the time when investigating this particular outbreak-- not outbreak, that's the wrong word-- this particular instant if you had known that there were concerns about out-of-temperature readings or dead legs in the system from the previous year?

A It might have been easier to understand why they were getting high results in that sink and why that sink had the Cupriavidus.

Q Because we don't actually get that realisation until 2018, two years later, do we?

A Yes.

Q And so the question is, obviously, you left in March '17 and were replaced by Susan Dodd and went back to being a nurse consultant full-time, but do you think the fact that the problems that were observed by DMA Canyon were not identified by those involved in managing the hospital at a higher level and the Infection Control team until 2018 in any way held back your practice as lead infection control nurse? Would you have benefited from knowing what was found out later?

A It would help to explain because, with the incidents, we were searching for answers and where the water supply-- what we consider an environmental source, it would have helped to understand what was going on. All that information would have been

helpful.

Q Can I take you back to your statement, to page 444 of the statement bundle? This is question 22. It's about moving on to the water incident. In fact, let's-- can we go back to question-- page 440? I think I've got time for this. Yes. At the bottom of this page, you are asked a question which I think is possibly a little bit unfair.

> “Does the extent of the infection observed in the hospital differ from what might have been expected before the hospital opened. Why? Why not?”

And you've answered that you thought a new building would have posed fewer risks of infection to the environment than an old building, and then over the page, if we look at the rest of the answer, it just-- you wrap it up there, and you observe that "in terms of novel or rare organisms, I think they could happen whether it's an old or new building." What I wanted to do was understand is there a difference, from your point of view as an infection control nurse, in managing a ward in an old building compared to a new building, or should there be a difference?

A I think it's well documented that older healthcare estates can pose-- because of fabric of the building, faster deterioration, more difficult to clean that building. I think those all add to the risk, and where the building was built to previous SHTMs and not yet had a refurbishment to bring it up to current SHTMs, then those buildings could pose a risk.

Q Because it's just harder to do the job, effectively?

A It's harder to do the job. The biggest risk is from fabric that deteriorates where it impacts on cleaning.

Q So that's walls, ceilings, doors, furniture?

A Doors, fabric of the building.

Q And things grow in that sort of material?

A Yes.

Q Yes.

A Yes.

Q Well, that's very helpful. What we'll do is we'll jump back to where I meant to go, which is page 444, question 22. I just want to make sure I've got everybody's jobs organised in my mind.

THE CHAIR: Just before we leave that point, and Ms Joannidis, if this is going beyond what you feel able to give an opinion, just say so. What I'm taking from your answer to 16 is that, at least in broad terms, you would have expected the new Queen Elizabeth and children's hospital to present, simply by being new, conforming to more recent HTMs and

having the benefit of general technological advance-- to present fewer environmental risks of infection than an older building such as Yorkhill?

A Yes.

THE CHAIR: Would it be too much of a simplification to say that you would expect it to perform better? I haven't told you what I mean by "perform," but generally have a better experience of environmentally caused infections than an older hospital, such as Yorkhill?

A You would hope so, given technological advances, latest research and where you have the benefit of expertise learned. I think Yorkhill was built in 1965, I think, so you would very much expect a new building in 2014 to have fewer risks.

THE CHAIR: Right. So, in a sense it's not really fair to compare Yorkhill with a newer hospital? That's maybe a bad way of putting it.

A I think it would be unfair to suggest that the building, Yorkhill, before transfer wasn't maintained. I think that would be unfair to say that or to suggest that, so that----

Q So the Yorkhill was-- is a different challenge for the IPC team for the reasons you've explained, but it's not that it wasn't maintained, it's just that it's different and possibly, in various ways, harder?

A I don't want anyone to think that I'm suggesting in any way that Yorkhill wasn't maintained----

Q No, no.

A -- to a very high standard before the transfer of the patients.

Q But it might have required more work to get there.

A Yes.

Q Even though you get to the high standard.

A Yes.

Q Right, I understand. I'm going to jump actually and miss out a bit to 458. We've been here before. Remember I asked you a question about the DMA Canyon report? Below it there is a statement – look at question 27A – where we put to you a position that one witness, particularly Dr Peters, has observed that if she had had sight of the DMA Canyon report in 2015, she would not have allowed the hospital to open. And you were asked if you agree, and you say you're not in position to answer this. Could I ask you to explain why you're not in a position to answer that?

A So I don't know what Chris Dean's-- Dr Peters', sorry, comments at that time were and what her concerns were, and I don't know what was done when she did raise them and-- Yes, I just felt that I wasn't party to that conversation.

Q Okay, well, maybe I can ask a different question. You're on the Water Safety Group. We've looked at the minutes from August 2015, and we know that there-- or we think-- That's a better way of putting it rather than "we know." We think there wasn't a discussion about the DMA Canyon report then. Everything suggests there wasn't.

The hospital opened to some patients in April, and it was handed over in January. What do you think would have happened had the Water Safety Group learned, over that winter, that the hospital had failed its Legionella risk assessment, in terms of the effect and whether it opened on time?

A I would expect that once that document was known and that information was known that there would be a plan to address that.

Q Would that cause a delay or would that cause a risk assessment?

A I suppose it depends on to what extent the measures that were put in place were effective.

Q I use it as an example, which you might well be aware of, is that-- Do you remember we looked at a report-- a note which was seemingly sent to you by Dr Williams, or rather a meeting that-- you'd had a meeting-- You had an action point from Dr Williams and we looked at the note. You didn't feel comfortable to

comment on it, and at the very bottom it said that:

> "... notwithstanding these risks because of the urgency of the transplant, they felt transplant should go ahead."

Do you remember that?

A Yes.

Q Right, so am I right in thinking that when one decides to open a facility, there's more to consider than simply whether the water system----

A Yes.

