SCOTTISH HOSPITALS INQUIRY

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Hearing Commencing
19 August 2024

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24 September 2024
Dr Alan Mathers

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10:05

THE CHAIR: Good morning. Now, Mr Connal, we have Dr Mathers as our witness this morning.

MR CONNAL: That's correct, my Lord, Dr Alan Mathers.

THE CHAIR: Good morning, Dr Mathers. Now, as you understand, you're about to be asked questions by Mr Connal, but, first of all, I understand you're prepared to affirm?

THE WITNESS: Yes.

Dr Alan Mathers
Affirmed

THE CHAIR: Thank you, Dr Mathers. Now, I don't know how long your evidence will take. We've scheduled the morning. It may not take that long. We will take a coffee break at about half past eleven but if at any stage you want to take a break for whatever reason, give me an indication and we can take a break.

THE WITNESS: Thank you.

THE CHAIR: Now, Mr Connal?

Questioned by Mr Connal

Q Thank you, my Lord. Now, Dr Mathers, you produced a witness statement in this case, and I think you've indicated a very minor alteration to the answer, just for the record, to question 49(h), where the word "not" has been omitted before the words "clearly established". Is that correct?

A That is correct.

Q But, otherwise, do I take it you're content to adopt your witness statement as your evidence to this Inquiry?

A Absolutely.

Q Thank you very much. Now, one or two general questions, first of all, if I may. You're a consultant obstetrician, and gynaecologist, and you say you're the chief of medicine for women and children. That sounds a very grand title. Can you tell us what that involves?

A Yes, I didn't choose it. They used to be called associate medical directors. So, essentially, it involves being in charge of the medical team and the governance of the children's hospital and the maternity and gynaecology services for Greater Glasgow and Clyde Health Board. So there's a role-- part of the role is managerial, dealing with job planning, general administration of doctors' lives, professional lives, including the junior doctors and integrating that with the running of the hospital with a directorate team, so that things like

clinical governance, which is a broad term for everything to do with audit, quality improvement, dealing with emergent problems, managing the normal processes of reviewing morbidity, mortality and such like, and endless numbers of other things that I think I've put in my CV just as an example of what is a varied life. Parallel to that, I have a clinical commitment now entirely in obstetrics, which involves on-call and obstetrics surgery and ultrasound and things like that.

Q Where does this role sit in the, sort of, board hierarchy?

A So, the top is the-- as far as the medical management, is the Board medical director. Then there is the deputy medical director, acute medical director. I can put names to these, if they're helpful.

Q No, no. That's all right. Just give us a flavour of where you are.

A And then there are-- and then there's the chief of medicines. There are six of them, and then we go to clinical directors and then lead clinicians. So, midpoint, I suppose.

Q Thank you. Now, you-- am I right in thinking that your first contact with the-- what we're calling the New Hospital or the Queen Elizabeth Hospital, and I'm using that as the short version for the whole thing, including the children's part----

A Yeah, yeah.

Q -- was in June 2015. Is that right?

A Yes, so, to be clear, as a clinical director of obstetrics and gynaecology, I was part of the women's and children's directorate in the old hospital, the old Yorkhill hospital, as far as meetings go, although my responsibilities were for the obstetrics and gynaecology and sometimes the neonatology services. So, my contact with-- I was not involved in the design and build of the children's hospital, and so it was when the children's hospital opened that I started as chief of medicine.

Q And I think initially you continued in a consultant role in the Glasgow Royal Infirmary for a short period?

A For three months, I remained as the clinical director of obstetrics and gynaecology because that's how long it takes to find a replacement.

Q Again, I'll ask you this now because it crops up on a number of occasions in your statement, is it fair to say you don't claim any specific special knowledge in infection control

matters?

A Absolutely none.

Q Thank you very much. Now, I'm going to take you to your witness statement, in part so we can, sort of, work our way through events, and it should come up on the screen for you as well. So, if we can go to page five, I just want to touch very briefly on the large answer in the second part of that page, where you were asked, you know, had you met the IPC team, and you'd said, "Well, I don't ever remember meeting a team as such," and then about halfway down that long paragraph, you said you were aware that there were some internal issues focused around Professor Williams, but you didn't really have details of that. Is that fair?

A Absolutely.

Q And you didn't need to do anything about it because you were told something was in train?

A Yes.

Q Do you know what that was?

A I suppose what I was made aware of-- So, I had a few meetings with Professor Williams, I had never encountered him beforehand, and they were related to the-- they were related to the nature of readiness for the bone marrow

transplant service**,** and it just happened to be that I was told that there were some difficulties in the team. Now, I don't think that was from him. In fact, I'm sure it was not from him, and that there was some form of HR process, and that was-- as far as I was concerned, I was looking for his technical expertise with regards to the specifics of whether at some point in time we had a go or no-go situation with regards to therapy.

Q I suspect we'll come back to that later in your statement, this go or no-go dilemma, if I can call it that for the moment. Just very briefly, I think you were asked about various things, but if we go over to page 8 of your statement, I think you say at the top of that page that you were aware of some of the issues as, of course, they unrolled in the Children's Hospital, cleaning, ward closures, all kinds of issues, and then I think in fairness to you, I want to take you to what you say in the other section of that page, whereby you say that it's really impossible to underestimate the impact on everybody concerned of what was going on. Is that a comment you're keen to associate yourself with?

A Absolutely. I think one of the most difficult things in medicine is uncertainty and while we hide behind

the fact that we often believe things are more certain than they are, the reality is that you have to live within a very complex system, and change is quite difficult for most people, but the fact that the pillars of what you are practicing under seem to be uncertain is a very difficult thing to deal with.

Q If I might just ask you not to let your voice fall away.

A Oh, sorry.

Q Just so his Lordship can pick it up clearly. That would be helpful to everybody, I think. And I think you say near the foot of that page that-- you say this:

> "There was a universal desire to find an answer, engage in a collegiate manner, and intelligently look at potential short and long-term mitigations, some meetings where people robustly challenged information given, but always in a respectful way."

And then, you go on to point out that you knew some of the things that were going on, as it were, secondhand, because other people were mentioning the hospital to you. Is that fair?

A Absolutely.

Q Thank you very much. Now, can we go on to page 11, please? I think you were asked in previous sections about a Legionella report produced by a firm called DMA Canyon, and you said you have no knowledge of that at all. Is that correct?

A Correct, and until you-- the word Legionella, because I have not seen this report, so that is new to me if it was about Legionella.

Q Now, the context, so you're not confused at all over this, is that there should be what's called an L8 assessment to look at the risks of Legionella and so on in the water system at particular times, and this is a report that dealt with a number of these issues, but you had no knowledge of that at all.

A No, not at all. My familiarity with Legionella is simply because the base hospital that I work in, Glasgow Royal Infirmary, had an issue with it decades ago.

Q Thank you. Anyway, in page 11, we move from having asked you questions about water, where you're not able to help, to questions about ventilation, and your answer there is you really didn't have any knowledge of any issues until somebody raised the question of ventilation as a potential issue in a number of the incidents that were

occurring. Is that correct?

A Yes. Broadly, there were discussions about-- I suppose it depends on how you define ventilation. I was aware that there were issues with regards to negative and positive pressure in rooms, which is local ventilation, but clearly that air has to go somewhere, and I'm very aware that like any big building, there is ventilation, but that's not something that I think doctors tend to be knowledgeable about. Well, not doctors like me, clearly.

Q Right. So, you were aware of issues about pressure, which would be important for people like bone marrow transplant patients----

A Yes.

Q -- but this is not an area of your expertise.

A Not at all.

Q And you are asked a general question, which I think also I should put to you, on page 11. You're aware lots of things happened in the Children's Hospital, obviously, over the period that we're looking at, and you're asked, "Is it all resolved now?" I think, to paraphrase a question near the foot of page 11, and you say, well, you've nothing to suggest otherwise. Is that fair?

A Absolutely. The hospital functions to a very high level and we have monitoring in place that is all green-lit.

Q Sorry?

A We have monitoring in place that currently is green-lit. There will be times where issues will arise which are addressed as part of that monitoring process.

Q But at the moment you say it's "green-lit"----

A Yes.

Q -- presumably, meaning that everything seems to be okay.

A Yes.

Q I'd like to ask you, I think, just probably one question about-- perhaps more than one, about page 12. I'm just trying to get a timeline here because in the answer that takes up most of page 12, you would describe one meeting that involved contractors and representatives of the microbiology team, Dr Hood and Dr Jones, who are people you'd met previously. Now-- And then there's a discussion about what the meeting was about, which seemed to be some difference over specification for the Beatson Unit in the new hospital. Now, can you remember, was this before the new hospital opened, or was this after it opened when issues arose? Are you able to help us at all?

A So, I can help because in the supporting material that was sent to me, there is a minute of this meeting. When I wrote this statement I was not sure if I-- what the situation was and that minute-- sorry, I can't remember the date offhand, but there is a minute. It was held at the Queen Mother's hospital boardroom, and, again, as a new boy I had not appreciated that the people at that meeting appeared to be not the contractors but the Estates-- Estates representatives from the hospital, and the microbiologists, and the point of that meeting related to interpretation of the standards required for the kind of facility you need to do bone marrow transplant and manage severely immunocompromised patients.

Q And had you any technical knowledge of the things they were discussing?

A Not at all.

Q Because, basically, you described the meeting as coming to something of an impasse and you assumed it went up the chain somewhere.

