Friday, 20 April 2012

(10.00 am)

(Delay in proceedings)

(10.15 am)

Discussion re timetabling

THE CHAIRMAN: Good morning. This will be confirmed as the day goes on, but I understand from discussions between the various representatives that it now seems unlikely that we'll get beyond Dr Taylor's evidence today. If we did, it would be, I think, some time into the afternoon and I'd be a bit reluctant to start Mr Keane at 3 o'clock if we're going to stop at 4.

I understand, Mr Millar, that he has helpfully made himself available for Monday, which had not been the original plan, is that right?

MR MILLAR: He originally anticipated that he would have finished his evidence by the end of this week, and on that basis he arranged an operating list for Monday afternoon, and that's why he was unavailable.

As things have developed, I think he has taken a view about his priorities and he has made himself available on Monday. He will certainly be able to start his evidence on Monday, if that's how it's now shaping up, and will be able to continue, subject to the inquiry's own timetable, on Tuesday, if that is what is

envisaged.

THE CHAIRMAN: We'll all have an opportunity over the weekend, having heard from Professor Savage and Dr Taylor, to consider where the evidence stands, and not just in relation to Mr Keane's evidence, but in relation to the various other witnesses who are scheduled to give evidence next week.

I think this means that Mr Brown will not realistically be giving evidence on Monday, but I do want him to give his evidence before Dr Armour gives hers, which I think is next Thursday.

After we finish today, we will be reviewing the list of witnesses scheduled to give evidence next week and it may be that not all of them are still required, or some of the points that will be raised with them, which we had intended to raise with them, will be unnecessary. But we will review that after we finish and see if we can get pretty much back on track by the end of next week.

MR MILLAR: Can I say then to Mr Keane when he arrives, sir, that he will not be giving evidence today, as I'm sure he would quite like to know what is going to happen.

THE CHAIRMAN: I'm relying on what I'm told about the discussions between various counsel who are most likely to be questioning Dr Taylor, and I understand that while

everyone's confident that that evidence will finish today, it's unlikely to finish before lunchtime. Once we get into the afternoon --

MR MILLAR: There's also the fact, all other things being equal, it's not particularly good that he be in the witness box and left not able to discuss anything with anyone over the weekend, for example. I think, in all the circumstances, it seems that's the sensible thing.

THE CHAIRMAN: Normally -- I should say for future reference -- I wouldn't be too concerned about that, but I can understand how the evidence that has been given already by Dr Taylor, and will be given by Dr Taylor, is relevant in some respects to the evidence which is going to be given by your client. And I accept that it would be better, in these particular circumstances, if he had a little time with you and your solicitor to consider that before he starts his evidence.

MR MILLAR: Thank you very much, sir.

THE CHAIRMAN: Okay.

DR ROBERT TAYLOR (continued)

Questions from MS ANYADIKE-DANES (continued)

MS ANYADIKE-DANES: Good morning, Dr Taylor.

Dr Taylor, we covered some ground yesterday and there are a few things out of your evidence yesterday that I will need to recap with you, but I'm not going to

seek to do that now. I will try and proceed in a more or less chronological order as to what happened and pick up some of these other points. So forgive me if I ask you something that you already dealt with yesterday, it's simply in an effort to clarify something.

A. Okay. I understand.

Q. I think where we left off yesterday was really to do with your consideration of the medical notes and records of Adam -- well, more how much time you had available to carry out that exercise.

I'm going to put to you what Dr Haynes has said you should have gleaned from that exercise. I'm wondering if you can help by commenting on whether you agree with it or you disagree with it, and if you disagree with it, the extent to which you disagree with it.

This is all not on your reflections now, but if you can think yourself back -- which I agree is not an easy thing to do -- to 1995 and try and see whether you agree that this is the information that, at that time, when you were going to look through his medical notes and records, you were hoping to find or were looking for.

If we pull up reference 204-004-163 and if we see that paragraph that starts (iii) -- we may have already seen this, and if we have it's one of those areas that I'm asked to clarify with you.

So this is a reference to your preoperative assessment and it's described as an integral part of an anaesthetist's duties and if it is not performed adequately, mistakes will inevitably, as Dr Haynes believes, be made.

These are the things that he thinks you should have expected -- or he would have expected you to ascertain. So the first is the nature of Adam's underlying renal pathology, and then he goes through the normal fluid balance, the electrolyte requirements and the intake and so on; and the fact that he required sodium supplements and that you should have realised that the sodium had to be given as a constituent of all the fluids administered and that repeat tests on Adam's blood were required.

Then the detail of the post-operative course following major surgery, in previous times that is, when he was seriously ill and he identified in particular that particular, December 1991 to January 1992, which I think you recollect he had a period of dialysis there for chronic renal failure at that stage.

Then to have noted that he had several central venous lines inserted and to have ascertained the details of his normal peritoneal dialysis regimen.

It goes over the page to -- I think it goes over the page. Can we see over the page? Yes. To have read the

medical correspondence following his recent nephrology outpatient visits, to have noted any difficulties encountered during previous anaesthetics and to have noted any other features regarding Adam's health in general.

Now, would you accept that in 1995, when you were going to his medical notes and records that is the sort of information that you should have been ascertaining?

A. Yes.

Q. Can you help us with, were you satisfied that the medical notes and records available to you allowed you to satisfy yourself about those things?

A. I can't remember if they were all there in 1995.

Q. I understand that. Were you aware as to whether you were seeing all of Adam's medical notes and records or just the most recent?

A. I can't help you by confirming that.

Q. That's all right. Maybe we can approach it a different way, and if we can't we will move on. Did you have the notes and records because you specifically asked for them or you went to the ward and saw what was there?

A. The usual practice would be that the consultant -- I'm an anaesthetist, I don't have patients on the ward.

Q. I understand.

A. The consultant physician, paediatrician, nephrologist or

surgeon would have the responsibility for collecting or ensuring that the records were available to the other doctors who visited their patients, so it wouldn't be my request primarily to request that notes and records be available on the ward.

Having said that, if I came along and found that there was some information not contained in the records that were available to me, then, yes, to your question, I would have the duty to request further notes be made available to me if I considered them important.

Q. Have you ever had to do that before, Dr Taylor?

A. I don't remember specific instances, but there are -- there have been occasions -- I don't know if before 1995, but in my career there have been instances when I've appeared on the ward and the medical records that I require to safely anaesthetise a child have not been available. And yes, I would wait -- if I deemed it necessary and couldn't get that information elsewhere, then I wouldn't continue the anaesthetic.

Q. If you have to call for medical notes and records, can you help us with what sort of time it takes to get them up there, or is that something that differs so much with each case that you can't really say?

A. I think every doctor could say that he's had difficulty finding every medical record of every patient he's ever

looked for. They can be in various places. The medical records department should be able to trace notes in a reasonable time, whether in hours or, as in Adam's case, out of hours. Some records are kept on the ward, some records are kept in the medical records department, some archived records -- I assume you know what that means --

Q. Yes.

A. -- would be kept in a storage facility. It is not my area of expertise to locate and find records or to file records, but that is my understanding of the situation with records.

Q. I understand. One final question in this area. I think when you were giving evidence yesterday, you said that what you would typically look for, you would look for the records, which are the anaesthetic records, which were red tagged; you would also look for the summary, so you wouldn't be flicking your way through all the bundle of laboratory results, say, of the blood tests, but you were looking for those summary sheets, as I think you described them yesterday, and I think we saw some examples of them.

You may recall that when Professor Savage was giving his evidence, it was being put to him that what some of the inquiry's experts had suggested happened in their

centres is that once a child is put on the register, there's a multi-disciplinary team and they start to compile, if you like, quite apart from the meetings that they have and the discussions that they're having, records in a way that would be most useful for someone who was coming to the transplant surgery, who may not know very much or anything about the child.

What I want to ask you is: if records had been put together like that for you, would that have been useful, helpful, to you or were you readily able to find whatever you needed to find in the way the records were presently organised?

A. Well, you're asking me to comment on something that's really beyond my area of expertise. It's not my decision or my job to arrange multi-disciplinary meetings or when they should be organised. So --

Q. No, I'm not really asking you -- I haven't made myself clear. I wasn't asking you about you arranging the multi-disciplinary meetings. I was explaining to you that some of the inquiry's experts had said that, in their experience, that is something that happens, and along with that what happens is that the records start to be compiled in a way that would be particularly useful to somebody who was coming -- particularly when you've got a cadaveric transplant, you don't know when

the offer will be made, you don't necessarily know who will be carrying out the procedure.

So these records are being compiled in a way that would be most useful for a member of the transplant team, who may not know anything about the child, rather than leafing your way through all the general medical notes and records of the child.

So that was what they were suggesting is something that might have happened. It didn't happen in Adam's case, and what I'm asking you is whether you, as a matter of practice, would find that a helpful development.

A. You've given me an awful lot of information to consider there, so I want to be fair with my answer.

Q. Yes.

A. When I said it wasn't my expertise to organise the multi-disciplinary meeting or the summary of a case, I didn't mean that I'm not going to -- what I meant is that it's a bit unfair for me to comment on what somebody else's job should have been to do. That's the context of my poorly expressed answer.

It would be common sense for me to say if every patient I went to see had an A4 sheet of all the salient points at the front of their notes, that would be the perfect world.