Q -- is compliant?

A Yes.

Q So are you suggesting that if there was a plan, that plan would have taken account of all the different risks?

A Yes, and it would be a multidisciplinary group making that decision and ultimately including the patient's consultant.

Q But as far as you're aware, that process didn't happen because people didn't know about it at the time?

A I don't know if it happened or not.

Q You don't know if that happened or not. Okay. Well, let's move on to the water-- what's commonly known as "the water incident." We have a lot of these IMT minutes----

A Yes.

Q -- and, of course, you attended a few in the first few months, I think. Can we go to bundle 1, page 66? Now, this is 16 March. Do you remember at the beginning of 2018-- Well, at the beginning of 2018, you were a nurse consultant.

A Yes.

Q What was the nature of your role then?

A So, I stopped being the lead-- the acting lead for the paediatric service, I think, in March 2017, so this was a year on and, as the nurse consultant, I had a number of things in my job plan that I took forward. I also, where necessary-- I would sit in on an IMT if either the Infection Control Manager or Sandra Devine couldn't do that. So, you can see through these minutes that I might be fired into an IMT, but not----

Q Well, I do notice that you're sometimes there when they're not.

A And I'm sometimes there and I'm not-- You have to take into consideration that the South Sector is one sector and there are five sectors across the whole of GGC, so there might be an IMT or an incident down in Clyde that I would be sent to. So, if it was thought necessary and also if they thought I might get an action from that IMT, and there's evidence of that when they asked me to go and look at the drains in all the sinks.

Q Yes.

A So that would be when I might be asked to join an IMT.

Q I'm therefore not going to ask you about individual IMTs----

A Yes.

Q -- and what happened to particular ones until we get to the decision to decant, but just in general, at that early part of 2018-- I think this might well be the fourth or fifth IMT-- No, this is the first IMT, sorry-- No, it's not the first IMT. Let me get the number right because I think it's probably important----

A I think this is the first.

Q -- we get that to you. It is----

A Oh, no.

Q It's the fourth.

A Yes.

Q Now, so in this early part of this process with what eventually becomes known as "the water incident" or what's called "the water incident" here, what then were the primary actions being undertaken by the investigators that you can remember?

A So there was, from what I remember, environmental sampling, water sampling. There was consideration of prophylactic treatment for patients, I think, and there were discussions about the safety of the ward.

Q And----

THE CHAIR: Sorry, discussion about?

A The safety of the ward in terms of the water.

THE CHAIR: Thank you.

Q Now, what I want to do is to see that you did attend five meetings around the time of the decant decision.

A Okay.

Q I want to look at them in a small amount of detail and then ask you a couple of questions. If we go to page 164, we see that we have a meeting on 14 September. So you get the context, it's not the meeting before the decision is clear, it's the meeting before that. It's the penultimate meeting before the decision. What I wanted to ask you is, at this point, I don't see-- I see Tom Wolfe's there. Are you, effectively, at this point standing in for Sandra Devine?

A No, she's there.

Q She's there as well, so why are you there?

A Again, it might be because they might feel there might be work that I could do. Susie had a lot of work to do around this incident, a lot of actions to take forward, and I would be there in case there was something that they needed me to action, or if I could lend advice to the process.

Q So, in this sequence we learn that there is to be a decant ultimately towards 6A, with the bone marrow transplant patients going to Ward 4B. What was the potential risk that was trying to be avoided by the move?

A So I think the environmental-- the positive environmental results and the investigations that had been put in place to that point-- they were still identifying cases just before that, I think, and therefore options had to be put as to whether the patients stay on the ward and we can mitigate risk, or if it would be the right thing to move the patients.

Q There was, in fact, an options paper produced by Jamie Redfern. Do you remember that?

A Yes.

Q You didn't write it, so I'm not going to take you to it.

A (Inaudible) I wasn't part of it.

Q Who actually made the decision to decant the unit?

A I don't think I can answer that. I think-- I think it would be ultimately those responsible for the patients at that service to make that decision with all the facts in front of them.

Q Who would that be in terms of the hierarchy and system of Greater Glasgow Health Board?

A So, within the children's services, you have a director and you have the general manager. You have a clinical service manager and you have a

chief nurse, and that group would have spoken to clinicians. To help them to make a decision, they would have spoken to Infection Control teams, they would have spoken to Estates and I think, ultimately, they would have spoken to the medical director for the Board and the chief executive.

Q Yes, but who made the decision?

A I don't know. I can't answer that.

Q Well, all we can do is look through the minutes. Shall we? So, if we go on to this particular minute and we jump forward to page 171, do you see at the bottom we have "Contingency/Decant"?

A Yes.

Q So, Kevin Hill, is he the manager?

A No, he's the director.

Q He's the director for the children's services?

A Children and Women's Services.

Q Exactly, so I demoted him there. My apologies. He's reporting back from an executive meeting, and he seems to be reporting that the executive group, which is the fourth line from the bottom:

> "... will wait until drainage expert will give a preliminary scope on how they will carry out their work and see what they find."

And then Miss Dodd is reporting anxiety of staff. What was the mood amongst the staff at this point?

A So I'm aware from feedback from Susie and also at the IMT-- it was either Brenda Gibson or one of the other clinicians present expressed that staff were concerned, so----

Q Well, let's got to the next page.

A Yes.

Q We'll see a little bit more. Then Mr Hill assures the group that the decant option is not off the table, and then there's lots of discussion about how the decant might work in the rest of that minute. At the bottom of the page, you see the IMT "still recommends a decant." Now, we're going to take you on a bit further to the next IMT, which is on page 175, and that-- you are present there. And then, if we go on to page 177, we see – have you got that? – "Contingency/Decant" and then the second paragraph, Grant Archibald-- who is Grant Archibald at this point?

A I think he was just under the Chief Executive.