A Yes, because the thrust of the issue as far as I could see-- and, you know, while I was a new boy to this level of discussion at one level, I have been involved in the design and build of the Princess Royal Maternity and other hospital projects, so the landscape is not unknown to me. The issue was that-- and I preface this by saying this is-- I have benefited from reading the subsequent information about it, because, from recollection, it was as much about the facility in the new hospital in the Queen Elizabeth Hospital's adult sector for adult bone marrow transplant care because the Beatson, where that work was done, I think, the retrospective maybe decision was to move that to the Queen Elizabeth University Hospital, I think to address a number of issues that the Beatson did not have in its basic design, including an adult intensive care or high dependency-- Well, I'm not sure if it has a high dependency unit, but it didn't have an adult intensive care unit.

But, obviously, the nature of bone marrow transplant and mitigations in the protection of patients in the Children's Hospital are similar, in terms of needing the appropriate ventilation, the appropriate barriers to infection, etc., etc.

Q I think I'm right in saying that there were issues raised about the Children's Hospital and about the--let me just call it, the ventilation arrangements there in Ward 2A, which

was the equivalent to the Beatson Ward.

A Yes, and much of it related to pressure gradients. Now, I was in a position that I could ask staff "lah-di" questions because I consider myself to have quite a logical brain, and so sometimes when people talked about positive and negative pressure gradients, I always requested to know, positive to what and negative to what, because these gradients are different between lobbies. So there's a treatment space, there's a lobby where there's a barrier of protection, and then there's the outside, and because of other infection issues that I've come across over the years, those negative pressure and positive pressure issues have come up.

As an illustration, not long after the Princess Royal Maternity Hospital opened, we had to make a hole in the pristine outside wall to manage a potential patient who had a multi-resistant tuberculosis who happened to be pregnant. It turned out that didn't become the case, but that was the first time I ever really thought about ventilation in a hospital setting in that way, clinically.

Q And I think on page 14 of your witness statement you say, and this comes back to your earlier answer about, it wasn't just a simple question of, "Let's talk about the ventilation." You were talking about whether rooms were fit for purpose, and you go on to mention things that you were learning about which weren't particularly things you were expert in at that time. Is that correct?

A Correct, and it was-- there was also a fact that there were a number of rooms. So, at full capacity, there might be eight bone marrow transplant cases, but, you know, the question was whether or not-- how many rooms were actually available and fit for purpose to start cases. Because there were people lined up needing to be prepped, and the process of bone marrow transplant, which I am not an expert in, is a lot more complicated than just doing the transplant. There's a lot of preparation work and patient time before the event takes place.

Q You mentioned in your answer on page 14, that one of the questions was the risk of fungal infections to which immunocompromised patients may be particularly vulnerable.

A Yes.

Q And you say you remember these concerns being illustrated by Dr Inkster at a slightly

different meeting.

A Yes, and I suppose over the years of this, we moved from concerns about fungal infections, which are a real and present issue with immunocompromised patients, and then we moved onto, that day, obviously, air transmission as a significant issue, and then it moved on to issues with water.

Q Thank you. Now, on page 15, you make the point, which I think you've already mentioned, that one of the real issues at that point was, "Were we ready to take bone marrow transplant patients?" And there's a meeting reference at the bottom of page 15, which I needn't trouble you with.

Can I just go to page 16 of your witness statement and ask you briefly to look at bundle 6, at page 26, please? Now, I think-- as usual, I'm reading from the bottom of an email chain in the way that these things operate. This is you getting in touch, asking about prophylaxis. Is that right?

A Just if you bear with me while I read this. So, the first thing is, there was a courtesy in the fact that the meeting had taken place and Dr Inkster had made a useful contribution, which is why I start with a thank you. I am reflecting the fact that, at one level, we have seriously ill people who need to be treated versus what is the safety of the system that they are moving into or going to be treated in, and with all these things, what kind of mitigation could be done to make that safer?

Now, the context of this was that the Children's Hospital have-- the children that have this-- these kind of conditions need to have access to a whole range of specialty areas that are only provided in a children's hospital environment, so, from the point of view of paediatric intensive care, line management, surgeons, because children, by their very nature, there will be some of these children that will have many other needs beyond simply being affected by leukaemia or some other process like that. So, from that point of view, there wasn't an option for saying, "Well, we'll treat them somewhere else," unless it was a children's hospital, and that's where mitigations had to be considered. And the reality was that when people were looking to see what similar units in the country and internationally did with regards to various mitigations, there wasn't a standard.

Q So, we can perhaps just see Teresa Inkster's reply to your email if we go back to the previous

page, 25, to see the start of it. Yes, where she's saying, "Thanks" on a difficult risk assessment, and then going on to 26:

> "While I cannot comment on haematological risk, from my perspective, based on available evidence as discussed this morning, I'm unable to state that the rooms are microbiologically safe."

And then, she says, "Antifungal prophylaxis not 100 per cent effective" and makes one or two other comments. So, you seem to be faced with the start of a bit of a dilemma, is that right, that you've got information that the rooms aren't completely safe, but you're very keen to see whether patients can be treated that need treated?

A So, our team were very-- I just have to be very clear that much as I like, by nature, to be in charge of things, the reality is that my expertise here was only in the sense that I deal with a lot of issues, and have done over 30 years of medical management, where there are disparate views and some form of consensus. I'm not keen on-- Well, I certainly am not-- I wouldn't be proposing dangerous compromise just to get something done because there are always options of having people treated somewhere else but I think, you know, a fair assessment of both of these emails demonstrate two clinicians who-- one of whom describes their level of expertise, and I was reflecting the other side of a view, fully appreciating that nothing is 100 per cent effective when it comes to prophylaxis. You know, every patient I've operated on for the last about 20 or 30 years has had antibiotic prophylaxis. It doesn't mean that some of them don't get infected.

Q So, perhaps see a little more of that context if we move onto page 18 of your witness statement where, at the top of the page, you say:

> "There was an appreciation that fungal infections were a risk to anyone whose immune system was severely compromised and the risks and the benefits were debated at length in a constructive and collegiate manner."

And you were asked, "What view did you take of Dr Inkster's concerns?" and you say:

> "She's an expert and her concerns were clearly articulated and the final decision had to

balance multiple risks."

I suppose the question might be this: you're in a brand-new hospital which has been claimed as, you know, the big new super-hospital, whatever phrase one wants to take from the tabloids, and here you are having to debate whether rooms in that hospital are actually safe enough, weighing everything up, to do critical operations. That wouldn't be a satisfactory situation, would it, in your view?

A Not at all. I suppose my experience when-- of using new hospital facilities is that it is not unheard of them to have snagging issues, just like with any building, to find that operationally working in that environment is different than might have appeared in walkthroughs, whether they're virtual or whether they are going through plans, etc., and it gets back to the point of the earlier meeting we were talking about where things like, "How do you pressurise a room? How do you seal an environment? How do you avoid leaks, moisture?" endless numbers of things, and in the context of the hospital site, continued building works and the fact that when you go into a hospital, you don't walk through it--

Probably it's old fashioned now but, you know, when one used to go to swimming pools, you had to walk through a disinfectant before you went into the swimming pool. We don't do that with hospitals, we have barriers to try and prevent people carrying in infections, and they start at the front door and carry on all the way through, and these rooms have to be as tight against infection as possible, because we meet fungi all the time and the vast majority of people might get athlete's foot but an invasive fungus inside your body is a very serious problem because we don't have-- and I'm at risk of straying into an area that I am not an expert in but, at the end of the day, antifungal medication is not remotely as developed as antibiotic-- antibacterial medication.

Q So, to try and sum it up, if the rooms were to function in such a way as to be completely safe for use, all of these things had to be taken care of: checking for leaks, making sure the rooms are sealed, appropriate pressures and all of that?

A All of that, and the other side of this which you might come to is, how do you actually screen or assess if they remain safe? Because that, certainly as matters evolved, became an issue because different bone marrow transplant services had very different approaches to that. You

know, how regularly do you check the environment? The correlation between finding something and it actually being able to get into a patient seemed to be a very significant issue.

THE CHAIR: Sorry, could you just give me that again? I don't think----

A So, you can find a fungus on a plate, for example, if you're testing the environment-- and, again, this is not my expertise, but you can find a fungus but will it actually-- can it be transferred or will it actually cause invasive disease in the individual patient? Now, the assumption is, if you have essentially wiped out their immune system then you have to be concerned about that but there has to be some form of correlation between what you find in the environment and what you find in the patient, and the two may or may not match.

MR CONNAL: Well, I can understand that last point but, again, if we try and pull this together, if you have a patient whose immune system has essentially been wiped out, you take the most extreme of examples for, say, a bone marrow transplant patient, and you've explained that if they get a fungal infection in their body, it's very serious for the reasons you explained. If you then find evidence of some fungal particles in a room that they're being treated in, that would be at least serious cause for concern, would it?

A Absolutely.

Q Can I just ask this then? You know, having discovered all this was going on, that there were problems with testing, the rooms and so on, did you-- maybe this wasn't your role, please just tell me. Did you attempt any kind of analysis to get to the bottom of why things were as they were?