And in fact that often is the job of the pre-anaesthetic assessment, to put a full patient medical records -- in Adam's case, a bulky set of documents -- on to an A4 sheet. That's basically what my job as an anaesthetist is to do, to summarise all the medical records and put it into what we saw yesterday as the pre-anaesthetic assessment. So if somebody did that for me, that would be ideal, and it doesn't happen frequently enough.

Q. No. Just so that we're not misunderstanding, maybe we can see if we can pull up that anaesthetic assessment form.

Are you saying that that form that you compiled that we saw yesterday, which you signed off on and had all the boxes where you had ticked and so forth --

MR UBEROI: Sorry, just to assist, 058-003-007.

MS ANYADIKE-DANES: Thank you very much indeed. That's actually a clearer one. The one we had yesterday, we were struggling to see whether there was a time because it had been photocopied off the page. There are boxes there for times, but none of them are ticked. This sheet, and it goes on for a number of -- can we go on to 008?

If we pause there and we look at the sort of information, this is your intraoperative record.

A. Yes.
Q. And if we go on to 009 -- there doesn't seem to be a 009. Maybe we'll go back to the first page then, 006. That seems to be a final -- post-operative instructions. All right. The original 007. Yes, there we are.

So this looks like the actual assessment, so there you've got significant history. Now, so that I'm understanding you correctly, are you saying this form would approximate what had been discussed before as a pulling together the essentials from a patient's medical notes and records who had just been put on a transplant list, and that would then be available for whomsoever would be involved as a transplant team and that they should come; is that what you say would approximate to that?
A. No.
Q. Because that's the question I was asking you.
A. Sorry. What I think I said -- forgive me for not expressing myself well -- was that if I went to a ward to see a patient and the whole notes were summarised on an A4-page, I could be in a position to transcribe the anaesthetic elements of that A4-page on to this sheet. This is a sheet that I should fill out or my deputy, my trainee.
Q. I understand.

A. So this is not the summary of the patient's -- if you're getting at is this a summary of the patient's records, no. This would be the anaesthetic relevant elements of the summary of the patient's records.

Q. I understand, which would have been much easier or faster to complete had such a summary -- the summary that I was discussing -- been there on his notes, is what you are saying?

A. That would be --

Q. Has that been discussed, ever doing anything like that?

A. Well, that does happen -- in some patients, from time to time, if the patients are long-term patients or chronic patients, if the notes are complex, then doctors can, from time to time, summarise every now and then in the notes what has happened on previous occasions.

Q. I didn't mean quite that. I meant a summary of the specific sorts of things which would be useful for a member of the transplant team to see, who may not know the patient when they come in -- as it would have been in the case of Adam -- that previous evening or first thing in the morning. I meant had there been any discussion that that might be a way to start to compile medical notes and records for these sorts of patients?

A. I can't remember a discussion, I can't remember if there was a discussion or if it was discussed.

Q. Thank you. Thank you very much. Then if we may move on to communications amongst the transplant team. I think you had said yesterday that you had spoken to Professor Savage on the evening of 26 November and he had given evidence -- and I think you may have agreed with him -- that you also spoke to him on the morning of the 27th. Is that right?

A. That's right.

Q. Yes. Is it your view that you got all the information that you, as the anaesthetist, needed to get from the nephrologist in your discussions with Professor Savage?

A. Well, I can't remember what information -- I didn't record what information was given to me by Dr Savage at that time.

Q. Maybe we could approach it a different way. If you can think yourself back into 1995, did you, at that time, think that you were fully briefed, if I can put it that way, by Adam's nephrologists?

A. Yes.

Q. Thank you. The reason I ask you that is because Dr Haynes, who, as you know, is the inquiry's expert anaesthetist, feels that when he looks through the papers, there's not enough evidence of an adequate discussion of Adam's fluid and electrolyte management between you, as his anaesthetist, and Professor Savage,

as his nephrologist, before starting the transplant operation.

A. Well, with respect, Dr Haynes wasn't there and my memory of Dr Savage in 1995 -- now Professor Savage -- is that, at that time, and prior to that time and since that time, Professor Savage has been an excellent communicator and he's also -- and that means not only imparting information, but also making himself available to answering questions based on my concerns about the information, or if the information was incomplete or if I had another query that hadn't been contained in his original information.

So I understand -- I can see what Dr Haynes says when he reflects on the case. He wasn't there and I don't see where he can -- I can see why he's saying that because he says that something failed -- that the fluid is presumably what you're getting at, the renal failure.

Q. There's that, and there's urine and there's serum sodium results. Those are the sorts of issues which seem to have caused difficulty in the fluid management plans, if I can put it that way. And I suppose what he is suggesting is, if there were those difficulties, it must be because there was not appropriate discussion or communication between the nephrologists and the

anaesthetists.

A. Well, maybe I can help you.

Q. Yes.

A. I do not see the failure as being a problem from Professor Savage to me. I see the failure from me to act on the information that was given by Professor Savage as my misinterpretation, or misapplication or miscalculation of that information on my independent assessment of Adam, and therefore -- and basically led to the error which I have already admitted and alluded to.

Q. I understand that. Can I ask you this about the communications between the two of you --

THE CHAIRMAN: Sorry, can I just -- one very quick point. If Dr Haynes was looking for the information on the papers, he wouldn't really find it, doctor, sure he wouldn't? The paper trail is a bit thin? So if Dr Haynes says, "When I look at the papers, I don't see adequate communication between you and Professor Savage", you wouldn't really argue with that, because what you're --

A. I hesitate --

THE CHAIRMAN: You said, "Professor Savage told me everything I needed to know on the Sunday night and then maybe again on the Monday morning", but there's nothing

written down. So if that's what Dr Haynes means, then you accept that he's right, that he can't see it in the papers?

A. Well, I hesitate to comment on Dr Haynes' statement. I think that perhaps should be asked to him.

MS ANYADIKE-DANES: Well, we can put it this way: is there a record of the information that you sought from Professor Savage and Professor Savage gave to you?

A. No.

Q. Right. So then if Dr Haynes, or anybody else for that matter, is actually trying to see what the information was that was passed from the nephrologist to the anaesthetist and therefore available for the formulation of the fluid management plan, they would not be seeing the evidence of all of that in Adam's medical notes and records?

A. Well, that would follow logically.

Q. Yes.

THE CHAIRMAN: That doesn't mean that there wasn't communication, it means it's not visible.

A. Okay. It's a logical conclusion.

MS ANYADIKE-DANES: Can I ask you this, which is a very similar question, that I put to Professor Savage: have you changed at all your practices or practice as to how much you do record of those sorts of communications?

A. I can't point to a document to say that I introduced or anybody introduced a document to say that this is what you should do. I think, following Adam's death, my own personal practice has improved and that's something I've taken from my experience of Adam and that I must -- I do pay more attention to the comments, and requirements and orders given to me, instructions given to me by the patient's paediatrician, nephrologist or surgeon.

MR UBEROI: If I may assist as well to put the question fully in context. My recollection of Professor Savage's evidence was, effectively, that there are matters in 2012 which he would now record and take a note of, which it wasn't his custom and practice to do in 1995. And so that, I think, is the extract of evidence that's being quoted to Dr Taylor, perhaps, for his comment.

MS ANYADIKE-DANES: That's exactly it. Effectively, what I'm asking you is if we had this situation again, in the sense of you had a call in the evening from the patient's nephrologist, asking you will you act as the anaesthetist in a transplant procedure, and information was given to you -- you sought it, it was given to you -- would you be recording that now more fully than you did in Adam's case?

A. What I do now is what I have admitted I ought to have done then, which was to make myself available for

a face-to-face meeting with the physician, the paediatrician or the nephrologist prior to the transplant.

Q. And if you had done that, would you have recorded the information you were given during that face-to-face meeting now?

A. I would.

Q. Thank you. Then just to help, had you had such a face-to-face meeting in 1995, would you have recorded the information that you received during it then?

A. Would I have? Should I have? Sorry?

Q. Would you have? Would you have?

A. Well, I didn't.

Q. You didn't have the face-to-face meeting.

A. I didn't record --

Q. Sorry. Let me clarify it, Dr Taylor. You, I think, acknowledged yesterday -- and I think you just have now -- that what you should have done, what would have been most helpful is to have had a face-to-face meeting with Dr Savage, as he then was, sit down and have a discussion with him about Adam and his condition before you anaesthetised him. I think you've said that.

A. Yes.

Q. The question that I've put to you is: back in 1995, if you had done that -- which we all know you didn't do --

but if you had done that, would you have made any notes as to the information that you were given by Dr Savage?

A. I'm speculating here. I'm theorising what I would do now is to record it on this sheet in front of us. I would record the salient points that were relevant to me as an anaesthetist on this sheet, in the presence of the nephrologist during the face-to-face meeting.

Q. But in 1995, if you had thought it appropriate to have a meeting with the consultant nephrologist and you had had the meeting, would you have recorded any part of what you were being told during that meeting?

A. That's what I've said. I would take the sheet with me to the meeting and record the salient material that I required on the sheet.

Q. Thank you. Just on the point of information imparted to you, because you have, I think, frankly said that, so far as you could tell, you were given all the information that you really needed from Professor Savage, and it's a matter of your use of that information, if I can put it that way.

What was the information that you were given as to the sodium content of Adam's urine output?