Q Could he have been Chief Operating Officer?

A Chief-- yes, that's it.

Q And so he says:

"Grant Archibald informed the group that following a water meeting this morning, it was agreed that BMT patients currently in Ward 2A will be decanted [and describes the decant]."

So, does it look from this minute, and I appreciate there will be other documents for meetings you weren't at, that the decision was made by some executive water group?

A That's what it reads, yes.

Q Thank you. Now, I'm now going to turn to, if we take this up-- we'll go to page 258, please, actually. We'll get there quicker, yes. Possibly I've gone to the wrong page. Can we go to 255, and we'll start at the start of the minute? So we're now into January of the following year.

In your statement, you provided a limited amount of information in respect of Cryptococcus, and in fact can be found on page 448 of your statement, if we look at that as well. Now, do you see, in the second paragraph from the top, you discuss a plan to decant patients from Ward 6A to the clinical decision unit, and clinical decision units to Ward 2A? I wonder if that could be right because, presumably, at that point, wasn't Ward 2A still being rebuilt?

A I think Ward 2A works hadn't been started then. I might have this wrong, but I think-- I think it hadn't been started and it was an empty ward.

Q But it wasn't in use?

A But it wasn't in use because we had moved the 2A patients and therefore there was an assessment done that it could be used for front-door patients coming through. Obviously not oncology patients.

Q Right, that's what I wanted to be clear. Okay, that's very helpful to clarify that.

A I think that's what that is.

Q Right. We also have, on paragraph 29 of your statement, page 460, a discussion of a further decant to the clinical decision unit. This is at 29, and it's (a), and "the decision to decant low-risk patients from 6A to CDU." Now, what I want to do is just connect this to some other evidence I've had and see if there's a difference. There may not be. When you say "low-risk," what do you mean by low-risk in this context?

A So, in the Schiehallion patient group, the highest-risk patients would be those who were being prepared for stem cell transplant and who would require bone marrow transplant facility BMT rooms. At the other end, you might have a patient who is coming in for a new central line but who is out in the community, so that could be the

difference between the two types of risk.

Q So you saw that the people who would be moved to the CDU are those in that second category?

A Yes, and that would be determined by the clinicians.

Q The thing I want to just check is, at this point, which is 2019, this must be after the point you realise that the old Schiehallion in 2A outside the BMT rooms is operating at two and a half to three air changes an hour. Have I got that right? Because that would have been when Dr Inkster arrived. We talked about the----

A Yes, yes.

Q So were you aware what the air change rate was for all the other wards in the hospital at this point in 2019?

A My understanding was that, because of the chilled beams, where we would have expected six, we were getting three.

Q So you knew it was the same everywhere else, as it were?

A Yes.

Q Yes.

A I think it was, yes.

THE CHAIR: Right, sorry, you gave a figure there. You expected, in-- I think we're----

A (Inaudible).

THE CHAIR: -- talking about general wards at this point.

A Yes.

THE CHAIR: What did you expect for general wards?

A So there'd be a general expectation that it would be six air changes.

THE CHAIR: Yes, right.

A And the information I got back was that, due to the presence of a chilled beam, from an environmental point of view, it was three. It was actually three, so I don't know where it was all three, but it was three.

Q Thank you very much for that. I wonder if we can go back to bundle 1 again. Now, there was, I understand, in the late summer of 2019, or early summer, there started a gram-negative bacteria IMT. Do you remember those sequence of meetings?

A I think so, yes.

Q You aren't recorded at being a lot of them----

A Yes, that's when----

Q -- so let's take you to the first one I can find you at, which is page 338.

A Right, okay.

Q I think this is the fifth meeting. Now, I want to just understand, firstly, who's here, as it were. So, in order to keep things simple, we'll go through this list and, if they're a treating physician, I don't feel the need to read their name out.

We'll just work past; it's everybody else I'm interested in. So Dr Inkster is the chair. I'm interested to know whether anybody there is Estates or some other role or whether they're treating physicians, so----

A Do you want me to go through them?

Q Yes, the first one----

A The ones I know.

Q Yes.

A Lorraine is press office.

Q Right.

A David MacDonald is Facilities. I think he was the general manager, I think.

Q And Professor Steele was head of Estates.

A He was director of Estates.

Q Yes. Colin Purdon was Estates.

A You know.

Q Pamela Johannidis is you.

A Gillian is the lead nurse for the Infection Control-- Paediatric Infection Control Service.

Q So she's taken over from Susan Dodd, effectively?

A Yes.

Q Right.

A Annette Rankin from----

Q She's from HPS.

A HPS. Kevin Hill----

Q We met him before. He's the director for the Children and Women's Services.

A Yes. Sandra, you know.

Q Yes.

A Jenn Rodgers is chief nurse, paediatric service. Scott Davis is associate medical director. Alan Mathers is clinical director for the Women and Children's Service. You know Brenda. John Mallon is a lab-- technical manager in the lab.

Q Manager of the lab?

A I think.

Q Dr Sastry is a treating physician.

A Yes.

Q Dermot Murphy is a treating physician. Alan Gallagher is----

A And Calum doing minutes.

Q And Calum is back again doing minutes. Now, is it fair, and please tell me if it isn't, to notice there's a slight increase in the number of senior people from the hospital management at this IMT?

A That's-- yes.

Q Now, what I want to do is to talk about where we are in this story when you turn up because, at this point, we're now not quite a year after decant. We've had the mini decant, the CDU. There's filters on the taps, there's chlorine dioxide. What are the issues that are causing there to be this IMT?

A The issues are around increased cases of gram-negative positive blood cultures.

Q Now, was there anything unusual about where the environmental samples were being found at this point? I mean, I can put it to you, but I'd be interested to see if you remember.

A (After a pause) I don't----

Q Do you remember they were being found inside the filters?