A Not personally, in terms of an active single action by myself, because, in the context of this, there is a team of people, there are meetings about what the status of the hospital is, and, I think, while it is right that we are absolutely focused on the immunocompromised-- the bone marrow transplant team, the hospital also has dialysis, it has major surgery, it has a neonatal-- you know, the largest neonatal service for Scotland, it has cardiac surgery. All of these areas have to be safe and the pathogens that affect those different groups of people, you know, all involve barriers to infection and water and-- etc.

Q I suppose I might just ask you this, then, as you've identified the fact that a whole range of areas, many of which would be of interest to you in

the capacity that you serve, have to be safe, did finding, let me just call it "issues" in the pediatric bone marrow transplant area give you concern about what might be found more widely?

A So, the reality was things were not being found more widely, as in evidence or monitoring for staphylococcal bacteraemias or catheter-related infections, etc. There wasn't any, outwith what one might expect, changes in that. We were not faced with issues with infection-- infectious pathology beyond what would be considered-- I suppose the shorthand is that other clinical groups were not coming up to me saying, "We have a problem with something that we didn't expect to have in a new hospital", or was outwith the norm from their previous hospital on the Yorkhill site.

Q Can I move on, at least one small step, to a point raised on page 19 of your witness statement where you did two SBARs, which we'll find, if we could have a look at them please, at bundle 4, page 13, and if we just look at these documents, am I right in thinking that the point you're highlighting there is the time-dependent nature of the requirement for bone marrow transplant due to the availability of a donor?

A Yes. So, there was an index case which there was a-- from recollection, a limited time that a donor was going to be available for a case where there were, I think, many-- possibly even years had gone into trying to find a suitable donor. I don't know the specifics of the case but it was very much a narrow window of opportunity and a closing window of opportunity.

Q Now, in the background section of your note, you say that the facilities, that's the facilities at the new hospital bone marrow transplant area, are at least as good as the Royal Hospital for Sick Children and believed to be built to a higher spec. What did you base your statement on that they were built to a higher spec than Yorkhill?

A So, on the basis that the Yorkhill facility-- This is from those who worked in the department and my knowledge of the Yorkhill Hospital. So, from that point of view, the specifications for a new build had taken into account as you would-- or I believe took into account changes in the specifications that one would have for a facility that was in a brand-new hospital as opposed to one that was built in the 1960s or '70s.

Q So, this is something that

you understood. It wasn't something that somebody had demonstrated to you or produced schematics for or anything.

A No, that information was presented to me by, no doubt, multiple sources, in terms of not just the specifications of the rooms but also the clinical environment they were in. You know, the clinical system around them, for example, hygiene (inaudible)----

Q You realise why I'm asking this, Dr Mathers, because we know that ultimately the ventilation system in Ward 2A was, shall we say, radically redone.

A Absolutely.

Q If we just scroll down just so we see the remainder of this, and then you talk about fungal testing, a question whether complete elimination of growth is a noble aspiration, short-term solutions possible but, on the other side of the coin, there's a pressing need to treat a child and quite difficult to get the child dealt with anywhere else. In fairness to you, about a couple of paragraphs from the bottom of that main situation and background section, you're saying there's a reputational media and related risk, "I note this but my primary consideration is the balance of risks for the child." Is that right?

A Always. The patient comes first.

Q And then you say, well, your view is, subject to Brenda, that would be Brenda Gibson, the Professor Gibson that was in charge of that unit, I think, and Craig Williams, the lead infection control doctor, if they concur, you would support treatment as a balanced decision. Is that right?

A Yes.

Q And then you go on in the second part, and I don't think we need to read through it, to say basically there are other cases coming down the line that are going to need treatment as well.

A Yes, so, that first SBAR reflects the fact that we had a time window for this particular child and a decision had to be made about whether or not the facility was able to treat that child or a decision about having that child treated elsewhere. I considered that not to be my role to make that call because there was so much else that I now know I didn't know.

Q But, at the time, you felt that was a call that had to be made by somebody above your paygrade, effectively?

A Yes.

Q And I think you say in

your witness statement-- and we can leave the document, thank you, page 20 of your witness statement that the Board medical director and, you expect, the chief operating officer or chief executive then would have made that decision on what to do. It had to go up to the top.

A Yes, because ultimately that is the risk, making-- those are the individuals who would be ultimately responsible for the consequentials.

Q Thank you. Well, let's just leave that for the moment.

THE CHAIR: Before we----

MR CONNAL: Sorry.

THE CHAIR: Before we do that, just so that-- can I check that I'm following? Looking at the first SBAR, the area that you're discussing is part of Ward 2A. Is that right?

A Yes.

Q Right. You make reference to possible further Estates work on extraction and ventilation air flow. Did you have anything specific in mind at that point?

A So, at that point, by recollection, we had four rooms that were being ensured to be sealed, proper, adequate-- sorry, I'm struggling with the correct terminology, but essentially the issue----

Q Appropriate?

A Yeah, the appropriate-- Thank you. The appropriate air pressure, negative and positive air pressure variation, and there were other rooms because, fully functioning, we can't do the service on two or four rooms. So there was-- the subsequent issue was how many of these rooms needed to be specced to get up to full function. There was an immediate-- The first SBAR was immediate concerns about a particular patient but it was in the context that there were other patients who were known to be ill and needing this kind of treatment.

THE CHAIR: And, looking at your reference to extraction and ventilation airflow, does that indicate-- or should I take from that that you were aware that there was something inadequate or inappropriate about the air extraction or the airflow?

A So, all I knew about was the positive and negative air pressures rather than wider ventilation issues.

Q Right, and can I take from it that you knew that there was something inadequate about it?

A Well, I knew there was a lot of numbers and there was a lot of discussions about what was the appropriate numbers in numerical terms, you know, in terms of, "Should it be greater than minus 10 or"-- you

know, I'm making up these numbers but, you know, there were reference number points as to what should be in an ideal world. And that's as far as I think my-- you know, my----

THE CHAIR: Well, in the SBAR you mentioned 10 pascals of positive pressure, I think.

A Yes.

Q Where did you get that figure?

A Well, that must have come from those who knew about such things to a degree way beyond----

Q All right.

A I was never given a chart that said, "This is the ideal bone marrow transplant pressure gradients." I have seen in the evidence that was supplied, subsequently before this hearing, that such information was available, but that was new to my eyes and, in some respects, it's not my expertise to be able to make those decisions.

Q No, I understand that, but we see the expression "primary failure to provide a 10 pascal positive airflow." Now, that would suggest to me that, at the time of writing that SBAR, you were aware that 10 pascals of positive pressure was appropriate or desirable----

A Yes.

Q -- for a patient group which included the particular patient that you were discussing but that there had been a failure to supply that in the making provision for Ward 2A. Am I right?

A So, I-- just bear with me while I read this again. (After a pause) So, the point of this was that that was what was required in the rooms and I must have had a concern that there may be an issue if more rooms come online or something else happens that that ceases to be possible as a minimum requirement.

Q Right, so I'm to read that as looking at a possible eventuality, as opposed to a current state of affairs.

A Yes, my primary concern was, what would happen if something happened in those rooms? Because we had to think about, could you transfer a patient from a room that had a critical failure to another room, for example?

Q So, in relation to the four rooms that you've identified, as at the date of the SBAR, you considered that these rooms were achieving 4 pascals of positive pressure?

A That was my understanding.

Q Right.

A I would normally by nature want to have a contingency available.

Q Thank you.

MR CONNAL: I think we'll move on from that particular document, if we can. I'd just like to ask you about incident management team meetings because in the course of your witness statement, you're asked about a lot of these and, in many cases, you say, "Yes, I was there, minutes were taken, I've nothing to add," and you've explained you don't have any particular expertise in infection control. So what were you doing as a regular attender at IMTs? What was the point of you, a fairly senior management person, being there?

A I think it's to represent the medical team interest. There were other members of the medical team-- sorry, the non-microbiological, because obviously the people that are there all have a function and, certainly, I needed to have an idea of what was going on. I think sometimes when you're in a room, you get a much better idea than reading cold minutes.

Q So, you might have clinicians; you might have people from Estates; you might have microbiologists, but you're there really just to see what's happening?

A Well, I take that as part of my role as the lead in clinical governance because clinical governance isn't just a question of making sure that people are starved before theatre or have the right antibiotics or there aren't drug errors. I got a very clear sense of moving through this, of how much effort was being put in by people in Estates, how much extra time that-- The unsung heroes of the health service that people don't really think of, those bacteriology technicians that are doing work out of hours just because there is additional work beyond their already busy remits, the cleaners, the plumbers, all of the people that are working under a new set of parameters and pressures.

At one level, it gave me a wider respect for an organisation that I've worked in for over 40 years and the various components of it. I tend to believe we are all ants in an anthill, and so every bit of it requires other people to do their job. I think that it informed my discussions with other people to know what biofilms were and not the technicalities of taps but the fact that there are endless numbers of dead leg, bits of plumbing, etc., that bacteria can lurk in that were -- Those were areas that I previously had never

thought about, but became relevant when you're dealing with an ongoing infection.

So, I am not a fan of going to meetings for the sake of meetings. I think it is always interesting because, in my position, I'm often the chair or an expert in such things and I thought it was very illuminating being there as neither of those those, which is why I have recorded, in my statement, from that perspective.

Q In many cases, you were in effect on a learning curve, picking up information about problems and issues and challenges that you had not come across?

A Absolutely, and it gave me a-- You know, there were certain things in my career where, for example, neonatal units sometimes get outbreaks of infection but, in general, what happens is you identify the index case, you identify any contamination cases, you identify a source and the problem goes away, and I have many experiences of that happening. This was a very, very, very different situation.