A. I can't remember if that information was given to me.

Q. Did you seek it?

A. I can't remember if I sought that information.

Q. Would it be important for you to know as part of your formulation of his fluid management plans?
A. Yes, the volume and content of the urine would, as I've said before, affect the type and volume of fluid that I administered.
Q. So it would be important to know?
A. It would be.
Q. Thank you. You were in theatre, I think, when Adam was brought in?
A. Yes.
Q. Do you know who brought him into theatre? I know his mother was with him, you have said that, because he was crying and that's recorded on your sheet, and you have also recorded in previous witness statements that you actually anaesthetised Adam with his mother there. So we know that she was there. Do you know who brought Adam into the operating theatre?
A. Apart from his mother?
Q. Yes.
A. No. Can I state the normal practice?
Q. Yes, that would be helpful.
A. The normal practice is -- there's two, as I understand it -- you need to ask the nurses this. But either the nurse from the ward brings the patient into theatre, if that's what you're asking, and hands over the patient

through a nursing procedure to the nurse who's with me -- she's been called the "anaesthetic nurse". Not all nurses have this capital A, "Anaesthetic nurse"; some of them are the nurse anaesthetist, the assistant to the anaesthetist. It's not a single aspect of their job. But shall I call her the "Anaesthetic nurse"?

Q. Okay, yes.

A. If you understand that that is not a --

Q. I do.

A. -- noun, an adjective, if I'm right.

Q. Yes, understood.

A. The anaesthetic nurse either -- sorry. Case 1, the nurse from the ward, the ward nurse, brings the mother and the child into the operating room and there's a handover between the ward nurse and the anaesthetic nurse of all the patient's details, the consent form. I won't go through them unless you want me to.

Q. No, it's a handover, I understand that.

A. And then or simultaneously I have an opportunity to then discuss with my patient, who's the child, Adam, and the mother, or the parent -- while the nurses are talking, I can talk. So that's often the way it's done.

Q. So far as you can help us, is that what you think happened on the 27th?

A. Can I give you another scenario?

THE CHAIRMAN: That was option 1.
A. I don't know what happened, but I'm giving you the two options.
THE CHAIRMAN: As the most likely -- sorry, give me option 2.
A. I think option 2 is most likely.

The anaesthetic nurse -- small "anaesthetic" nurse -- will go down to the ward and do the nursing handover on the ward -- so that's already done. She knows the patient, she knows the consent form, she knows everything that's relevant and she brings the patient and the medical records to the operating room with the patient, Adam, and his mother.

Q. Were you indicating that although you can't remember which of those two options actually happened on 27 November, you think that that second option was the more likely one?
A. Out of hours, with ward nurses being busy and less of them, the common practice is for the theatre nurses to assist the ward, rather than having the ward lose a nurse --
Q. Yes.
A. -- briefly. The anaesthetic nurse will go down and do the handover on the ward and that makes the process more streamlined. It assists the management of patients

in the hospital. So I believe, in answer to your question, that that was the scenario that happened, but I cannot be sure.

Q. I understand that. You have mentioned the out of hours, and this is something I've been asked if I might clarify with you. As I understand Professor Savage's evidence, when he first received the offer for the kidney for Adam, he was thinking in terms of if this could be done within a 24-hour period and that would mean, given when the tissue match was going to come back, you're thinking about a procedure, 1.30ish, something like that.

And then I think he said that between you, as an anaesthetist, and the surgeon, Mr Keane, that wasn't thought to be a terribly sensible idea or very wise because that would have people who were tired conducting such surgery, and it would be better if the surgeon and anaesthetist were a little rested and then the surgery was scheduled for 6 o'clock in the morning.

And in fact, as we have seen from his medical notes and records, there is actually a "6" recorded by Professor Savage in the notes and records, which at some point is corrected to a "7". And that's in fact what happened, it was then put back to 7 o'clock.

Now, the question that I'm putting to you is: do you recall whether you had any discussions with Mr Keane

about the surgery going either back from some time in the very early hours of the morning to 6 o'clock in the morning? That's 1. And 2, from 6 to 7?

A. Well, the short answer is I don't recall any conversation with Mr Keane --

Q. At all?

A. -- prior to the surgery.

Q. At all? Do you think you had any and you just don't remember them?

A. No, I don't think I was speaking to Mr Keane before I and he attended theatre that morning.

Q. Then how were you told that the surgery was actually going to be take place at 6 o'clock in the morning; who told you that?

A. Dr Savage -- Professor Savage.

Q. I understand. Who told you that the surgery was not taking place at 6 o'clock, it was actually going to take place at 7 o'clock?

A. I can't remember. But can I be helpful?

Q. Yes.

A. I'm trying to be helpful. If you look at the fluid balance sheet from the ward -- I don't know what number it is -- but the last fluid given to Adam was 0500.

Q. Yes.

A. That's a critical number.

Q. Yes.
A. Because I cannot provide or induce anaesthesia safely in a child -- sometimes we do it in an emergency with a full stomach, but the guidelines at that time and still today are you must fast for two hours after a clear fluid administration into the stomach.

So somebody, somehow made a decision to give Adam clear fluids up until 5 am, which meant that the operation could not start before 7 am, without taking special precautions for anaesthesia. So that might have been -- I'm trying to help you by saying something around that might have been the reason why his operation didn't start until 7 am.

Q. I understand.
A. But that doesn't help you find out who made the decision.
Q. No, it doesn't help who made with the decision, but it does help a little bit with the chronology. It's a matter that was actually put to Professor Savage -- although he couldn't help -- about how it had come to be. But he recognised that if the fluids -- or if things were going to go on until 5 o'clock and you were going to have a two-hour gap, then necessarily somebody had either decided before 5 o'clock that the operation wasn't taking place until 7, or they hadn't decided

that, but a consequence of that was that it had to take place no earlier than 7 o'clock. So I think that's where we were with Professor Savage, and I'm not sure that you can advance it any further forward than that.

A. No.

Q. Before I had asked you that question about timing, simply because you mentioned it, when Adam came into the theatre were you concerned that he might be dehydrated?

A. Yes. Again, this has been reviewed many times by myself and by the experts.

Q. I know, but if you could go back to 1995 and not concentrate so much on the experts' analysis of it, from your point of view --

A. It's hard to remember because of the confusion that --

Q. I do understand that, that having read so much about it afterwards, it's actually difficult sometimes to distill your own independent thought from 1995, but if you can try and help us with that and to see whether, at that time, you thought Adam was dehydrated.

A. I believe my view at that time was that there was a fluid deficit because he had been denied -- he had been fasted, he had been denied fluids for two hours.

Q. Okay. Pausing there, though, what did you think would be the effect of his peritoneal dialysis on his fluid balance -- forget the issue about sodium content for the

moment -- on his fluid balance.
A. Well, I have to defer to the other experts on the dialysis and fluid balance.
Q. No, no, sorry. I don't want you to defer to them, I want you to tell me what you thought at the time or knew at the time would be the effect of peritoneal dialysis on Adam, on his fluid balance.
A. My understanding is that peritoneal dialysis equilibrates, equalises the sodium and other electrolyte contents and fluids.
Q. And fluids. So why did you think, since he'd had his dialysis, he was in deficit?
A. My understanding for Adam was that the dialysis didn't allow fluid to be taken up into his body or that there was little to be taken off his body, but I didn't have access to his dialysis records and I believe that was my thinking at the time.
Q. So when you told me before that you'd got all the information you thought you needed, have you identified now, when we start to look at this in more detail, an aspect of information that you didn't have?
A. I believe I had the information either verbally or written. I have no information -- I have no record of how I had the information. My recollection, for what it's worth, is that it was given to me verbally that his

dialysis had been stopped and had not taken off fluid. That may not be what I was told, but that is what I interpreted in my miscalculation of his balance.

Q. So, in some way, you gained the impression that although he had undergone peritoneal dialysis, for various reasons that had not been available to have the effect which you thought it should normally have, which is to equalise both the sodium content and the fluids? Is that what you're saying, essentially?

A. I think the dialysis is to be considered over the 24-hour period, as Professor Savage outlined, from 8 am the previous morning to 8 am. It's a 24-hour fluid balance cycle that I was using. So therefore, Adam normally had 1,500 ml of feeds overnight during his dialysis, which would tend to equilibrate his fluid and sodium, and then two boluses of feed during the daytime, two 300 ml boluses. That made his daily requirements of fluid 2,100 ml a day. His dialysis was not continued during the day, but only at night, when his feeds were mainly given at night.

So my understanding, if one looked at the 24-hour period at which Adam was coming towards the end of, at 7 am, that his fluid balance for that 24-hour period would have been in deficit by an amount between 300 and 500 ml. That was my understanding.

MR UBEROI: In fairness to the witness, could he perhaps be reminded of the context of Professor Savage's evidence on this? The witness has stated that he would have taken the information from Professor Savage, and the figures he has just given there in fact accord with Professor Savage's evidence to the inquiry two days ago.

MS ANYADIKE-DANES: Well, it's in Professor Savage's -- as we took him to -- final witness statement and his fluid balance chart. Maybe we'll return to this, and then we can give you that information and you can reflect on it because, as you -- I think you might have been in the chamber when that information was being given -- but there are quite different results if you look at the --

A. Yes.

Q. -- the picture over the full 24 hours, as if you look at it over the period of his admission. In fact, perhaps we can just call up Professor Savage's chart, since we're in that territory. Give me a moment, I'll try and find out where it is. It will be witness statement 002-5, page 7.