A The point-of-use filters?

Q Yes.

A You mean they were on the outside?

Q No, I'll rephrase that. Let's go to the pages. So, what we'll do is, we'll go to-- (After a pause) If we can go to page 736, which is a senior management team meeting, which might summarise-- So bundle 13, sorry, page 736. The reason I'm going to here is I thought it might get us to the summary of information a little bit and work out what's going on, and we'll come back to the IMT minutes in the moment. So, this is a meeting of, I understand, of the Infection Prevention Control senior management team, and you're chairing it.

A Yes.

Q Yes. Now, if we go on to page 738, we have a report and this was a meeting in June of '19 of what's going on, so let's just work through it. We have,

"Serratia incident still open until programme tap replacement takes place," but that's in NICU.

A Yes, that's the Serratia in NICU.

Q Not in 6A?

A No.

Q The next section relates to NICU as well. Then we have a PAG that's not, I think, related to this issue, and then another PAG. And then we have, "PAG re Ward 6A."

A Yes.

Q And we have:

> "Gram-negative bacteraemia three times HCAI, two times HRI, monitoring to be continued. Water found to have reduction in gram-negatives. Theatre drains to be found visibly dirty with grime. Sample taken from the drains which have grown Stenotrophomonas and Enterobacter."

So do you remember this detail, or is it ringing a bell now that you read it?

A I'm not sure I can-- I-- I (inaudible).

Q What I'm interested in is what's the hypothesis at that stage about gram-negative bacteria in the ward in June?

A So, you have five cases. Three of them are healthcare associated, which means that they've been in and out

of the hospital, and two of them haven't been out in the period, the 48-hour period, and what they're doing here is looking at the patients, where they've been – so that's what you would expect to do – and looking at their pathway to determine which areas in the hospital, and clearly, one or more of them have been in theatre. And that's what they're doing: they're looking for a link to these. So I can't explain that sentence, "Water found to have a reduction in gram-negatives." I don't understand that phrase.

Q Could it be that there was a reduction in the number of gram-negative samples being found?

A Yes. I think that's what it is.

Q Now, the reason I went to this particular page is there's a discussion of a Mycobacterium chelonae case in 2019 here. I want to see what knowledge you had of the amount of Mycobacterium chelonae being found in the hospital at this point. So, if you can't remember, we can go to different documents, but if you can't remember, that may not actually-- that may be where it stops. Do you remember there being a case in 2019 that was in this IMT?

A I don't recall that. I do remember meeting, and I don't know if it's the same year, in terms of the adult service raising concerns of an increase,

but I can't remember what year that was, sorry.

Q Well, let's try it a different way. If you can't remember it, that will sort of-- that will be-- we won't be able to do much more, but let's go back to bundle 1, page 338. So we're back to 8 August now and there's a-- some minute changes, and then if we go the next page, page 339, and there's a discussion going on about water samples. Now, what I'm simply drawing from this-- want to ask you about is, do you have a recollection of there being a discussion in this sequence of IMTs about the chilled beams?

A Yes. Not detailed, but yes.

Q Not detailed. Well, that may not matter, but I'm just going to ask you a couple more questions, then wrap it up with a question. Do you have a discussion about gram-negatives being found? Do you see the middle-- the fourth paragraph from the bottom? Might read that before I ask you the question.

A Yes.

Q Do you have a question about a discussion going on about chilled beams-- sorry, about where gram-negatives were being found and whether they matched the patient and that sort of topic being discussed?

A Yes, yes.

Q Right, and do you-- if we go a bit further, over the next page to page

340, you can see at the bottom – three paragraphs from the bottom – there's a discussion from Kevin Hill about if Ward 4B could give more beds.

A Yes.

Q So was there some discussion about potentially some further decant going on at this point?

A For the BMT-- 4B is a BMT unit for adults, so there was clearly discussions about if this leads to a bigger-- and we do need to decant, what options do we have.

Q Yes, and then if we go on to the next page about-- which is page 4341, in the middle of the page, do you see a paragraph that starts, "Tom Steele"? Now, this is a very esoteric question, and you might not remember this: do you remember whether there was a discussion about the coolant in the chilled beams being an issue, rather than just dust and condensation?

A I remember, from the minutes that were sent to me this week, that there was an expectation that the content inside the chilled beam system would be sterile, but that-- in sampling, that they had identified Pseudomonas air.

Q So, I suppose the question that comes from that, looking back on all these years later, is, what was the issue or what were the issues in this IMT, 8 August, that we're looking at here, about what needed to be done?

A I think, by this point, they were looking at everything that had caused problems in previous IMTs, so chilled beams, drains, water, putting systems in place that we had put in-- or would continue to be put in place. I-- we were investigating any potential source for these organisms to explain that increase.

Q Now, this is possibly a difficult question to answer: to what extent was that a reasonable approach?

A I think that's a reasonable approach to ensure that you have a hypothesis for any incident, and that you investigate appropriately to either prove or disprove that hypothesis.

Q Yes.

A And in the meantime, you would put control measures in place to reduce that risk based on that hypothesis.

Q So, thank you for that. The question I want to ask you, which you might not remember, is, do you have any memory of-- You can discuss Mycobacterium chelonae, and you said you can't remember something about a year before, so this may be the edge of your memory. Do you have any memory of there being Mycobacterium chelonae in a patient in the Schiehallion Unit, or in the Schiehallion cohort, rather, in 2018? Now, you would then have been lead, so you might not have known.

A I would have been nurse consultant, so I might not have been told that. I might have been. I don't remember.

Q Dr Mumford, who's one of the Inquiry experts, has noted in her report looking at the BSI infection data that she's obtained from the Health Board that, in the early part of 2016, there was a patient in the children's hospital isolated from Mycobacterium chelonae.

A Yes.