Q Yes, so you're describing your previous experience which was you've got a problem, you look for the source, you identify the source, you apply a fix, whatever that happens to be, and the problem then stops.

A Mm-hmm.

Q And just in a couple of sentences, why was the situation you started to encounter in the new hospital different?

A Because it was constantly moving. So, we started off-- You know, I would say there's three areas here. There is the issue about fungal infection as a potential concern in immunised compromised patients. We then move on to the phase where you have unusual infections, not of a particular type. So, again, you are not coming across the same bacteria, which you might get with an outbreak in an neonatal unit. You might get the exact same bacteria. You can look at the genes. You can look at where it came from, etc. What we had was this evolved situation that was about water. So we moved from fungi and prophylaxis, through to how sealed can a room be, through to a water situation and beyond.

Q And did you say these were-- that the infections were unusual or the organisms were unusual? I wasn't sure whether I picked it up correctly.

A Yes. I bow to the experience of my haemato-oncological and bacteriological colleagues on the

basis that they have a long history. They just know a lot more and they know – as the haemato-oncologist will know – the kind of bacteria that they might come across or fungi that they might come across in the course of 10/20 years. What was happening were some organisms that they had heard of, and others that were completely novel to them.

Q Thank you. Can I ask you about a slightly different question, just because it crops up in the order in which your statement's been written? At page 24, you've been asked-- and you have commented on this elsewhere in your statement, but you're asked about communications and, you know, were the communications effective? And I'm looking now at the bottom of 24(h) and the answer to that and you express a view, which I confess in my reading of the papers for this Inquiry, I haven't come across expressing quite this way before. So I was keen to understand your point. You say your long-standing belief is that, "How effective any communication is can only be determined by the recipient rather than the author." That's a quite interesting insight. Could you tell us why you'd come to that view?

A Very straightforwardly, I'd been involved in patient communications and patient information leaflets and, 30-odd years ago, I came across a thing that I seem to remember is called a Fog Index and it's a readability score, and any professional groups have their own vocabulary, and they can lose other professionals in their-- I mean, put a bunch of bacteriologists in with a bunch of obstetricians and you will find that there will be a lot of words used that the others do not understand.

So, from the point of view of readability scores, that have been present for as long as I have used word processors, you have to pitch information to the public for about a 10-year-old, 11-year-old understanding and, for some particular things, well, I think that simple is always best, without being patronising, and the reality is that we cannot just assume that the recipients-- Because they're a heterogeneous group. There will be-- some of the parents that will be professional class and have high literature and there'll be some working-class people that have got high literary abilities as well, but there will be a range, and it is better to have the basics and then build from the basics. Because those that need the basics, that's the minimum that they need, but

those who enquire for more, for whatever reason, should be afforded that right.

Q So, maybe I'm not understanding it correctly, but it's your point that when you're trying to determine whether whatever it is you've done has been effective and good or bad, or whatever phrase you want to apply to it, you should really look at it from the perspective of the recipient of the information rather than the person who wrote it?

A Yes, and you should encourage feedback on that and if people come up-- and if people say, "Well, what do you actually mean by this?" you haven't really done your job adequately. You may have done the best job you could at the time, but you have not done your job adequately if there are still areas that need to be added to, which is why I think over the-- My college has a lot of patient information leaflets, so, you know, from that point of view, feedback for them is very important but, at the end of day, frequently asked questions are always a useful thing, because you do build up an idea of what the public concerns might be. Sometimes things that worry members of the public are not things that would worry someone like me at all, simply because of a

knowledge base that is not universal.

Q Thank you. I just want to move on, because in terms of chronology, we're getting into 2018, where issues are beginning to emerge more notably, particularly with a water related focus, if I can put it that way, and in fact the first discussion of this starts at the foot of page 24 of your witness statement, when you've been to an IMT, and I won't bother digging out the minutes unless we particularly need them, but we see on page 25 that there was a focus on taps. You say, "Well, what was happening here?" There's a question, and you say, "Well, the taps remain a concern because of a question of biofilm buildup." So biofilm buildup in taps, was that new to you as an issue?

A Yes, the phrase-- I'm familiar that if you leave anything water standing, then you can get material, algae or whatever grow in it, but I was completely unaware of-- I mentioned dead legs earlier on, these extra bits of plumbing that go nowhere as being reservoirs of infection and build-up in taps. I've never really thought about it until that moment, which is why I would ask questions about it, because the types of taps are critical.

By way of anecdote, when I started at the Children's Hospital in

1979 in the old Yorkhill hospital, it had only been open for a few years, the water system in that hospital was-- on the taps, had actually "drinking water" or "do not drink this water" because of engineering problems with that building. Now, I was a junior doctor. I do not know much about why that was the case, but there's nothing ironic about this, but it is an interesting thing that that was a new paediatric hospital at that time, different building regulations, different specifications, but, at the end of the day, it had a tarpaulin over its roof for about five years and it had all sorts of structural problems. So, in some respects, I thought I was revisiting the past.

Q Well, I don't think, in light of your evidence, we need to go into this meeting in detail, but you're asked about halfway down, page 25, "Well, were steps recommended to deal with the issues? Were interventions recommended? If so, were they sufficient?" and you say, "Well, yes, they were, but in retrospect, it's easy to determine that they weren't successful because the problems didn't all go away."

A Correct.

Q And you described later in that page, and I needn't delay on it, you asking a question about, "Well,

what about the old fashioned type of tap instead of the new one?" And then there's a follow-on meeting referred to on page 26, which I think you were probably not at but will have had the minutes. Was that something you were in the habit of doing, if you didn't get to the meeting, you would make sure you got the minutes?

A Because I'd be included, or there'd be emails with-- not maybe as universally as I thought, having looked at the bundle of evidence that I subsequently have seen, but if they had a minute attached to them, then that would be something that I would read.

Q Yes, and a number of issues discussed there. You're asked what your view was about having additional patients with Cupriavidus and Stenotrophomonas, and you were saying, "Well, either the hypothesis we were working to was wrong or the mitigations didn't work." Was that a kind of feature of what was happening in this incident as it progressed, that suggestions were coming up, steps were taken and ultimately problems came back?

A Yes, I would want to dispel any idea that there was some passivity about this. I saw, at all of these meetings and in other

directorate meetings, people that were concerned about what was the next step. So, obviously, there's a degree of testing, doing, analysing what happens next. That quality improvement type process or audit process was a constant, and I'm not sure-- Because of the critical nature of what we are doing in the hospital, I don't think there was any chance that you could just say, "Okay, let's just do something and then let it run for a month or two." In some respects, also, the timeline for some of these infections and the nature of them was such that it was-- it wasn't like an outbreak of Staphylococcus aureus or, you know, a known known. These were-- I think the word "indolent" came up frequently with some of these bacteria. There were just things that were not in the clinical memory as being so prevalent in a short period of time.

Q Yes. One of the names that crops up in the comments on this particular meeting, which was in March 2018, was Professor Gibson, and she's obviously expressed some concerns about pathogens and so on, and you say, "Well, I would defer to her expertise." Did you-- Was she a highly regarded participant in these discussions?

A I could not hold anyone in higher regard than Brenda Gibson, and I think from the point of view of-- her knowledge and her dedication is unparalleled in my experience, but I would wish to dispel any idea that everything rested on her. She was a restless individual from the point-- and remains a restless individual in trying to make sure everything is as good as it can be but-- you know, and that is something that I-- I have known her for a long number of years, and, you know, that's the kind of people you need in medicine that actually are-- She's not an agent provocateur but, you know, they are restless about improvement and that is why-- you know, in some respects, that's why children with leukemias, etc., survive now when they wouldn't have 40 years ago, because of people like that.

Q So, the phrase you use is "restless". That means she's constantly looking to, what, test and challenge? How would you describe what you mean by restless? She's not an agent provocateur, but she's restless.

A She's-- I'm aware I have to go back and maybe talk to her and the word "restless" might-- She is constantly seeking the best for patients. So, she is not someone that

would stop at, “Okay, we’re here. We’re on a plateau. Let’s stay in our comfort zone.” By her academic nature, she is constantly looking for improvement. She is not-- She deals with incredibly sick children in the first place. She doesn’t want them sicker. She wants to get them better and that’s a very high-- That team is not just one individual, but that team have a very good record on getting people that are otherwise doomed, better, and they don’t want bumps in the road, if they possibly can, during that incredibly difficult treatment journey.

Q Thank you. I’m not going to ask you about all the IMT meetings, because the picture is similar, and your responses are similar to many of them but if we just move on a little bit, if we go to page 28. By this time, we’ve come to September of 2018, so we’re still in this period when issues are occurring. You go to an IMT meeting on 19 September, and there’s apparently additional patients presenting with Cupriavidus and Stenotrophomonas, and I was interested in your answer at the top of page 29. You were asked, “Well, what’s your view about patients presenting with these?” And you described that as an “unresolved mystery, resisting mitigation attempts.”

You thought it was all a bit mysterious.

Q Yes, because, as previously said, it tends to be you find a source, you find a mitigation, the problem goes away, and the very nature of this was that a problem was not going away, and clinical concern was not going away, and a lot of things appeared to have been done at that point.

Q You say that Stenotrophomonas was something that some people remembered from encountering in Yorkhill, but Cupriavidus, no one seemed to have encountered. Is that right?