There we are.

MR UBEROI: Before this chart is gone into, if it could be perhaps clarified for the witness whether he's being asked to recall his calculation at the time, based on the information he received from Professor Savage at the

time, or whether he is in fact being asked to calculate what his view of the right answer is today in 2012.

MS ANYADIKE-DANES: He's not actually being asked to calculate anything. What I was trying to find out from him was why he thought Adam was in deficit, and why he felt he was in deficit notwithstanding the fact that he had undergone his peritoneal dialysis. That was the context in which I was asking him -- those were the questions I was asking, as a result of which Dr Taylor was taking me through the effect of looking at things in a 24-hour cycle, as opposed to looking at matters from his admission, and that's what led us to Professor Savage's table. But I'm happy to deal with this at perhaps a later time when we've had an opportunity to reflect on that.

That's what I was asking you. What I really wanted to know -- and it started from my question as to whether you thought Adam was dehydrated -- what I was trying to find out is why you, in 1995, thought that Adam was in deficit.

I know that there has been any number of calculations, and assessments and analysis of his records and people have given their own views on it.

A. Yes.

Q. I put those to one side for the moment, because what

I was really interested in is your thoughts at that time and why you had them.

THE CHAIRMAN: Sorry, if the point needs to be pursued, I'm happy with that, but I think the doctor said he believed that there was a fluid deficit and that was due to Adam having fasted for two hours.

MS ANYADIKE-DANES: But I then went on to ask him -- you're right about that, Mr Chairman -- whether he agreed that the effect of peritoneal dialysis was to normalise, which he had said it did. So I was trying, therefore, to tease out if the effect of peritoneal dialysis is to normalise, why Adam was in deficit. That's what I was trying to understand, why he thought that at the time.

That's why he was giving me his answers about: it rather depends if you take the 24-hour cycle or you take a position from admission.

We can move on from it, and if it's necessary and someone wants it clarified, I might revisit it with you when you've had an opportunity to look at Professor Savage's chart -- and your own, for that matter -- that you provided.

THE CHAIRMAN: Perhaps the other wrap-up question on that is to ask the doctor if, to the extent you thought Adam was in fluid deficit, did that affect the fluid management regime which you put him on to?

MS ANYADIKE-DANES: I was going to come to that in slightly more detail, yes.

THE CHAIRMAN: Because Professor Savage says, in his eyes, the extent of any fluid deficit would not affect --

MS ANYADIKE-DANES: Yes, but it's Dr Taylor that's going to make the calculations and administer the fluid, so I was going to come on to ask him about that point.

I wonder, though, before I do come on to ask you that point -- because it goes into something else that Professor Savage led us to, which was CVP and so forth, and that's an area I'd like to take you to in a little while. I'm still in this sort of section of the communications amongst the teams and so forth.

I wondered if we could pull up an extract from the report of Professor Koffman, which is 094-007-033. This is a report that Professor Koffman provided for the PSNI. If you could see at paragraph 3.5, what I'm really dealing with here is this whole area of communications between the members of the transplant team, if I can put it that way. That's what I'm trying to find out, as to what happened at the time. This is Professor Koffman discussing the significance and importance of it. He says:

"The surgeons and the anaesthetists work as a team during the procedure. This is vitally important as a

correct level of venous filling and blood pressure are required in order to provide the newly transplanted kidney with adequate blood supply. The surgeons will frequently ask the anaesthetist to provide extra fluid input in order to optimise a perfusion in the transplant kidney."

Then he goes on to talk about a dialogue between the two teams in response to excessive blood loss and so forth. And he says:

"It is not usually the role of the surgeon to decide on the nature of the intravenous fluid replacement and this is virtually always left to the anaesthetists. The surgeons role is to decide about whether to replace blood loss with a blood transfusion or to use alternative fluids."

And so on. And then he talks about what the surgeons have to be aware of.

Now, this is moving into when the actual surgery would start. But what I'm interested to hear from you is whether, knowing that the surgeons, as this seems to indicate, like to have a certain amount of fluid there to assist with the perfusion of the kidney -- and that was something that you were concerned yourself about -- how much that influenced your fluid management plan for Adam at the very beginning.

A. Sorry? You told me quite a bit.
Q. You see the third sentence:
"The surgeons will frequently ask the anaesthetist to provide extra fluid input in order to optimise a perfusion in the transplant kidney."
Do you see that?
A. Yes, I agree with that.
Q. What I'm trying to discover from you is how much you were concerned about the need to be able to respond to providing extra fluid to optimise a perfusion in the transplant kidney, when you were formulating your fluid management plan for Adam.
A. Well, I think I've stated that it was my desire to correct any deficits and ensure that I had replaced the adequate amount of fluid that I felt Adam needed, and to make sure I kept up with any ongoing losses, including urine, and was in a position to ensure that, as the kidney was attached and before the clamps were released, that in fact not only was all the circulatory and fluid balance achieved, but that I had actually gone somewhat ahead of the actual circulation and ensured that there was more than enough fluid -- an idea we call hypervolemia, where we actually increase the volume of fluid in the circulation. That would be my normal practice.

Q. Let's just pause with that first point that you made, which is what you would be trying to do was to recover any deficit.
A. Yes.
Q. Now -- this goes back to the point that the chairman was asking you -- the deficit that you thought he had at the time you were going to induce anaesthesia, that was, what, 300 to 500 ml, something of that order?
A. Yes.
Q. And how quickly did you think or what rate did you think you needed to recover that deficit?
A. Well, it was in my plan to recover that very quickly and I now recognise that that was an error because I used fifth normal number 18 to correct the deficit, and I shouldn't have.
Q. There are two things going on. Let's take them in stages. Firstly, why was it in your plan to recover a deficit of something between 300 to 500 ml very quickly; why did that have to be recovered very quickly?
A. Well, I can't remember in Adam's case, but I think there were multiple reasons for that. Primarily it was the fluid balance, the fast, the fact that he normally got 500 -- sorry, forgive me -- 1,500 ml of fluid overnight and the fluid balance sheet shows that he got 970 ml of fluid prior to his transplant. And therefore, a very

simplistic calculation, I accept, was that he was in deficit of approximately 500 ml because of that.

Q. No, I appreciate that you, for whatever reason, came to the view that he was approximately in deficit of 500 ml. That I appreciate. What I'm asking you is why you formed the view that such a deficit needed to be removed very quickly.

A. Because I felt that I had to prepare Adam in a short time for the process of implanting a kidney --

Q. Well --

A. -- which is a different process from any other operation, because it's a process where we deliberately expand the patient's circulation and make sure that there were no other fluid deficits going on.

Q. That being the case, how quickly did you think a deficit of 300 to 500 ml had to, in the case of Adam, be recovered and why?

A. Remember, I had miscalculated Adam's urinary losses. At this stage, I had wrongly assumed, for whatever reason, I can't explain, that he was passing up to 200 ml an hour of urine. That was an error, I've stated that it was, and therefore in my confusion or whatever, because of that error, I was now in a position that I had to make up the losses that I had miscalculated for his urine losses, and that was the reason why I rapidly

infused a solution of what I thought to be the replacement for his dilute urinary losses.

Q. I understand. So because you thought he was losing 200 ml of dilute urine, you felt it was necessary not only to replace that because that's what he was losing over an hour, with a similar fluid, but also you had to make up what you thought was somewhere between 300 and 500 ml, which was his deficit?

A. Correct.

Q. And you felt you had to do all of that within what period of time?

A. Well, it was during the time that I was performing and my assistant was performing the anaesthetic procedures prior to the surgery starting, from 7 to 8.

Q. I know when you were doing it, what I'm trying to ask you is why you thought that over the period of half an hour, you needed to infuse 500 ml, for example, which is effectively catching up everything of the deficit; why did that have to be done that quickly?

A. Well, as I'm attempting to explain, it's because the surgery is about to start. Once the knife to skin -- once the surgeon starts going, I'm going to be prepared. I feel I was preparing myself for other losses, including blood, and further urine losses, and my assumption -- my wrong assumption -- was that his

ongoing renal losses would continue throughout the case. So I was in a position that I had to catch up, and keep catching up through the operation and certainly in the early part of the operation. I now recognise that that was a mistake and I ought not to have done that.

Q. Can I ask you something, because you have assumed, from what you've just said, that his urine losses would have been constant. So every hour that goes by -- I know that you have accepted that that was an incorrect figure, but your view is that every hour that goes by, he's losing that, as it turned out, you believed 200 ml an hour. Whatever it was, you were working on the assumption that that's what he was losing constantly every hour?

A. Yes.

Q. Dr Coulthard has suggested that it's quite possible, as a nephrologist, that when the surgery starts, that the kidneys can respond -- or the native kidneys can respond to that by actually shutting down and not producing any urine at all. You'll have seen that from his fluid balance chart -- which I will take you to if we need to -- but you'll have seen that he suggested that that is a possibility?

A. Yes.

Q. And what I want to ask you is: when you were discussing

Adam's condition and what that would mean for what you were trying to do with him, which is to provide an appropriate fluid management regime, did you have any kind of discussion with Professor Savage about that possibility?