Q At that point, you were lead?

A I was the lead, yes.

Q Do you have any memory about that being something that was noted at the time: "we have no PAG or IMT for it"?

A So, I do recall being invited to a meeting with Dr Professor Williams and the paediatric CF team, where they were discussing patients, and they asked if the infection control nurses could identify where that patient had been.

Q So this is in 2016?

A I think it was 2016.

Q And it's Mycobacterium chelonae?

A No, it wasn't, sorry. It was----

Q Right. Well, that will-- so, unwind that. So, going back to Mycobacterium chelonae, that's the question I'm asking about.

A Sorry.

Q The early part of '16, do you have any memory of that?

A No I don't.

Q No you don't, okay. I want to move past the meeting of 14 August because you weren't there.

A Right.

Q So you missed the meeting, and move on to the next meeting, which is 23 September. Now, this is on page 348. Now, before we discuss that, I want to ask you whether you have any experience of there being pre-meetings before IMTs?

A No.

Q When you arrived at this meeting on 23 August at ten o'clock in the morning, did you arrive early or did you arrive on time or did you arrive late? And were you aware of there being a pre-meeting?

A I don't know.

Q You don't remember or you----

A I don't remember.

Q Because it's been suggested that some of the people who attended the IMP, but not all of them, were in a pre-meeting before the meeting started in the same room, and that various people, including Dr Inkster and Annette Rankin, had to wait outside while the pre-meeting concluded. Do you have any knowledge about this?

A It doesn't ring a bell, but if

you're asking me-- Was this the first meeting that Dr Crichton was going to chair?

Q It was the first meeting Dr Crichton chaired, yes.

A Could that have been that there was a pre-meeting----

Q Well, I don't want to speculate, so----

A -- to update Dr Crichton because she was now chairing the meeting?

Q Possibly. Were you in the pre-meeting?

A No.

Q No, so we'd better ask someone who was there.

A Okay. Don't know.

Q So what I'm wondering is, do you remember the start of the meeting, this meeting?

A Yes.

Q Do you remember anyone drawing attention to the fact that Dr Crichton was now in the chair?

A What do you mean by "drawing attention"?

Q Well, asking, "Why is Dr Crichton the Chair?" or Dr Crichton explaining why she was in the chair. Was there a discussion about who's in the chair at the beginning of the meeting?

A I don't remember a discussion about why Dr Crichton had taken over.

There were introductions made.

Q Do you remember Dr Inkster raising the question of why she wasn't the chair?

A I don't remember.

Q What was the tone of the meeting?

A It's hard to describe, I think.

Q I'm afraid I'll have to press you to----

A Yes.

Q -- use some words.

A I think the meeting was business-like. Once introductions had been made, we got down to the agenda. Yes, I would say it was a formal meeting.

Q Before you arrived at the meeting, did you know that Dr Crichton was to take over?

A No.

Q I'm not going to ask you, "Was it a surprise to you?" because that tells you the answer. How did you respond emotionally to that?

A I was aware of Dr Crichton. We had previously done some work around pandemic influenza, just by telephone conversation, in a sort of emergency situation. So, I was pleased to see her as a person, and she just cracked on. She was very business-like.

Q Is it usual to replace the chairs of IMTs and Infection Control IMTs in wards?

A I would say no. It was normally have the same person for consistency unless the person who was chairing couldn't make that meeting for whatever reason but it was felt the meeting had to carry on.

Q But, in this case, the person chairing was at the meeting, so were you ever told why the chair changed?

A It wasn't explained to me why the chair changed. I wasn't given a formal reason for that.

Q It's been suggested in other people's statements that some people expressed surprise at the change, and particularly Ms Rankin and Dr Inkster, and it's been suggested in Dr Crichton's statement that there was something of a pushback; there was a distinct tone to the meeting when this was discussed. Now, obviously, they haven't given evidence yet, so we'll have to ask them for their version of it, but did you detect any of that when you were there?

A It might have been me, but I thought it was unusual that Dr Inkster was in the room and wasn't the chair, but I didn't know whether there were personal reasons or if something had happened.

Q Because we have evidence already from Professor Gibson about what happened, and she's not describing a work-a-day, formal meeting where nothing's mentioned. She describes discussion about this. Do you not remember?

A I don't remember, no.

Q Before this meeting, you'd been at one or-- one meeting, possibly two meetings. Were you at meetings of this IMT afterwards?

A Yes.

Q Was there any change of approach to the IMT after there was a change of chair?

A I do remember that Craig White, from the Scottish Government, became a member, I think, of this IMT. He wasn't there at this time.

Q What I was more thinking about, rather than the question of communications, is, was there any change of approach to the question of Infection Prevention and Control, and how it's investigated before the change of chair and after the change of chair?

A I don't-- I can't remember. I'm not sure I know how to answer that.

Q What's been suggested is that before the change of chair, the meeting was, as you described, a series of discussions about lots of different options that we've been through: chilled beams, water, drains, possible decant. After the meeting, it's been suggested that there were-- Well, what were the meeting-- what was the hypothesis after the meeting, after the change of chair, in the

subsequent meetings?

A I can't remember the hypothesis changing, but I do know that I was asked to look at the root cause analysis for each patient----

Q Yes.

A -- to see if we could determine anything more from this patient group.

Q "Root cause analysis," could you explain what you mean by that?

A So I was asked to do a root cause analysis. I didn't have experience in that previously, but it was decided that we would use a pro forma that was provided by HPS for the NICU Serratia incident, and we'd use that to collect data. From that, I would summarise any trends from any of the patient groups to try and identify if they were common themes, so a root cause for the infections. So we looked at individual patients and their journey prior to them having a positive----

Q So you looked at events that had happened to them----

A Yes.

Q Places they had been----

A Were they in surgery? Were they at home? Were they-- where were they staying? What procedures did they have done in and around the positive blood culture?