A Well, that’s from my recollection, and the fact that people described “steno” by abbreviation suggests that it’s something that is at least familiar to them, although I’d be the first to say that microbiological terminology is such that having an abbreviated form of complicated bacteria, there is a danger in that because they often have a stem and the second part might be more pathogenic than the second. So I’m not a great fan of truncated medical terms, but that was one that I recall. Now, I don’t think there were many of these cases, but it was just something that seemed to be in the memory of individuals.

Q So, as you say, they were-- they just weren't going away. Whatever was done, they wasn't.

A Well, I think by that time we had probably established that they were a different class of organism in general. So, you're familiar that there are gram-negative, gram-positive bacteria. So, from that point of view, they were-- you know, they were from a group of bacteria that would not be commonly associated with individuals having this treatment.

Q Can I just ask you about another bug? If we go to page 30 of your witness statement, you see about halfway down that page, the word Cryptococcus appears. Now, can I first of all ask you whether you had ever encountered Cryptococcus in a clinical setting prior to going to a meeting about it?

A Only as a medical student or, you know, in general reading about infections and----

Q But not-- Just so we're----

A I'd never come across a case of Cryptococcus, in my experience.

Q So, were you surprised to find yourself going to a meeting to discuss a Cryptococcus infection?

A By that time, I was not

surprised about going to a meeting with yet another new organism.

THE CHAIR: Sorry, yet another----

A New organism. You know, in the sense that Cupriavidus was new to me, when it came up, Cryptococcus was, and while I was aware of the nature of Cryptococcus as far as a species goes, it's-- yes, it was novel.

Q Thank you.

MR CONNAL: I think you then-- there was then some confusion, I think, as to whether AM was you, but AM is not you. AMM is you in some of these minutes, because there was a Dr Marek who was also mentioned. So if anyone's reading the minutes, that clears that up.

Can I ask you about another communications question then, just to leave rare bugs for the moment and excuse the use of such lay terms for much more complex issues? On page 31, you've got a six point-- six bullet point note for consultants to use in communicating with families, and you're saying, "Well, yes"-- I just want to ask you about that. Why is it appropriate for something like that to come from management level if you're communicating with families?

A Well, the directorate

management comprises clinical and non-clinical managers, and what we were presented with were medical issues but also Estates and practical issues, for example, and I don't have that particular communication up, but the----

Q Let's get it up, so we can put some context to your answer. Can we see bundle 5, page 165? It's not fair on you to expect you to comment, particularly after this time. Yes.

A Yes, so from that point of view, in keeping with the previous answers, we're now talking about portable HEPA filters as opposed to them being built into rooms, explaining in a simple way so that there was consistency. Because individual clinicians have their individual patients, so there are relationships there between those people. They will be able to gauge what the understanding of an individual family might be or an individual child might be but, by the same token, having some consistency of the base information is key because we know that people will talk to one another. There's a community that are physically of parents and relatives and there is also an online presence. So, actually, getting that core information seems to be-- well, strikes me as being an essential part of that process.

Q And, for instance, this one says, "As a precaution, some children are being given prophylactic antifungal medication." But that's a precaution arising from, at least, the risk of there being a problem with the air that they're breathing?

A It's a precaution that-- Yes, because that is what prophylaxis is for.

Q Well, then the note doesn't spell that out. It just leaves that to be understood (inaudible).

A Well, remember, this is the information that is going to clinicians.

Q And does that constrain what they can tell people?

A I don't personally believe that you can constrain doctors in that way. As I said, I think the key thing is giving them a base of information that they can build on.

Q If we just have a look at another one, on page 169. Now, this is a briefing. So this is a slightly different document, but, again, the first question is, is it right that this comes down from, as it were, from a directorate somewhere rather than is controlled by people other than----

A Do you mean by that, by the clinicians treating the patients?

Q Well, I'm just wondering

why this is controlled at a management level. That's the question I have for you, which is slightly further up the tree and further away from the patients.

A Well, this is not a situation that there are people in a tree and people on the ground. There is a rich mixture of clinicians and management team members at the directorate level interacting. So I don't think these are top heavy management-- non-clinical management documents.

Q This is in January '19 and seems to strike a positive note about halfway down, about additional measures to ensure water quality having been successful. Was that accurate at the time? Maybe you can't tell us.

A I would need to know exactly what-- There was a-- I'm sorry, I'm just not sure if this was provided after the water system had been dosed or not.

Q Well, even if it had, we've had some evidence in this Inquiry that you don't just, you know, turn a switch and some chlorine dioxide goes into the system and ten minutes later, it's clear. It's a long process to set up and takes quite a long time to become effective----

A Yes.

Q -- because of the nature of the biofilms and so on, it's dealing with.

A But there was monitoring going on thereafter. So I think this reflected that. I mean, I wouldn't have used the word "rigorous" because I think that is open to all sorts of interpretations but the fact is treatment had been given, and that the water quality testing had been positive in the sense of the water quality had improved.

Q Yes. When you're asked about that in your witness statement, if we go back to that at page 33, about halfway down, you're actually asked the question that you just touched on, "Did you agree with what was stated about the rigorous quality of water testing? If not, why not?" You were saying, "I was informed that the water testing remained reassuring."

Because you have in mind that somebody used the word "potable", which, as you say, is not a term perhaps in the vocabulary of the average individual discussing water but you don't have any expert knowledge to judge that by.

A No, the word I think might be Shakespearean. It's certainly archaic, and I-- but I am not sure and do not know whether that is a phrase

that is used in some hierarchical terminology of water quality.

THE CHAIR: From my entirely ignorant background on the matter, I think I would always understand the word “potable” as meaning drinkable.

A Yes, that’s my understanding, and one would expect in a medical environment for some water to-- you know, you will use highly purified water for some medical interventions, and drinking water for obvious reasons. So the nature of water quality within a hospital depends on whether you’re using it to dilute the antibiotic before you put it into someone’s system or whether you’re using it to irrigate a surgical field or whether you’re drinking it.

MR CONNAL: Well, can I ask you something else about January 2019? If we go to page 37 of your witness statement, you see the reference, question 14, January ‘19. You met with Dr Inkster and you can’t remember precisely what it was about but you say, you appreciate, “She was anxious about the infection control situation, which was quite understandable. She was not alone in this. “

Can you just explain what you’re telling us there?

A Well, by 2019, we were

four years into the-- well, three and a half years into the hospital being open and we were still dealing with an unsatisfactory situation.

Q Okay. Thank you. Just one or two other questions, if I can, about individual matters. If we go to page 38, you remember there was a time when Ward 2A was relocated to 6A, and the only question I think you’re being asked about that on page 38 is, well, who ultimately decides that, and you say, “Representatives of the senior management team, above the directorate team level.” So is that above the level you functioned in?

A Yes.

Q So, somewhere further up the tree?

A Yes, and I think it’s worthwhile pointing out that that is into the adult service. So, we’re dealing with the directors not only of the Children’s Hospital but also of the Queen Elizabeth because they are different and the hospital-- the larger hospital was designed for its catchment. It wasn’t designed to have paediatric children-- Sorry, “paediatric children”. My apologies, paediatric cases in it. So, from that point of view, we were going into the footprint of the larger entity with all of the consequences of that, trying to remain

child-friendly, trying to have the-- you know, needing all of the physical requirements in practical terms of, if a child became unwell, how would you get it? How would you outreach to that ward from the children's services? How would you make a transfer to radiology or to paediatric intensive care or whatever is required?

So, those are-- you can't just take a service and put it somewhere else without there being a lot of consequentials to the other place in general, and it's not-- That is practical, it is to do with Infection Control, it is to do with medical staffing. There are endless numbers of things that have to be thought about and, clearly, in an adult sector, they can't easily provide paediatric care. Whilst some teenagers will be the size of adults, the reality is we're talking about very much younger children in the main, and that's something that the adult services are distinct from.

MR CONNAL: My Lord, I am going to move onto a new topic now, so I'm conscious of time.

THE CHAIR: Well, Dr Mathers, as I previously said, we usually take a coffee break at about half past eleven, and we're now about half past eleven, so could I ask you to be back for five to twelve?

THE WITNESS: Absolutely.

THE CHAIR: And you'll be taken to the witness room.

THE WITNESS: Thank you very much.

(Short break)

THE CHAIR: Mr Connal.

MR CONNAL: Thank you, my Lord. I wonder if I could just pick up a small point of detail first, at page 38 of your witness statement, if we could just get that up. At the foot of that page, in question 42, you're saying that on 1 March 2019, you met Christine Peters and Dr Inkster about Cryptococcus. It's been suggested to me that Dr Peters may have been off ill at the time and I wonder whether that's a mis-recollection and it should have been Professor Gibson.

A To my recollection, I don't think I met Christine Peters until after the-- maybe during or after the pandemic, and that would be on Teams. So I-- but I took that as a piece of information that was presented as fact, so----

Q Well, okay. Perhaps we can just look at bundle 4, 151, because I suspect we find the answer there. Now, can we-- I think we need to just look at the foot of 151, please,

because there we see----

A Yeah.

Q "I met with Brenda Gibson and Teresa Inkster this afternoon at their request." So, when you say in your witness statement you met with Christine Peters and Dr Inkster, it's probably just a mistype for Professor Gibson.

A Yes, because she is mentioned, and Dr Peters isn't.