A. No. I hadn't heard of that theory before.

Q. You've never heard of that?

A. No.

Q. Okay. Dr Taylor, you've also said that you should have taken or had bloods sent for an electrolyte test at the beginning, I think you have said that. And one of the things I was asked to clarify is, if you had done that at the beginning -- that's at the time when you're putting the lines in -- sent it off to the laboratory, if you know what the turnaround time for getting a result would have been. This would have been, roughly, at about 7 o'clock or so.

A. Well, there was a variable amount of time that a blood sample would take to turn around at that time on a Monday morning, and I could give you an estimate between 30 minutes and two hours. That would be the extreme limits.

Q. What I'm doing is trying to ask you, out of your experience -- you're the anaesthetist, you were, I presume, a busy consultant paediatric anaesthetist in

the Children's Hospital in 1995 -- what is your experience of typically how long it took to get a sample back out of hours?

A. Between 30 minutes and two hours.

Q. Thank you. And if you had wanted it urgently, since you actually were in theatre, how would you have tried to ensure that?

A. Well, I'm thinking back. We now have a pneumatic tube system, which has changed things enormously. That's recent. So that has improved the turnaround time, so I can now get an urgent sample within maybe 20 minutes, completely turned around. In those days, there were so many variables in getting -- bleeping a porter, having a porter attend. I believe -- and you'll need to check this -- that only one porter was available on a Sunday night until 8/9 am. So to get one porter for the whole Royal site, not just for children's, there -- which was my belief -- that could take a short time if the porter was in the vicinity or it could take ... I think that's the factor that would prolong it. It's not a lab factor, it's not a blood letting, a blood sampling factor, it's the factor of the portering.

I belaboured this in my police statement and before, and this was an irritation and it should not have impacted on the reason why I did not do a sample, and

I acknowledge that as a mistake.

THE CHAIRMAN: So if there's a delay, it's delay in getting the sample to the lab, it's not in the lab doing the test?

A. That was my experience.

THE CHAIRMAN: Then when the test is done, do you get a phone call back or do you get a sheet back? In other words, do you need to wait for a porter again to walk it back?

A. No, a porter is not needed. Sometimes a phone call is immediate, sometimes we have to contact the lab if the lab technician's busy. At that time, I don't think there was a hard and fast rule that all samples would be immediately phoned back. Sometimes we had to request the -- we sometimes had to phone the lab technician and ask for it.

MS ANYADIKE-DANES: Since you mention the lab and out of hours, there was a point that I think Professor Savage wasn't quite able to help us with, which is: which is the lab it's going to at 7 o'clock in the morning?

A. That would have been the main Royal labs on the main site.

Q. Did the Children's Hospital have its own lab?

A. Yes.

Q. So if you had been performing this operation, say, at

10 o'clock, where would the sample have gone then?
A. I can't remember when the Children's Hospital biochemistry lab stopped. I believe there's still a haematology lab for taking blood samples to do with the blood count and the blood parameters, still in the Children's Hospital between the hours of 9 to 5, let's say. But at some stage the biochemistry element of that lab stopped and moved to the main lab for issues to do with quality control and ...
Q. Sorry, what does that mean, issues to do with quality control?
A. When labs are -- when you establish a laboratory, you have to ensure that all the samples are accurate.
Q. Yes.
A. So that requires a lot of quality control measures to make sure the samples are always to a high standard so that doctors can rely on them. So maintaining the quality standards of a lab, a small lab like the one present in the Children's Hospital, was one of the factors, I believe, that was behind closing the biochemistry element, sampling in that lab, and moving it to the main lab. But I'm not an expert on laboratory management, so that's my understanding.
Q. Did it make any difference in turnaround time, the move to the main lab for out of hours?

A. Well, yes, because we were dependent on portering. There was no pneumatic tube system.

THE CHAIRMAN: And there's only one porter on site?

A. I don't -- sir, that was speculation. I cannot confirm.

THE CHAIRMAN: There aren't any porters?

A. There was one porter on site out of hours. I wish that to be clarified by somebody who knows what they're talking about.

THE CHAIRMAN: Do I take it from that that there weren't many porters inside?

A. I'm reluctant to speculate further, having made a mistake already.

THE CHAIRMAN: Okay.

MS ANYADIKE-DANES: But in any event, if you had access to the children's lab, as I understand it, that is quite proximate to the operating theatre?

A. Yes.

Q. So that would give you a very short turnaround time?

A. There's no point in doing a blood sample anywhere if you can't rely on the result. So I would want a lab, which I could rely on the result, and at that time it was the main lab.

Q. Thank you. I wonder if we can now consider the issue of the urinary catheter. So far as you're concerned, what are the benefits of inserting one at the start of the

procedure?
A. Primarily to monitor the urinary output.
Q. Sorry?
A. Primarily to monitor the urinary output.
Q. And was the urine output something that was important for you to know?
A. Yes.
Q. Did you want an urinary catheter inserted for Adam?
A. It is my usual practice to request that a catheter is inserted when a patient has an epidural because the epidural can impact on the patient's ability to void urine or for major surgery.
Q. And why wasn't one inserted in Adam?
A. The practice in my hospital was for the surgeon to be notified that a catheter be inserted.
Q. Well, if you wanted one, did you ask the surgeon to insert one?
A. I can't remember my conversation with Mr Keane on that morning --
Q. Well --
A. -- but it would be my usual practice to talk to the surgeon about a catheter.
Q. If you wanted one, why wasn't one inserted?
A. In my practice -- different from Dr Haynes where he said he would insert one -- the practice was not for the

anaesthetist to insert a catheter in my hospital, so my practice is to request that the surgeon consider inserting an urinary catheter. I cannot remember if I had that conversation with Mr Keane.

Q. But I think what you're saying is it was a way of monitoring the urine output; it was important for you to know the urine output; and in your normal practice you would want one?

A. Yes.

Q. What I think you're going on to say is you can't actually remember why that wasn't done?

A. Correct.

Q. Do you remember any discussion at all about the insertion of catheters with Mr Keane?

A. No, and I haven't recorded the discussion, or if there was a discussion.

THE CHAIRMAN: Can I take it, doctor, that there must have been some conversations between you and Mr Keane before and during the surgery?

A. Oh, I can't imagine that we didn't speak to each other.

THE CHAIRMAN: I can't imagine that either, so what you're saying is you don't recall what they were; for instance, on urinary catheter, do you expect that you would normally have asked for that?

A. That's my usual practice.

THE CHAIRMAN: But you're honestly saying -- specifically you can't say to me today, "I remember asking Mr Keane for it"?

A. That's correct.

THE CHAIRMAN: But if you asked for it and it wasn't inserted, are there not two options? One is you ask him, "Why not insert it?", and the second option is to say, "Look, I'm not sure I can go ahead", or would you say, "I can't go ahead without it"?

A. The decision to insert a urinary catheter is a surgical decision in my hospital. I think your questions are perhaps better answered by Mr Keane, if he can be helpful.

MS ANYADIKE-DANES: We can see what he did say at witness statement 006-3, page 13, I think, and if we go to the answer to 24(a), which is a direct question:

"State whether it was your decision not to insert an urethral catheter."

We saw the different sorts before commencement of surgery:

"It was my decision not to catheterise and I believe it was the correct decision. I decided to allow the bladder to distend naturally."

If we go back to the full page, so we see what happens. Then it says:

"State whether you would have had any objection to Dr Taylor inserting a urinary catheter into Adam at the start of the case. If yes, please give a detailed explanation."

And the answer to that appears to be:

"No, I wouldn't have had any objection. I did not think it was necessary."

It may be because of the way the question is phrased, it tends to suggest, that question, that you could have inserted it and the answer doesn't seem to suggest that that was something you couldn't do. But it's our phrasing of it and we'll put it to Mr Keane, but what I think you're saying is in your hospital, the practice would be that any catheter that was going to be inserted in that way would be a matter for the surgeon; is that what you're telling us?

A. Yes. Catheterisation in children is not something I would routinely do. I would have little experience of catheterising a young child.

Q. And I think the chairman was asking you or putting to you what your options might be. Dr Haynes' view is that the issue of catheterisation, unless there is some contra indication -- and Mr Keane has been specifically asked that and has said in his witness statement that there wasn't. He had his own reasons which he goes on

to say, he wanted the bladder to distend naturally with urine. That was his reason for it.

But in any event, what Dr Haynes has said is that if the anaesthetist wants a catheter so that the anaesthetist can measure the urine and monitor it, and that is in the interests of the health of the patient, then that is something that should prevail, effectively, is what Dr Haynes was saying.

It may be that you can't help us very much further forward because you can't actually remember enough about what happened at the time, but what I'm trying to get at is that since you thought it was important, I'm not entirely sure why you were not more forcefully requiring it to happen, because we know it didn't happen.

A. Yes. Can I be helpful?

Q. Yes, please.

A. Dr Haynes is a paediatric cardiac anaesthetist.

Q. Yes.

A. He works, I believe, exclusively in the paediatric cardiac surgical department of the Freeman Hospital. I do not know if he has perhaps taken his practice in the paediatric surgical anaesthesia department and maybe applied it to the complexities of urological paediatric surgery, and perhaps -- you'll have to ask him. All I'm highlighting is that he works in the

paediatric cardiac surgical unit, whose patients don't necessarily have paediatric urological conditions, and he maybe is seeing his practice where he inserts, clearly, urinary catheters as part of the preparation of an infant and child for cardiac surgery, where it is certainly important to monitor the urinary output as a measure of cardiac function during and after cardiac bypass and cardiac procedures.