Q But this is the first time you'd done a root cause analysis?

A Oh, yes.

Q Right. Are you aware of whether that became a practice in subsequent IMTs, of doing root cause analysis?

A So, one of the decisions from this IMT, I think it was, was that that would happen for every patient going forward.

Q So it's a new thing, in a sense?

A It was a new thing and I think we also used it for PICU patients. I can't be sure, but I think it was something that was certainly recommended in the Oversight Board recommendations, I think.

Q Well, we're going to come back to those in a moment.

A Okay.

Q But before we do that, I have two hypotheses to put to you. They're slightly long, but I want to see how you react to both of them. So, the first suggestion is this, is that before the change of chair, there was an unreasonable interest in drains and chilled beams and that the fitting of point-of-use filters and the chlorine dioxide had removed the main or principal risk to patients, and the pattern of infection was simply comparable to the old hospital. What do you think of that as a sort of----

THE CHAIR: Can I just make sure that I've got that first hypothesis?

Q Yes, so that-- was that----

THE CHAIR: Before the change of chair----

Q -- chair, there was an unreasonable interest in drains and chilled beams, and that, in fact, the fitting of the point-of-use filters and the chlorine dioxide system had removed the main or principal risk to patients, and that, in any event, patterns of infection were comparable to the old hospital. (To the witness) Some people have expressed that sort of view of what was going on before the change of chair. How do you respond to that as a sort of view of what was going on?

A I don't think it was unreasonable to continue to include those hypotheses with regard to drains, water, chilled beams, taps. I think that was reasonable. I can't comment on-- I don't feel I can comment on whether I feel the attention to those was what you described as----

Q Unreasonable.

A Unreasonable. I think you would expect that it was included in any hypothesis for an IMT, given the history.

Q So the alternative position----

THE CHAIR: Can I just be clear about the witness's response?

Q Yes, of course.

THE CHAIR: First of all, the short answer is-- what I think I took from your answer was that you did not think it unreasonable to consider drains, chilled beam units as a possible source of----

A Gram-negative organisms.

THE CHAIR: Gram-negative, and that was in a context where, at the IMTs, it was generally accepted there had been a degree of exceedance of gram-negative infections. Is that fair or not fair?

A That was the reason we were having the IMTs.

THE CHAIR: Right.

Q The second position is sort of-- takes an opposite perspective and suggests that, after the change of chair, there was a change towards removing chilled beams from the hypothesis and working on the basis that what was being seen was a normal background rate of infections, particularly for gram-negative infections. What do you think of that view?

A I'm aware of the reports that suggested that it was a "normal background." However, we had history of incidents in the ward with this group of patients and you would want to include previous sources in any hypothesis for a new incident. You wouldn't necessarily just focus on those, and I think that's why I was brought in to do the root cause analysis: to understand if there were any other factors, so to include-- and that on the back of cleaning chilled beams, there being a system in place to reduce the risk

from chilled beans once it had been recognised, drain cleaning and point-of-use filters.

So, with that in mind and having-- not confidence, that's the wrong word, but knowing that you have these systems in place and that those systems are actually taking place, you might want to broaden your hypothesis because it might be something new and, as an IMT, you would want to consider that.

Q Okay. Now----

THE CHAIR: Again, can I-- I'm sorry, Mr Mackintosh.

Q No, of course.

THE CHAIR: Your second hypothesis included the proposition that the consensus-- or, tell me if I'm wrong, the consensus in the IMTs was there was not, in fact----

Q No, I didn't mention a consensus. I was just saying there was a change towards removing chilled beams as a hypothesis and a move to accept what was being seen as part of a normal background rate of infections.

THE CHAIR: Right. Well, you may have to educate me because I'm seeing that as a change from-- proceeding on the basis that there's an exceedance, which we're trying to investigate, to a situation where not only we're no longer interested in chilled beams but, in fact, there is not an exceedance.

Q Indeed. That's the question I'm putting to the witness. Those two things combined is that alternative hypothesis, that after the change of chair, not only do chilled beams receive less emphasis or they are removed from the hypothesis, that at the same time and perhaps tied into it, there's a view that what is happening is part of a normal background rate of infections. (To the witness) I think you've answered the chilled beams bit of that.

A Okay.

Q But I don't think you've answered whether there was either an acceptance or a recognition – I'm not sure what the right word is – of the idea that this was a normal background rate of infections in the subsequent IMTs. If you can't answer, that's fine, too, but I’d be interested to get your views.

A I don't think there was a general acceptance that, "This is normal. We can close down this IMT." I think there was an acceptance that, "We've done what we can and we are continuing to do-- put measures in place for the chilled beams and for the drains and for the water, but let's look wider." I think there is a background to that patient group and that's my experience over many years as a paediatric nurse. I think there is a background, but I also think we had incidents of higher rates, just

clusters, if you like, that had to be considered.

Q Right.

THE CHAIR: I think it's quite clear what your answer means, but can I just absolutely make sure that I'm following it?

A Yes.

THE CHAIR: When you say, "Yes, there is a background," what I'm understanding from that answer is that one would expect a certain level of infections in this particular patient population because of their vulnerabilities, but both before and after the change of chair, there was at least a concern that the experience was of a rate of infection which was higher than what you might anticipate by reason of what you've described as "background." Have I got that right?

A That's my understanding, yes.

THE CHAIR: That's your understanding.

Q Thank you. I only have one more question before I move on to the Oversight Board reports and things, which is-- this is now August '19, and what we don't know, of course, is we're four months from the start of the pandemic.

I think it's probably important that this Inquiry understands how the pandemic affected the children's hospital in simple numbers terms and the nature of infection control. So, just in numbers terms-- we can get actual numbers from the Health Board, but in terms of the way the hospital is being run, are the number of patients dropping off or is it staying the same as the pandemic starts in February/March 2020?