Q And why are you sending this SBAR to Jennifer Armstrong and Jennifer Armstrong alone?

A I think that was-- Jennifer Armstrong was very involved in the matter by then, and I suppose that that was-- I can't remember if David Stewart was still in post at that time. Maybe he was, maybe he wasn't available, so he would have been the deputy-- the acute medical director at that point in time, but I suspect there was a-- well, in fact, it would have been on the basis that I felt that was the level that was required.

Q Just so we see what this was about, at least briefly, can we scroll down onto the next page, please, and then you can see at the top, it says:

> "The main subject was to identify what to do next, following a look back at positive blood cultures with unusual organisms with the 2A cohort since the hospital opened."

And then there's references to water, a report, actions to try and manage last year, and one patient has had a-- there's been a difficult conversation, and, "Issue 1, a series of cases demonstrating a theme of water-borne gram-negative organisations(sic) of unusual type." And then, "Issue 2, earlier identification may have been possible." Was that the issue that you were raising?

A Well, yeah. Well, it had been raised with me, so from that point of view, that was there.

Q Yes.

A Well, one assumes that would be the microbiologist's view.

Q And about halfway down, just so we get this:

> "In questioning Teresa about the matter, I gained a clear impression that concerns had been expressed within Microbiology, that organisms were being seen that were unusual."

And then, your response, we see, issue 1, you've asked Brenda-- that's Professor Gibson, to arrange a review

using a standard review process because you need to show that the clinical team has responded appropriately, and issue 2, you say, I think in the second sentence there:

> "My concern is that there may have been an opportunity missed to identify the water issue earlier than it was, and is at least worthwhile exploring this... "

There would have to have been a series of cases before there was a chance of a pattern being identified. So, you were raising these issues with Jennifer Armstrong, and I think we see her response if we go back to the first page. We see in the middle of that page, she's replying to you, "Thanks for your email, discussed at the director's meeting." Now, is that a level above you----

A Yes.

Q -- she's operating? And she's copied her reply to Jonathan Best, David Stewart, Linda de Caestecker, Sandra Devine, and Kevin Hill:

> "Directors were in agreement we should ask you or Kevin Hill to commission an initial assessment, do it in conjunction with Infection Control, Microbiology and Public Health, and Linda is very happy to discuss a lead doctor from the Public Health team at least doing the initial report."

Then, at the top of that page, we see a comment from Linda de Caestecker, in which she says, "I discussed this with Iain Kennedy who's already undertaking an analysis of the data, working with Teresa." So, it rather seems as if you've asked for something to be looked at, but then you're getting the message someone's already looking at it.

A Yes, and I think in the answer to one of my other questions, I make that point, that when Jennifer suggested that myself, Sandra McNamee or-- no, Sandra Devine, possibly----

Q I think it's the same person.

A Sorry?

Q I think it maybe Sandra McNamee, then Devine. I think she----

A Okay, sorry. That's-- Anyway, I should be more alive than that to changing people's names, but, anyway, the-- when I met with them, it was quite clear that work had already been done because I recall them both saying we-- that is in train. What I don't know, but I can presume, is that that information that was presented as

a retrospective piece of work had already been presented in microbiological-- within the microbiological environment, as in the team, and Public Health, because Dr de Caestecker is a Public Health doctor.

Q I suppose that the slight unknown is that here you have Professor Gibson, about whom you've spoken so highly, and Dr Inkster, who's a very experienced infection control doctor. They're coming to you with an issue. They spell it all out, you set it all out in a document, so presumably they didn't know that this was already being examined by someone else.

A There is always a danger in hospitals of silos, and it wouldn't be the first time in my life that I've discovered that one group of people are looking at something that another group of people are looking at, possibly from a completely different perspective and with different agendas, but I don't mean agendas in a suspicious way. An example might be that anaesthetists might look at certain aspects of surgical practice and surgeons might look at the same cohort of patients, but from a surgical perspective.

Ideally, when it's a complex thing,

you have as many people looking at the same thing, bringing their own expertise to it, and I think that from the original SBAR, it was quite clear that Brenda had concerns about particular cases of a narrow nature and Teresa was presenting a longer historical issue. That's my recollection of the position.

Q Were you involved in the follow-up to all of this?

A Only in reading information that was presented to me.

Q Can I just ask you to look at one document briefly, bundle 14, 559? I should bring it up for you. Volume 2, sorry. Bundle 14, volume 2, my fault. This appears to be an email of 12 August 2019, from Professor Gibson, saying, "I sent you a list of outcomes for patients with positive blood cultures a few week-- and hadn't heard..." and she comments on the causes, and she says she has to, I assume that's "attend":

"…an interview with HSE tomorrow and could be asked when we first became concerned about the environment on 2A. Certainly, it was as early as 2017, if not earlier."

Do you remember getting that?

A I receive a lot of emails, but that-- so I'm aware of that set of events as opposed to this particular

email, in the context that I was aware that there was a need. This goes back, I think-- This is linked in time with the previous SBAR. So that was the specifics of these cases, and should they have a different look?

And at that time, the options available were to have my immediate predecessor, as in the associate medical director, Jim Beattie, look at the cases, because he was a paediatrician, or whether we had a person external to the case management here, which is what happened, that one of the haematology-oncologists, not yet in post, but now in a substantive post, that's Dr Chaudhury, looked at the cases, just for externality, from the point of someone that was not working within the system as was.

Q Okay. Can I ask you about something else that happened in and around that time, in August 2019? If you go to your witness statement at page 43, you say, at question 48, you attended a meeting to consider a recent experience of IMT meetings chaired by Linda de Caesecker, and that you recall attending the meeting. You were asked what the purpose of the meeting was, "To discuss IMT meetings." You see that?

A Yes.

Q Could you have a look at bundle 14, volume 2, page 568, please? Now, this is the invite to that meeting on 20 August, and you see there that Jennifer Armstrong, and I will need to no doubt ask her about this, says:

> "As you will be aware, there are a number of issues regarding the Haemato-Oncology Unit at QEUH. I'd like to discuss these."

That doesn't say it's about the handling of IMT issues, does it?

A No, it's quite a broad, unspecified remit.

Q Well, precisely, but I suppose it doesn't alert anyone to the fact that the topic is going to be essentially the chairing of IMTs.

A Correct.

Q Now, we know that Dr Inkster didn't attend that meeting. It doesn't matter why for present purposes, but I suppose that the question I have to put to you is this: if somebody sent a meeting invite suggesting that there was to be a meeting to discuss, I don't know, stillbirths at Glasgow Royal Infirmary or something, and then the meeting ended up, in your absence, discussing your conduct as head of women and children, you would presumably be not

very happy about that.

A That would be correct.

Q So, you might understand that Dr Inkster might not be very happy to discover that a meeting organised on that invite turned out to be discussing the chairing of IMTs, of which she was the chair.

A You will have more insight into this but there were a number of IMTs, so I don't think she was universally the chair of them all, but I defer to your knowledge on that. I'm very conscious that a senior microbiologist would generally chair an IMT as it happens and I think there were-- as previously mentioned, there were some IMTs that were very much related to a particular organism in a particular place.

That might still be in the QEUH site. So, for example, in the neonatology department, which has a separate ventilation/water system, there might be an IMT run in the way that I previously described: something is found, mitigations occur, problem is resolved, monitoring continues. In the sense of the IMTs, from recollection-- I did not go to them all but my recollection was that, when we got into the unusual organism and recurrence of different organism but recurrence of the problem, the IMTs became very

much the microbiology, the hypothesis, the mitigations and the Estates and Bacteriology teams' requirements with regards to changing taps, sealing things, discussing moisture around cooled beams, etc.

So I suspect that, as I've said before, the mystery continued, and I would have to bow to your knowledge of Dr Inkster possibly being the lead for Infection Control by that time and being the established person managing these.

Q Had you not been at IMTs chaired by Dr Inkster?

A Yes, but I'd been to IMTs that were chaired by other individuals as well. I think that just-- The reason is that I attended IMTs, for example, at the Princess Royal Maternity over a completely separate matter and I probably attended one in the neonatal service at the Queen Elizabeth, and maybe one in Paisley, not entirely sure about that but I suppose my oversight of-- my experience in IMTs was in context beyond the haemato-oncology service, and there were some other microbiological things that were going on in different areas unrelated to ventilation and water.

So you would occasionally, for example, get an infection where it was linked back to a particular precise

situation. There's a lot of infection surveillance goes on and over the period of my tenure as chief of medicine, there's been a number of things that are external to the hospital that have come up.

Q Well, I won't get you to read your way through the minutes because we can all see what the minutes of that meeting provide. You provide your own comments on chairing IMTs, I think, on pages 44 and 45 of your witness statement and, I think, am I picking up that, in general terms, you think that there were some robust discussions but there were real concerns and generally matters were conducted in a challenging but otherwise effective way?

A That was my impression as a clinician. I expect my clinical colleagues to absolutely wish to seek the best for their patients and so, when there was uncertainty about prophylactic-- There's a world of difference between being responsible for prescribing a medicine and managing that case and dealing with everything that comes round to it, not just cure but parental anxiety, patient anxiety, etc.