I don't know if that's helpful to you, but I just wanted to possibly help the inquiry to see some differences between experts.

Q. Yes, I understand that you have different practices, but that wasn't quite the way I was putting the question to you. The way I was putting the question to you was that it's your responsibility to monitor Adam's urine output because his urine output affects his fluid balance and that is your responsibility.

So what I was putting to you is: since all of that is your responsibility, unless there is some very good reason why it shouldn't happen, I was wondering why you weren't more forceful as to requesting something be done that fell within your responsibility and which you thought was important. That was where I was coming from.

A. Well, can I go back to my original answer?

Q. Yes.
A. Sorry. It is my practice to always ask for a urinary catheter when a patient has an epidural or for major surgery. I cannot state if I was happy or unhappy with the situation because I don't remember, but it would have been my normal practice to request a catheter be inserted.
Q. Thank you. Without one, what were you going to do about monitoring his urine output for the purposes of your fluid calculations?
A. Well, I believe, on reflection, that this was another element of care that I was -- that left me unable to reassess and review my fluid administration during Adam's procedure.
Q. Thank you. Can I ask you this: if that situation were to arise now, what would you do now?
A. Since then I have anaesthetised several patients for renal transplant, including polyuric patients. It's been difficult, obviously, to think about that, but they've been successful. And I believe the CVP, the sodium and the careful fluid assessment and administration, are the key elements to survival of these patients and good care of these patients, and that's obviously why I've reflected on my practice.
Also, the urinary output is a key element for the

intraoperative and post-operative management, but I think in terms of importance, the central venous pressure, and the careful fluid monitoring and the electrolyte monitoring perhaps are more important in the order of magnitude of the factors that can be used to assess.

So although the catheter is important, I don't think, in my experience, since then, it would be a show-stopper, but I would always request that a urinary catheter is inserted for a patient with an epidural or for major surgery. So I would like a catheter to be inserted, I would record the reason why it wasn't inserted if it wasn't inserted.

I think to insist upon it to the point that I refused to proceed with this is a difficulty. I don't know if the decision to -- are you asking would I stop the operation if the surgeon refused to put in a catheter?

Q. No, I hadn't asked that.

A. Then I won't answer it.

Q. I'm happy if you answer that. No, I hadn't asked that. What I wanted to know was what you would do now if that situation arose, and you were telling me that since then you have actually reflected on your practice, and I think you were saying that you would always ask for

one now and if it didn't happen, you would record the reasons why it wasn't going to happen?

A. Yes.

Q. But you can say how important you think it is and whether there would be any circumstances in which you would say, "I don't think we should proceed".

A. Sorry?

Q. I said I'm happy that you go on in the way that you were starting to answer when you asked if that's what I wanted, which is to say whether there are any circumstances in which if there was no urinary catheter inserted, you would say, "I'm not happy to proceed".

A. Um ... Yes.

Q. Thank you. There are some circumstances in which you would say that?

THE CHAIRMAN: I think the witness is confused.

MS ANYADIKE-DANES: Sorry.

THE CHAIRMAN: Let's take a break and if you need to come back to the point at all, we can do it after the break, is that okay, in about 15 minutes.

(11.35 am)

(A short break)

(11.50 am)

MS ANYADIKE-DANES: Dr Taylor, just before we broke I think you had indicated that there were some circumstances in

which if a urinary catheter had not been inserted, you would say that you were not happy to proceed. I wonder if you could help by just indicating what those circumstances might be.

A. Sorry, I've lost the context of the ...

Q. I was asking you about but the insertion of a urinary catheter and you had accepted that the measurement and monitoring of urine was important, it was part of how you discharged your obligations in terms of fluid management; you thought that was important; you said in your hospital that that was normally something that was done by the surgeon; you would ask for it to be done.

Nowadays, if that didn't happen, you said that you would record the fact that you had asked it and it hadn't been done.

A. Yes.

Q. Then I went on to ask you: were there any circumstances in which, if the surgeon declined to insert the catheter, you would say, "Well, I'm not happy to proceed". And you had said, yes, but we hadn't got into what those circumstances might be and I think, to be fair, there was concern that you might have answered "yes", being slightly confused as to the question.

Now I ask you: are there any circumstances in which, if the surgeon told you, "I'm sorry, I'm not going to

put that catheter in", you would say, "I'm sorry, I'm not happy to proceed"?

A. It's a bit of a hypothetical situation because it hasn't happened, but let me try and be helpful. The way I work is not to escalate what you've described to I won't, you won't, and it sounds like we're not going to meet in the middle. That is not the way I practice medicine.

Q. I'm trying to -- sorry, I wasn't doing it from the point of view of having a sort of stand-off about it. What I was trying to have your assistance with is some way of assessing how important the insertion of a urinary catheter might be by trying to see if there were certain circumstances in which you simply would not be happy to proceed unless that were there, not because you wanted to get into a confrontational situation with the surgeon, but just it was so important for your role in terms of the patient. That's what I was actually trying to do. I didn't mean to make it sound confrontational.

A. I think in that hypothetical situation, which I haven't faced yet, is that I would make my arguments to the surgeon; the surgeon would give back the reasons why he didn't accept my arguments for inserting a catheter; I would document the reasons and defer to the surgeon. I believe that's what I would do if I was faced with that.

Q. Thank you.
A. But I would be assertive enough to ensure that my arguments were understood and listened to. It's not that I would defer without being assertive. I'm not that submissive.
Q. I understand. Then I want to move on because this is a whole area that we're talking about, communications. I want to move on now to the anaesthetic personnel. That's you, of course. Part of the personnel is you, as a consultant paediatric anaesthetist.

Now, when you gave your first inquiry witness statement, you gave a certain view as to the basis upon which you were prepared to be involved in providing anaesthesia for Adam. I wonder if we could pull up your witness statement WS008-1, page 4.

It's the answer to question ... I think it's 2(i), there. Thank you. What you say there is:

"I only agreed to provide general anaesthesia for Adam with an experienced senior registrar, Dr Montague, experienced theatre nursing staff and the ready access to experienced surgeons and nephrologists, who were in theatre dress and present beside me in theatre for large parts of the procedure."

Now, just so that we're clear, what do you mean by saying, "I only agreed"; who are you agreeing that with?

A. Well, you're asking me to remember. It ... Presumably it referred to my discussion with Dr Savage, Professor Savage.
Q. Okay, and what does that mean? Does that mean if you didn't have all those elements that you wouldn't be prepared to provide the anaesthesia for Adam's transplant surgery?
A. Well, that's right. I would not take on -- as opposed to doing the case on my own with only a surgeon, I think that is what I referred to, that I would require access to the knowledge and skills of other people for large parts of the procedure.
Q. Can I ask you about the experience of Dr Montague, who is part of the precondition, if I can put it that way. So far as you are aware, what was Dr Montague's experience at that time?
A. I would need to refresh myself -- I think he was a senior registrar.
Q. Let's pull up his witness statement, 009-1, page 4. Okay. If we can look up at the top, he's setting out his experience. Just starting:

"I had never been involved in a renal transplant procedure in a child prior to Adam."

He says for that period of a year he was a research fellow, based exclusively in the lab, so that takes us

up to August 1995. Then from May 1995 he was carrying out clinical research, and then from August to November 1995 he was working in adult ICU and did not look after any children. So from January 1995 until November 1995 he had not actually anaesthetised any children, supervised or unsupervised.

If we just pull up the whole page, we can see what it goes on to say. Then he's asked:

"State your experience and involvement in anaesthesia for renal transplants in children less than six years."

The answer to that is quite straightforward because he hadn't been involved in a renal transplant in a child until Adam.

So what then is the expertise that you are ascribing to Dr Montague that made him an important member of the team, or part of your preconditions for anaesthetising Adam?

A. Well, there are generic skills that anaesthetists have. Having got to this stage of being a senior registrar, he would have some generic skills about drawing up drugs, about inserting peripheral venous lines, central lines. Working in intensive care is an area where one gets a lot of practice in the insertion of lines and epidural catheters, so he was experienced from the generic

anaesthesia point of view. He was not experienced from the paediatric anaesthesia point of view, but I was there to supervise him for that role.

Q. Does that mean what you really were saying is, "I need an assistant anaesthetist"?

A. Yes.

Q. It didn't really have to be Dr Montague, you just needed an assistant anaesthetist?

A. Yes.

Q. Thank you. Then I wonder if we can move on to the question of the trainee anaesthetist. You said in your witness statement, 008-2, page 10 at (d) up at the top, in a query about the time and the stage of the transplant surgery that Dr Montague left the operating theatre. You say:

"After the start of the surgery, another trainee whose name I cannot remember came on duty to assist me and I was able to let Dr Montague go ..."

Why can't you remember who that trainee was? You have remembered so many other things about what was clearly a tragic event; why can't you remember the person that was assisting you for at least half of the procedure, if not maybe slightly more?

MR UBEROI: Sorry, I take issue with the -- I am not sure it's entirely accurately put. I do think, in fairness,

Dr Taylor's evidence has often been that he can't remember of the detail of this procedure, given that it was 17 years ago.

MS ANYADIKE-DANES: Sorry, I'll rephrase that.

Why can't you remember the identity of somebody who was working so close to you and assisting you for at least half of the procedure?