A Do you mean number of patients----

Q In the children's hospital?

A In the children's hospital----

Q Over the next year, due to COVID, yes.

A Oh.

Q Does it get emptier, is what I'm trying to wonder, or does it stay the same? Does it get more full?

A They were busy because they're always busy. They didn't see as many COVID, is my understanding, and that COVID didn't impact on children the way it did in adults.

Q Right.

A But winter at SV, the hospital would always be-- have a higher incidence of patients in the winter months, and I'm not aware that that changed significantly, but I might be wrong in that.

Q Right. The other one is a bit more difficult and it may not be possible to answer it: from the point of view of an Infection Prevention and Control team – and I'm talking about a children's hospital

here; I'm not talking about an adult hospital – did the challenges of running an Infection Prevention and Control team in the hospital, when you talked to your lead nurse-- did those change in any particular way during the COVID pandemic beyond the need to tackle COVID as a risk? Did the number of people in the wards reduce, for example?

A I don't think I have the information to answer that.

Q Okay. Well, our final question is to turn to the Oversight Board case notice review. Now, in your statement, we asked you-- well, before we do that, is-- Dr Inkster has explained in her statement that before she spoke to the independent review, you gave her a folder of documents and encouraged her to read it before she spoke to the review. Is that correct?

A Does she mean the folder with the plans for the hospital that had accumulated in the office?

Q I think it contained emails, a lot of emails.

A I'm not sure about that. It was a folder of----

Q But was it a folder you gave to her before the independent review?

A It probably was.

Q Right, okay. Well, that's probably enough for me, then. Right. Now, in your statement, we asked you-- if we could go to your statement, please, at page 462. We asked you, perhaps foolishly, at 34 what recommendations for improvements came out of the review, and you appear to have cut-and-pasted in the review's recommendations.

I think the question we meant to ask you and we probably should have asked you was this: before you retired in March '22 – so that's a year after the case notes review is published, the Oversight Board report is published – in that year, your final year, was there a process running to implement the recommendations of these three reviews?

A That's my understanding, yes.

Q Were you involved in that process in any way?

A I don't recall being involved. I was involved in the water technical groups at some point, the different water technical groups. I may have been as I stepped in and out, but I don't recall.

Q Are you aware of there being a working group or something set up?

A Yes.

Q And what was that called?

A They are an Oversight or----

Q Could it have been called the ARG? That ring a bell?

A No. It doesn't ring a bell, sorry.

Q No? Okay, but you weren't involved?

A I don't remember being

involved. I think Angela Wallace----

Q We'll ask Angela Wallace.

A -- was in the Board at that point. Sorry, I can't remember.

Q No. So, the final thing I want to press you on is on question 35 of your statement, which is after all these bits we forced you to put in, which is on page 470. You discuss at the top half of the page-- We ask you about staffing levels, and within the answer, five lines to the bottom of the answer, you say:

> "I do recall when all the consultant microbiologists with infection control sessions at the hospital resigned at the same time. This did cause a gap in the service immediately."

When was this?

A I don't recall the date.

Q Well, let's break it down by your career.

A I do remember the day, though.

Q Was it before you stopped being the lead IPC?

A No.

Q In March '17 or just after that?

A I wasn't-- I don't think I was a lead IPC, I don't think. Sorry, I can't remember.

Q Did anyone ever explain to you why these doctors resigned their sessions?

A I was made aware after that there were concerns about the safety of patients in the Queen Elizabeth.

Q But you weren't involved in their resignation?

A It----

Q They didn't discuss it with you in advance or anything like that?

A No.

Q No. In terms of the working relationship between infection control nurses and microbiologists over, broadly, the last decade, it's been suggested that at times after 2011, at times there was difficult working relationships between the microbiologists and some of the infection control nurses, and there was a sort of slight separation of approach going on. Does that ring a bell with you, or anything you'd like to comment about that?

A I can't comment on individual relationships between people. I think infection control nurses carry on with the day-to-day work and they are full-time employed to undertake the roles of an infection control nurse within the team. Sorry, what was your question?

Q My question was, were you aware of any sort of slight tension between microbiologists on one side and infection control nurses-- senior nurses in the period post 2011 about who's in charge and who makes decisions and

things like that?

A I think there was comments made that, compared to other Infection Control teams, that in GGC we, the nurses, seemed to get on with the day-to-day and make their own decisions and they were managed by the Associate Nurse Director, where others, I think, felt that the infection control doctors should be in charge of the nurses.

Q Because there's this whole concept of what is a nurse-led service in the health service. Is Infection Control a nurse-led service, and if it is, what would you mean by that?

A I don't think it is a nurse-led service. We have an Infection Control Manager who is not necessarily a nurse.

Q And, indeed, may not even be a doctor either?

A Or a doctor. Could be a healthcare scientist. It could be-- it could be a clinical person but who doesn't necessarily have to have the appropriate experience and qualifications to be a manager.

Q It's also been suggested, in fact, by one of the Inquiry's experts that there would be merit in there being clearly a lead Infection Control clinician with experience – either a doctor or a nurse – for each hospital rather than for different parts of a hospital or different sectors of a large health board. It seems

very obvious in what we've been investigating that there was no infection control doctor or, indeed, nurse solely responsible for every aspect of what happened on the Queen Elizabeth site. It was part of a sector or it was part of a particular service like your children's service. How would you comment to that suggestion that it would have been better if there had been a lead infection control doctor and a lead infection control nurse just for the hospital?

A So there was an infection control doctor and a lead infection control nurse for each sector, and the South Sector was the Queen Elizabeth.

Q Did it have anything else in it at the time?