So, you know, I would-- and as I said earlier on, we don't like uncertainty as doctors but we live with it all the time. So if someone is saying, "We're going to do X," then it's perfectly robust, appropriate, scientific approach to say, "Well, where's the evidence for that?" and I-- you know, I am more than happy to ask a robust question and, naturally, and I assume that you, as a professional, do things-- it's good to get a binary answer and sometimes the simplest way to do that is to ask a very direct question and, if there is wriggling, to hone it down. So I don't think----

Q I suppose I'm just trying to paraphrase what you've said in some detail here, that your experience, and it's only your personal view, was that there were robust challenges but, in general terms, things were conducted in a reasonable way?

A Yes, I-- not related to this but I have been in situations where people have stormed out of rooms, I have-- or they have communicated robustly, verbally or by email, immediately after an event, etc., etc., and all human life is presented but I did not feel that anyone was-- Well, I suppose, how do-- if you have a particular view and you do not get your way or your view doesn't seem to be weighted according to how far you think it should be weighted, then one person's view of being undermined or

being ignored or being sidelined will be interpreted by someone else. I was very much a interested bystander in that because I was not directly treating patients. My investment was an overall, "I want this to be as safe a place as possible."

Q Well, perhaps we can summarise it in this way. If we look at page 46 of your witness statement where you've been asked what was to happen after that meeting and you say, "Well, I don't know any details of that" but you then say, "I found the IMTs I attended to be professionally conducted both before and after" the meeting we've just been discussing. So that's your short summary.

A Yes.

Q Can I just ask you one thing about-- on a sort of practical level which comes from page 45? That's this-- There was a proposal to have small group pre-meetings in advance of IMTs. You were asked about that on page 45, near the foot of page 45, and you say, "Well, I'm in favour of preparation meetings." One can see that and I can see what you say at the end of that paragraph, "Critical information is best not tabled in real time during a meeting," because if people produce lots of material that other people haven't had the chance to look at, one can immediately see the issues.

I suppose that the question I have to ask you is about small group pre-meetings because the inference perhaps is that the small group have information, the small group discuss it amongst that small group and then go to the meeting.

A Well, I would not----

Q Is that a good idea?

A Yeah, that's a separate meeting, that is not a preparation meeting. So, from-- I know there is a view held by non-medical management, psychologists, etc., that a lot of the real work of a meeting goes on outside and the meeting is there as a function of getting something achieved. I think that it is good chairmanship to determine what is admissible, what is not admissible, and I have seen, on many occasions, information be presented-- in general, this is over a 30-year management career, presented as a stunt sometimes, and completely-- the motives of which are not helpful for progressing anything. And, you know, occasionally as chair I have said, "That is not admissible", or, "That requires a separate short working group", or whatever.

I do think it is-- These are-- Any

meeting that has the number of people that attend is a lot of money-- of taxpayers' money being used, and it should be used efficiently. So if it's to happen within an hour or half an hour or whatever, it needs to be focused, and that's why I think that is reasonable prep but I take your point. I would expect a experienced person to be very wise to, you know, a cabal, or, you know, an agenda being-- subverting the job of a meeting, and an IMT has a structure, "What is the problem? What is the hypothesis? What are the mitigations?"

Q Thank you. I'm just going to jump forward a bit. Can we go to 52 of your witness statement, please? Just a question I've been asked to raise with you. I'm not otherwise going to ask you about this meeting. In question 54, you were asked about an IMT in July 2020, so a little bit further on, and this was an IMT after a positive Cryptococcus antigen test in one patient. The question I've been asked to put to you is, "Were you told this was a false positive by Professor Leonard?"

A No, I don't think I-- I don't think I'd ever met Professor Leonard or had any communication with him----

Q Thank you.

A -- at that point.

Q Okay. Well, I think we can then move on and, to some extent, we may be touching at least briefly on material that we've already discussed just because it's cropped up earlier. So, if we look at page 53, there's a more general question put to you about, "Were infection rates unusual in frequency and type?" and your answer is you've got to restrict your comments to the RHC's part because that's your jurisdiction, and then what you say is, "The infections were unusual in variety and type compared to the paediatric clinicians' experience." If I can just pause there, the paediatric clinicians in the RHC, put together, would have had quite an extensive amount of experience, would they not?

A Yes, and I think it's always useful to think of that. So if, for example, you have four clinicians of-- at consultant level, you have about-- depending on their ages but you have about over 100 years of experience amongst that group of people. Multiply it up, it's not difficult to see.

Q And you go on, I interrupted myself in the middle of that sentence, that "they weren't always appearing in the kind of clusters in short time period as I've experienced." Now, that's the description you've given us earlier about, "Something

crops up, you've identified the cause, you fix it, it goes away." Thank you.

You were asked a general question further on about staffing levels in Infection Control, whether you had any comment about that, and you say, "Well, nobody came to me about it but there did seem to be a need for a lot of out of hours working going on." This is page 54, question 59.

A Yes, I was aware at IMTs that extra money was being paid for weekend work for-- because the hospital has a requirement for 24/7 microbiology but these were additional tests that were being ordered in addition. Of course, if you order a microbiological test on a Thursday, people are going to work into a weekend because the results are not-- Again, I don't want to stray out of my area of expertise but it takes time to grow bacteria, etc., etc.

Q Thank you, and I think probably we've touched on this again but, on page 55, the foot of the page, the answer to question 63:

> "[You've] experienced many infections in clusters. The issue of concern here was a lack of a readily identified cause and set of effective mitigations. Treatment was delivered but the underlying mystery remained."

And then you refer to your previous experience, and it probably follows then that your answer to question 54, "How does this differ from your previous experiences?" is, "It was a very different experience."

A Yes, and I have been involved in infection clusters for bacteria, for example, that were new to the UK, and sometimes from very odd materials, infections in Vaseline and things like that. So I am aware that there is always a mystery element to some of these things but if the mystery is solved and the problem goes away, we're happy.

Q I just want to ask you one thing about prophylaxis, which is a section of your witness statement that starts at page 58, and you were asked various questions which we needn't revisit. Can you assist us at all, and maybe the answer is you can't because of your role, as to whether the patients, or I suppose we're probably talking about parents in the main rather than patients themselves, were told that additional prophylaxis was being prescribed because of concerns about the environment? Are you able to assist us with that at all?

A Well, as I think I said in my statement, the need for prophylaxis

is because you have a risk that you are trying to prevent, and prophylaxis comes in many forms but the reality was that we were putting a lot of things in place to mitigate risk.

Q Well, I suppose the question is, "Can you assist us at all on whether the parents or patients were told that the reason for, you know, prophylactic drug X is because of some issue with the hospital environment rather than something to do with their inherent treatment?"

A I would not wish to presume anything but, by this time, the families would have been getting bottled water, there would have been quite a lot of markers that there was concerns about the overall environment. The timeline for that would be important but, at the end of the day, the treatments for some of these children and the contacts with the departments are over years, not just a few months.

So, I think, if I was a parent or a relative, you know, that is quite a long landscape and you see a lot of different things happening. So if someone was new to it, their normal is different than someone that is not new to it. I'm sorry if that's not very clear but I think, you know, there is a huge time element to this with regards to

what a patient experience might be.

Q I suppose the question that's been raised is that some parents felt that they weren't told that, you know, drug X-- prophylactic drug X, whatever it happens to be, a number of the-- possibly Prozac and (inaudible) I think, and so on, weren't told that the reason that their child was being administered with that drug was nothing to do with their underlying condition, but it was due to a concern about whether it's the water or the ventilation or whatever. I just wondered whether you were able to help us with any insight on that.

A Obviously, you would have to-- That is a perspective that I can't-- There will be some people who will have come in to have a particular regime and the regime will also be "regime plus something new", because they have re-entered the treatment, and the treatments are the core treatment but also the additional enhancements that are put in for that. Again, I think that individual parents will have-- or patients will have a very different experience of that, and I'm sure there was expressed curiosity as to, "Why this time, when that wasn't what happened last month, or six months ago?"

I don't think it was ever-- I mean,

I have some experience personally of people having treatment of childhood cancers, and so I am very aware of the journeys that are involved and the awfulness of the situation.

Q I think there are only one or two more questions I want to put to you. You've commented in a number of places on communications and duties to communicate and so on, and that's been very helpful and we can see you use phrases like "openness" as key.

One of the-- Here is a suggestion I'd be interested, therefore, on your take on, from your experience. Phrases that tend to be used about communications with patients are "open and transparent". In the course of another inquiry, not ours, the suggestion was made that you should add to that "and forthcoming". Because you can be open, somebody says, you know, what day of the week it is, you tell them it's Friday, but maybe another step of actually coming out and volunteering information without necessarily being asked. Do you think that's a good thing from your experience?

A Yes, and it would be my favoured approach. The issue is always, how forthcoming are you, because I know of some clinicians who

are very reluctant to talk about-- So, for example, if someone is having a caesarean section, there is a very small chance that you could die as a result of the operation, vanishingly small, but we are duty bound to tell people on a consent form that they are to read, etc., but I don't when going through a consent form with a patient that they will emphasise that as an outcome, but I've always been of the view that if you do not explain, someone else will and they may not explain it from your perspective as well.

And so from that point of view, in the practice of medicine, there is always a risk that-- People can get information from all over the net and a lot of the job now is to actually distill what people have as their base set of information, into what is the reality of being treated in the NHS, in this country, or in this unit, or whatever.

Q Sometimes referred to as consulting Dr Google. They look things up.