A. I can't explain. Until Dr Montague's statement, I didn't know that Dr Montague had left the theatre. I expected, assumed, that a trainee was with me the whole time. Dr Montague had indicated that he left theatre after the start of surgery and I would not have let a trainee leave theatre until there was a replacement with him. So I cannot remember the name of the replacement trainee that was with me for the rest of the procedure.

Q. Does that mean that you don't independently remember that there was a trainee, but you conclude there must have been somebody who came after Dr Montague because you wouldn't have let Dr Montague go without there being a trainee or some assistant; is that what you mean?

A. The memory is vague. I was obviously concentrating on monitoring and looking after Adam. Dr Montague indicated he left and I do not remember the events around that time.

Q. I understand that. But closer to that time, when you made your statement, your deposition for the Coroner, and then even afterwards when you were giving your interview to the PSNI, there's no reference to anybody other than Dr Montague. So although now we are many years away from that date, we weren't so far away when you were making your statement to the Coroner. In fact, I think you gave your evidence to the Coroner on 21 June, I think it was, 1996.
A. Could I see the Coroner's deposition, please?
Q. Yes.
A. I'm confused on this area now.
Q. Sorry, we're just looking for the reference, just give us a moment. 011-014-096. So you wanted to see that.
A. I was looking for a reference to Dr Montague, just so I can clearly decide if I remembered him being there.
Q. That's all right.
THE CHAIRMAN: Could we go on to the next page, please, 97? There is no mention there. 98. (Pause). 99. (Pause). 100. (Pause). 101, please. 102. (Pause). 103. (Pause). 104, please.
A. Sorry, I can't find a reference to Dr Montague.
THE CHAIRMAN: No, there's no reference to Dr Montague by name, nor to an assistant.
MS ANYADIKE-DANES: And would you accept that the first

reference to an assistant is after Dr Montague makes his statement to the PSNI, when he says that he didn't stay for the full length of the surgery?

A. Are you going to show that?

Q. You want to see Dr Montague's statement to the PSNI?

A. Sorry, can you rephrase that?

THE CHAIRMAN: The timeline that's being put to you is that you gave evidence to the Coroner that you were there, didn't refer to either Dr Montague by name or to an assistant.

A. Yes.

THE CHAIRMAN: You then gave an inquiry statement in which you referred to him. We obtained a statement from Dr Montague in which he said he left at about 9 o'clock, say. And when that was raised with you in the statement that was shown to you a few minutes ago, at that point, for the first time, you referred to another trainee.

A. Yes.

MR DUNLOP: In relation to the question he was asked -- what was asked in relation to Dr Montague was by Ms Anyadike-Danes, that in the Coroner's statement, and indeed the interview to the PSNI, there was no reference to anyone other than Dr Montague. But in fact, the statement to the Coroner has no reference to Dr Montague. So the question which was asked suggested

to Dr Taylor that in fact he had introduced Dr Montague into his coroner's statement. So it was an answer to that question.

THE CHAIRMAN: Okay, I've got your point, thank you. I accept Mr Dunlop's point, but the point we're on is slightly different. It was only after Dr Montague provided the statement to this inquiry, saying that he had left, that you said another trainee, whose name you don't remember, replaced him, and you have said to Ms Anyadike-Danes that you don't remember that.

I have to say, doctor, you said here yesterday that you had made a number of statements which you regretted making and which you don't stand over and, in terms, you said, that some of them were outrageous.

A. Yes.

THE CHAIRMAN: Are you sure that you stand over this proposition that when Dr Montague left, something which you were unaware of, that he was replaced by anybody? Because you didn't remember Dr Montague leaving and you don't remember who replaced him, so why should I accept that he was in fact replaced by anybody?

A. I think in his statement he said he handed over to another doctor, and that's perhaps where I got that information.

MS ANYADIKE-DANES: We will look at that with Dr Montague.

I don't believe he puts it in those terms, but anyway, that's something we'll take up with Dr Montague. What I'm interested to know is that you may have got that from Dr Montague's statement, and that was the very point I was putting to you, that when you were giving your own evidence before you knew anything about Dr Montague's statement -- as I think is the case and I'm very grateful to my learned friend correcting me on that -- but I think your first reference to Dr Montague may well come in your first statement to this inquiry.

If we can pull up 008-1, page 3, and if you see at (iii):

"From about 6.30 or 6.40 I spent some time with my experienced senior registrar, Dr Terence Montague."

A. Yes.

Q. So as far as you're concerned, it's Dr Montague. And in fact if we go over to 008-1, page 4, which is where I was before, at (i):

"In a long case ..."

So that's your introduction of Dr Montague:

"... lasting over four hours it is not possible to provide patient safety with a single anaesthetist. I only agreed to provide general anaesthesia for Adam with an experienced senior registrar, Dr Montague ..."

And then if you go over, if one carries down a

little bit into that at (i):

"... therefore my actions are as a team member and a team leader for anaesthesia, Dr Montague and/or myself were present with Adam in theatre at all times."

There is no reference to anyone other than Dr Montague.

A. Yes.

Q. And the point that I was putting to you is it wasn't until Dr Montague had given his statement to the PSNI in the course of their investigations, and when he clearly states in that statement that he left, that you thereafter make a statement to the inquiry, and it is in that statement to the inquiry where you say that you had a trainee.

What I was trying to find out from you is whether you do clearly remember that there was a trainee who came in to assist you, or whether you have simply assumed that there must have been.

A. Well, I can't remember, so I assumed there was somebody. I would expect there to have been somebody to replace Dr Montague. It is not my practice to allow a trainee or to dismiss a trainee even after a night's on call until there is a suitable replacement. So it is based on that premise that a trainee who says to me "I've been on call, I want to go home", I would say, "Only when

there's a suitable replacement". So it is based on my practice; it is based on my incomplete memory that I made that statement.

Q. If there was going to be an anaesthetist other than Dr Montague, how was that going to be arranged?

A. Sorry, what do you mean?

Q. If Dr Montague is not going to stay for the duration of a four-hour operation, or whatever it was assumed it would be when you were initially speaking to him, what arrangements were made as to who would replace him?

A. Well, he would have to talk to one of the other trainees coming on and say to them, "I need to go home, Dr Taylor will let me go home if you will come and help Dr Taylor".

Q. So it's Dr Montague who'd have to make the arrangement?

A. Yes. That would be the usual practice.

Q. And when would he make that arrangement?

A. When the other trainees came on duty.

Q. So he would have to leave the operating theatre and make that arrangement and get somebody to come back in?

A. Well, maybe you've misunderstood or maybe I haven't expressed my requirement, and that is for myself or a trainee to be present in theatre. There's some times when we're both present, such as inserting the anaesthetic procedures, that there will be a requirement

for both of us there for the first hour of the surgery.

But following that, each of us would need to take comfort breaks and periods when only one anaesthetist would be in the theatre while the other anaesthetist was doing -- was being comfortable, was taking a break.

So although I wanted two anaesthetists to be present, to be available, I didn't -- it would be -- I wouldn't expect both anaesthetists to be in theatre for four hours, I would expect one or other.

Q. Yes, I appreciate that. What I'm trying to find out is the mechanism therefore that you're saying would have happened for this trainee to come in. When do the trainees come on duty?

A. I think the clock starts at 9 o'clock. Very often they will come in in advance of that. 8.30 to 9 o'clock would be the normal range.

Q. And then we are speculating because you don't remember it, but just so I understand what you think would have happened: what is it that you think would have happened at 8.30, 9 o'clock or something, Dr Montague would have gone out?

A. One or other trainees would have come in. They would usually come in to see what's happening and find whatever theatre they're attached to or find a theatre to attach to. Currently, in the last couple of years,

there is a rota made out that they go into theatre 1, theatre 2 or theatre 3, so they will know which theatre they are expected to attend and which operating list they're expected to attend. Back then, to my knowledge, there was no such plan and the trainees would direct themselves or be directed to the theatre that required them.

Q. If there weren't a trainee anaesthetist prepared to or available to step in to a transplant surgery, what happens then?

A. Well, my practice would be to keep the trainee with me, who was with me at the start; in other words, not let them go home unless they were unfit to stay after a night's on call, for instance, or unwell. They would have to stay beyond their shift.

Q. I understand. We're trying to pull up Dr Montague's statement, so we may come back to that point.

THE CHAIRMAN: Doctor, while this is being looked for, let me be blunt. Adam's death in theatre was unexpected and was a complete disaster. Right?

A. Yes.

THE CHAIRMAN: It must have left a mark on the people who were involved?

A. Yes.

THE CHAIRMAN: How then can it be that we don't know who the

people who were involved are? How do we not know if there was a third anaesthetist -- apart from you and Dr Montague, if there was a third anaesthetist, how can we possibly not know who that was or how could you possibly not know who that was?

A. I can't remember.

MR UBEROI: Sir, let me rise just to add my own observation there, which I'm sure I'll go into more in closings later at an appropriate time, but simply in response to that point, there is evidence before you of other witnesses who were involved in Adam's very tragic procedure who don't remember it.

So foreshadowing perhaps a point I will develop in closing, in my submission, it is not necessarily correct to presume that if someone was there, their memory could not fail on a procedure that, although tragic, was 17 years ago.

THE CHAIRMAN: I accept that a person who was involved might forget some of the details of their involvement, but I find it very hard to accept that they don't recall the fact that they were involved at all. That's the point I'm making to the doctor.