A I think, by that time, the Victoria Infirmary had moved across and closed, so the Victoria Infirmary in Mearnskirk had closed, Mansion House had closed. So I don't think there were any other.

Q Do you think it was effectively a lead for the site, in reality?

A So I think there was an infection control doctor for the site.

Q Yes.

A We had a term called lead infection control doctor, who sat with the senior management team because there were five Infection Control teams across Glasgow.

Q So the lead covered the whole of the Health Board area?

A Yes.

Q So, in sequence, who was the lead for the sector when you were lead for the children's hospital?

A So, before I came, it was Professor Williams who was the lead infection control doctor for the Board and the infection control doctor for the paediatric-- Women and Children’s Service, and then Dr Inkster took over as the lead for the Board and the lead for the paediatric service.

Q Right, and then who was who succeeded her as lead for the Board?

A Linda Bagrade.

Q Then who succeeded Professor Williams as lead for the paediatrics?

A Dr Inkster.

Q Who succeeded Dr Inkster as lead for paediatrics?

A I think it's-- and you're talking about now----

Q Well, no, just before you retired because----

A So I think it was a combination of Dr Bagrade and Peppy Valyraki, I think.

Q So, the final question, I suppose, before we have a break to see if my colleagues have any questions I haven't asked, is, looking back on this – obviously, you're now retired – and focusing on management structures as opposed to day-to-day decisions, is there any way you would see that the management of this hospital and these units that we've been talking about, in terms of Infection Prevention and Control, could have been done better in that – what is it now? – nearly 10 years since it was about to open?

A Do you mean anything specifically?

Q Yes, is there anything you've got in mind? Because this is a part of the Inquiry where we make recommendations. Is there anything you think should be done better?

A So, I think it was necessary to have a senior management team because the Board is very large and, as I said, has five sectors covering regional services, and it is, I think, one-third of NHS in Scotland, the Board. So that structure, I think, was important. I think because it was a single health board, it was important that each of the five sectors had the same approach to infection control.

Given that some of the hospitals didn't have the more at-risk patient groups, that withstanding, I think it was important that we had a governance route for all reporting of infection control up through the senior Infection Control team,

up to governance routes, up to the Board. So I think that's really important and I also think it's important that systems and processes are replicated in the ways of reporting, governance and the ways that the infection control nurses work.

Q That's helpful, but is there anything you would change?

A Is there anything-- I think, in terms of the hospital, to have a, for the lifetime of the hospital, plan to hand over, having an Infection Control Team dedicated to that. I think that would be important.

Q So there should have been an Infection Control team dedicated to handover?

A Throughout.

Q Throughout.

A I think it's understandable that there were periods when the hospital was under construction where an Infection Control team wouldn't be used, but I still think it's important for continuity, and that would be something I think----

Q So the idea is you'd set up the Infection Control team before you build the hospital? You keep them in place, you have them there, they grow once it opens, but it's the same people who take it through the journey?

A Before planning, yes, and all the way through.

Q Now, I think, my Lord, I think

I've asked the questions I planned to ask, but I wonder if we might have our traditional 10-minute break so I can see if any of my colleagues want me to ask any more?

THE CHAIR: Mm-hmm. Yes, we'll do that. Just on that last point, Ms Joannidis, you were asked if you had any recommendations, and your final recommendation, or your recommendation, was to have a dedicated Infection Prevention and Control team before construction.

A At planning.

THE CHAIR: Perhaps during----

A Inception. At the idea, "We're going to build a new hospital."

THE CHAIR: Right, at the very beginning of the project. Same team remains in place until completion of handover?

A Completion to the satisfaction of everyone, yes.

THE CHAIR: Right.

Q I suppose the question that follows from that is, did that happen? Because you were involved at various points. We went through the emails.

A So, I wasn't on the project team, but I was asked to attend, as I said in my statement.

Q Yes, and you were-- at various points, you were involved in meetings and things.

A Then Annette Rankin was involved because she became the nurse consultant in GGC, and then we appointed Jackie Barmanroy as the nurse consultant on the project full-time.

Q Yes.

A We became part of the project team and then----

Q But there wasn't a single team? There was----

A No.

Q There was this Professor Williams, who was the lead ICD, and then there's the nursing team you've just described, but there wasn't a single team combining nurses and doctors together?

A I think that might not be necessary for a small build.

Q Yes.

A But this was like a small city. It was huge.

Q Okay. Well, thank you very much. I think we're going to probably break for a moment, and what we have to do is wait for agents who might have people viewing this remotely, and we'll take a few minutes to just see what's going on.

A Thank you.

THE CHAIR: All right. We'll do precisely as Mr Mackintosh suggests, but again, just for my notes, did you Jackie Stewart became the----

A Barmanroy.

THE CHAIR: Barman----

A Stewart/Barmanroy.

THE CHAIR: All right. It was just whether----

Q It was Jackie Barmanroy, my Lord.

A She was Stewart and----

Q Jackie Stewart, then Jackie Barmanroy. It's the same person.

THE CHAIR: Thank you. If I could ask you to go back to the witness room, we might take about 10 minutes.

A Thank you.

(Short break)

Q I'm pleased to report I have no questions that my colleagues in the room would like me to ask.

THE CHAIR: Right, well, we'll ask Ms Joannidis to join us.

(The witness entered the room)

Thank you, Ms Joannidis. I understand there's no further questions. Therefore, you're free to go, but before you do go, can I say thank you both for your attendance here today giving evidence but also for the work that went into preparing for that evidence, preparing your witness statement and

considering documents. I'm very grateful for that. Thank you, and you're now free to go.

A Thank you.

(The witness withdrew)

MR MACKINTOSH: My Lord, the next witness will be on Tuesday. It will be Annette Rankin.

THE CHAIR: All right. In that case, can I wish you a good weekend? We will hope to see each other on Tuesday.

(Session ends)

16:01