A Yes, but the reality is that quite often people will get that information from the rest of the world and the rest of the world has very different health systems, and I have frequently been in the situation where someone has said, "I'm in touch with a

doctor from," blah, blah, blah, "and they say"-- and I have no way of knowing whether that person actually has a medical degree, whether they are still in practice, whether they are disbarred. That is the reality of what information is available.

Our job, at the highest level, is to try and ensure that the facts as pertinent to that individual are made very clear, and that requires honesty. So I think it is beholding to me, if I'm about to have an operation, that I know whether this person has done the operation before and what their success rate is and what is the chance of me surviving and surviving intact. I have personally not undergone a surgical operation because the stakes pertaining to me were not ones that I would accept. Unfortunately, two years later, the problem had resolved with physiotherapy, so----

Q Thank you. I think I'm just now going to come to the conclusion of your witness statement. So if we go to page 68, where you've been given, in effect, the opportunity to add anything that you thought might be helpful, and you say about halfway down, the answer-- in paragraph-- to answer, 90, you say, "I wish to draw attention to making a recommendation about what resources are required to manage a hospital site move and the bedding in period, years rather than months."

We've had some evidence from quite different perspectives about what, for instance, the Estates team were faced with when the hospital opened and whether they had enough people, whether they had enough resource and so on, whether they were in early enough, whether Infection Control were in early enough. What's your take on this, from your experience?

A I've seen projects that have worked very well . They have-- If they've been bolt-ons-- So, the Princess Royal Maternity was a bolt-on to the Royal Infirmary site. So a lot of the Estates issues or whatever on that site were already addressed. By the same token, the whole stack lost its power overnight once, with major issue, simply because the electrics in the base of the hospital were no longer adequate for the purpose of that extra site.

So I'm very aware of that-- And what I'm trying to get across is that I am familiar with a lot of NHS building projects which have been beset with what some people might say as nagging problems, but are real issues from the point of view of reputation,

management of the practical aspects of treating people, etc., and then amongst all that, change is difficult. The Estates people would have been looking after a completely different configuration. The QEUH is like a cathedral to medicine in its size. Much was spoken about its large size compared to other hospitals in Europe, etc.

Beyond that, the bigger you are, then you will have the need for a much different infrastructure-- an enhanced infrastructure. You will be bringing different groups of people. So there were-- The Children's Hospital was the easiest because they were moving a team of people from one environment to another bespoke environment, but for the whole hospital site, you were amalgamating three hospitals, cultures, and all that comes from that into one entity.

I don't think enough attention is maybe placed on that change management, because 10 years later the QEH has its own culture now, which is not the culture of the past because people move on and medicine moves on and triumphs occur and interrelationships occur, but I don't think people can underestimate the difficulties of, for example, changing the entire secretarial arrangements, the administrative arrangements. So the secretaries were no longer-- This is-- I'm talking about the Children's Hospital, but there is-- you know, instead of the secretaries being embedded or the admin staff within, say, a ward, they are moved somewhere else. So there was much talk about the dissociation of that connection.

There were other issues that occurred with regards to-- there's always issues with equipment, but there were things like glass doors that shattered. All of these things are part of a hospital's memory and experience, but they are all things that in retrospect we tend to deal with in a reactionary way rather than proactively and, yes, the purpose of this Inquiry is in part-- I'm not presuming to-- but the purpose of this Inquiry, I think, is to learn how the building of hospitals – that's the only thing I can talk about in the future – could materially be improved, not just in pursuing, for example, green box-ticking with regards to environmental things.

I am the chair of the hospital sustainability committee. So from that point of view, I'm not wanting that to sound like a pejorative statement, but the reality is getting people to work in a new environment and effectively and

happily because that will transform into good patient care, is, in my view, as important as the actual build around them, and my job would be a lot easier if people were happy or happier.

Q I have no further questions for this witness, my Lord.

THE CHAIR: At the risk of repetition, Dr Mathers, you've described a period of time when there was what you described as a "mystery", possibly beginning as early as 2015 when you talk about concern over fungi and continuing, I think, at least until the beginning of 2019. Is that a fair saying back to what you've already said?

A I think 2015 was about safety and prevention of risk in terms of fungi because that was a recognised issue with immunosuppressed patients. I think we mutated, in 2017, to concerns about the rest of the environment.

A And the concerns from 2017 arose through experience of what I think, on a number of occasions, you've described as "unusual" infections. I think maybe two elements there, encountering unusual infections and a variety of unusual infections and I think, quite strikingly, you made the observation that from your personal experience you were

hearing discussed at IMTs microorganisms that you, in your own practice or your own knowledge, had not previously come across. Again, if I've understood your evidence, the paediatric clinicians, and I distinguish paediatric clinicians in the context of this from the Infection Prevention and Control microbiologists, were similarly reporting an experience of a variety of unusual infections.

You mentioned in your statement that this continued at least until January 2019, because you say that Dr Inkster was concerned about it and that was understandable and she was not the only one who was concerned. Were there any voices in the other direction? Was there any suggestion that-- not withstanding what you've just said, that there was nothing unusual occurring, either in the Children's Hospital or in the Queen Elizabeth?

A No, I think the idea of passivity, or-- I got no impression of there not being a concern and I think the nature of mitigations that were being employed to me was of an organisation that was trying to do something.

Q I suppose an organisation might take measures out of excessive caution. I'm interested to know whether there was anyone

arguing or suggesting that there was in fact nothing unusual happening.

A Well, I have no experience of anyone taking that position and I think I would be-- I think it would be breathtakingly naive, given the fact the amount of data that was presented for someone to take that position, particularly when you're dealing with-- You know, a condition that is guaranteed to get onto the front page of a newspaper is leukaemia in children. So, from that point of view, these are the highest stake patients. I know other professionals will have a view that their patients are the highest stake. I mean, I do not think you can take a more serious scenario and take a point on it not being a problem.

THE CHAIR: Thank you. Now, what I have to do, Dr Mathers, is just check if there are any other questions in the room, as it were.

THE WITNESS: Yes.

THE CHAIR: So I'll invite you to return to the witness room for what should be no more than ten minutes just to check on what the position is.

THE WITNESS: Thank you very much.

THE CHAIR: All right, we'll rise for 10 minutes.

(Short break)

THE CHAIR: Mr Connal?

MR CONNAL: I have a couple of questions, my Lord.

THE CHAIR: A couple of questions for Dr Mathers.

THE WITNESS: Thank you.

MR CONNAL: One, I'm afraid, goes back to something I asked you a little earlier. I'm just keen-- I may have been distracted by a relatively long reply to a relatively short question, which is my fault. What I had asked before was whether you were able to help us about whether parents were told of circumstances where prophylaxis was being prescribed for their child, not for their illness but because of, let's call them, environmental issues, just to be general for the moment. Now, you gave me an explanation about some personal experience and so on. Are you able to answer that question more directly and tell me whether patients' parents were told, or are you not able to help?

A I believe that people were informed of what measures were in addition, but I cannot speak further than that. So, nobody was withholding information about prophylaxis. As I said before, there will be some people where the prophylactic measures will

have changed during the course of treatment.

Q Now, I can understand that it's relatively unlikely that someone would withhold that information. If somebody asked a direct question, they're not going to say, "I won't tell you." But if you take the example that you've just given of somebody who's perhaps had a number of visits, different treatments, and so on – a not uncommon pattern, unfortunately, in some of these cases – in that instance, they come back in as an additional prophylactic drug.

A Mm-hmm.

Q So the question is, are they told, "Well, you're getting this particular drug because of issues with the water or the environment," or whatever?

A So, I can't answer that specifically. There will be times where prophylaxis might change because the nature of the infectious risk or whatever has also changed but, in broad terms, prophylaxis means different things to different people.

Q So, the answer is you can't really----

A I can't say with-- I mean, I think the clinicians would be able to answer how they were approaching that.

Q I just had one more question, and it's a fairly general one. You've described a situation in which there were challenging issues, unusual issues, issues where people were coming up with proposals for fixes which then didn't work, or did work for a while and then something else had to be done, quite a lot of action. Who was driving that constant action to try and solve the problem?

A I think that was a multidisciplinary team. At the end of the day, information comes in for one thing. Things like in Estates, a hypothesis is raised, "It's the cool beams," so something is done about that. I don't think that an individual was directing that beyond the fact that all of this costs money and there would have to be some form of oversight as to how those mitigations were placed. I seem to recall that in some situations, just sourcing equipment, taps, etc., were not an inconsiderable challenge.

Q I can understand the point you make, that if you're talking about chilled beams, somebody in Estates has to go and do X or Y.

A Mm-hmm.

Q But that's the action that arises from somebody saying, "We need to do something about this," or, "We think we need to do something

about this, or this is one of the things we need to do something about." What I'm trying to get at is, who's doing that part of the exercise? Who's pushing for all these things to happen? Is it one person or a group of people?

A Well, it boils down to the fact that the Board had, by that time, a problem, and the Board are directing people. We have already described senior people, the director of public health, the medical director, the chief operating officer, chief executive, all appeared at some meetings.

Q But not very frequently, in fairness, do they? You don't often see people of that seniority turning up, say, at IMTs.

A No, that was a progressive event.

MR CONNAL: I have nothing further, my Lord.

THE CHAIR: Thank you, Mr Connal. Dr Mathers, that's the end of your evidence and you're free to go but before you do, can I express my thanks for your attendance today and for the work necessarily involved in preparing to give that evidence and producing a witness statement. Thank you very much, you're free to go.

THE WITNESS: Thank you.