MR UBEROI: I do understand that, sir, but, again, not getting into perhaps a closing submission, but my recollection of, for example, Dr Brown's evidence

is that he doesn't remember, but that's for next week.

THE CHAIRMAN: Dr Brown is for next week. Thank you.

MS ANYADIKE-DANES: Can we please pull up 093-037-117. This is Dr Montague's statement for the PSNI, which he made on 30 November 2007. That was a statement that was published on the inquiry's website. You see what he says there:

"I remember the operation involving Adam Strain in November 1995. I recall that I was on call and was phoned during the night to be informed that multiple attempts to insert an IV line in Adam had failed. I consulted Dr Taylor and he advised me to advise the ward to make no further attempts. I could hear Adam crying on the phone. Dr Taylor was content that he would deal with this in the morning. I also recall Adam being very upset when he arrived at theatre, but Dr Taylor succeeded very well in calming Adam. I recall also that I was not present for the whole of the operation. It was practice that I would be on leave the day after a night on call. As Adam's operation was started early I was present at the start, but Dr Taylor sent me home. I cannot recall the time at which I left but can state that surgery had just commenced. I also recall being told the next day that Adam was going to die. My role was to assist Dr Taylor in starting the

case. I recall putting in the epidural."

So that is his recollection, that he was there really just to help you get started?

A. Yes.

Q. In that busy period, the initial period when there's all the lines to do, and there's the epidural and so on and so forth, and that he's then going home after he does that. There is absolutely no indication in that, his first statement, that he was arranging for anybody else to replace him, that somebody else was going to replace him, that he handed over. Nothing of that sort at all. It's all extremely clear. Very simple, very clear.

And in fact, it's really quite simple and very clear in your witness statements, until we get to the ones that follow this, when we have the introduction of the assistant anaesthetist.

So what I'm asking you is: is this a little bit of reflection over time and thinking, as one might, "Well, that really must have been what happened", or is it an actual recollection, "There was with me an assistant, not Mr Montague, but another assistant"? That's the point I'm putting to you.

A. Sorry, just ask me that question again.

Q. The point I'm putting to you is: is your evidence about the fact that there was another anaesthetist assistant

in the operating theatre something that you think must have happened or something that you actually remember?

A. I don't actually remember.

Q. So it is possible that there wasn't an assistant anaesthetist with you after Dr Montague left?

A. It would be unlikely --

Q. But it is possible?

A. -- but that doesn't mean it's not possible. My practice would not be to dismiss a trainee anaesthetist unless there was another anaesthetist to replace him.

Q. I understand that, Dr Taylor, but you have evidence of a number of things that would not be your practice, but nonetheless you did them, so it is possible --

MR UBEROI: I think in fairness the witness has really answered this point as far as he really can.

MS ANYADIKE-DANES: I wonder if we can move on to another point then, and that concerns -- I'm just staying with anaesthetists -- whether any other anaesthetist came into the operating theatre towards the end of the surgery when -- actually, after the surgery -- you were experiencing difficulty in waking Adam. Let me help you with that so it's not something done in abstract.

Perhaps we can pull up witness statement 181-1, page 3. This is a witness statement of Dr David Hill, who was a trainee anaesthetist. He was working in that

other operating theatre and he was assisting Dr Rosalie Campbell.

If we go to his answer to the question 4(b) -- sorry, if we take that a little bit higher, thank you -- to get all of 4 in, to put the context to you, in fairness, Dr Taylor.

So the question we had put to him is whether he was on duty as a trainee anaesthetist on 27 November 1995 and if he was, then we put two questions to him. The first was at what time he commenced and finished on that day. He said he recollected working that day and he does it by reference to events that occurred on the day, the events being those that the inquiry is now investigating, but he doesn't recollect the exact start and finish time. So that is why he remembers the day.

Then:

"Describe the duties that you undertook and where you carried them out."

And this is what he says:

"I recollect assisting a consultant anaesthetist doing a theatre list on the day in question. I understand that the medical charts for the day in question identify that consultant as being Dr Rosalie Campbell, who was a locum consultant anaesthetist. I recollect that the theatre we were working together in

was adjacent to the theatre where I now know Adam Strain was being operated on."

Can we maybe move on to page 5.

THE CHAIRMAN: Question 9?

MS ANYADIKE-DANES: Yes. So we were seeking Dr Hill's assistance in identifying this trainee anaesthetist. He says:

"I cannot recall any information about who did or did not assist Dr Robert Taylor on the day in question, other than the information that I have provided. My recollection is that at some stage during our work on the day in question, which was in an adjacent theatre, the consultant anaesthetist, who appears to have been Dr Rosalie Campbell, left to assist Dr Taylor because a patient, who I now understand to be Adam Strain, was slow to wake up. I cannot say who else was there at the time."

Now, do you have any recollection of Dr Rosalie Campbell coming into the operating theatre at any stage in Adam's procedure?

A. I can't remember.

Q. Do you have any recollection of anyone else coming in, whether it's Dr Rosalie Campbell or someone else?

A. No.

Q. Do you have any recollection at all of what Dr Hill is

talking about in this witness statement?
A. I don't know what was going on in the adjacent theatre and I don't know what --
Q. No, no, he's not talking about what was going on in the adjacent theatre, he's talking about what was going on in your theatre.
A. I don't remember anything else --
Q. You don't recognise this?
A. I don't recognise another doctor coming in to help me or who that doctor was.
Q. Sorry, I didn't hear you, Dr Taylor, I beg your pardon.
A. I don't remember Dr Campbell coming to assist me. I'm not denying she came to assist me, I'm not disputing it, but I don't remember it.
Q. Did you seek any help in waking up Adam?
A. I can't remember.
THE CHAIRMAN: Would there be anything wrong with you seeking help?
A. No, it would be my normal practice to have an assistant to ask for some help with another consultant, of course. Although it was not an acute event like a cardiac arrest, it was nothing that I needed an immediate -- sometimes when an anaesthetist asks for another consultant to come in and help him, it's usually because you're having great difficulty with an acute situation,

with a situation that is unstable with the patient. That would be the common type.

THE CHAIRMAN: Sorry, how was this not an acute situation?

A. What I meant, an unstable situation where the patient's blood pressure or heartbeat had stopped, where there was a cardiac arrest going on. That would be -- I should say a very uncommon situation in context, but to call for help would be usually because you were in a lot of trouble acutely. This is a serious situation, it's a fatal situation.

THE CHAIRMAN: But that's different?

A. It's not a situation where I would ... Sorry --

THE CHAIRMAN: I understand.

A. -- I'm digressing.

THE CHAIRMAN: I understand.

MS ANYADIKE-DANES: The anaesthetic nurse, maybe we could turn to that to complete the anaesthetic personnel issues. You had, I think, tried to help us a little bit with what an "anaesthetic nurse" means, and you said there's a difference between whether you use it as an adjective or use it as a noun. In 1995 -- I should say, I think we got the expression "anaesthetic nurse" from your witness statements -- but leaving that aside, in 1995 what did you mean when you were referring to an "anaesthetic nurse"? And so that I do not confuse the

issue, it comes from your witness statement 008-1 at page 4, when you say at 7:

"I worked closely with Dr T Montague and the anaesthetic nurse to induce anaesthesia."

That's where the expression comes from. What I'm asking you is that in 1995, what did that mean?

A. That meant a nurse to assist the anaesthetist, primarily. Her duties were for the anaesthetist. The other trained nurse would be to assist the surgeon, primarily.

Q. And that would be the scrub nurse?

A. The scrub nurse.

Q. If you had an anaesthetic nurse assisting you, as you say there, with inducing anaesthesia and so forth, did that nurse stay with you throughout the duration of the surgery or were they just there for the initial period?

A. I think that nurse changed shift halfway through the operation as well, so in other words, when the case started -- I'm not sure what you mean. There was a nurse with me to assist at the start of the anaesthetic, with induction of anaesthesia, and the nurse -- one nurse is assigned to stay with the anaesthetist, yes, but it might not have been the same nurse, if that's what you mean.

Q. Well, we've actually only been able to ascertain two

nurses throughout the procedure. One was the scrub nurse -- or is the scrub nurse -- and the other, the runner. What I'm trying to find out is where's the third. You're positing that there was a third one. So the surgeon would have had the scrub nurse; you would have had the anaesthetic nurse and then there was the runner doing the things that a runner does, but they're not sterile anyway. Is that what you're saying?

A. No. Sorry, I don't think so. At the time in 1995, my recollection is there were two trained nurses -- in other words, two children's trained, fully qualified nurses, if you like -- and a nursing auxiliary. That would be the theatre complement for running out of hours emergency cases.

Q. What did those three nurses do?

A. The usual practice is for one nurse to be the scrub nurse, the surgical nurse, if you like; one nurse to be the anaesthetic nurse; and the auxiliary nurse to be the runner, is my understanding.

Q. Well, is it possible that the person who assisted you with the anaesthesia, who you have referred to as the "anaesthetic nurse", once that initial period was finished, all the lines were in and so forth and he was anaesthetised, is it possible that that nurse then became the runner?

A. Well, I think what is possible is that for a four-hour case those staff would have to have comfort breaks, so there would be a flexible period when the nursing auxiliary would leave the theatre, and my anaesthetic nurse would do her duty as well during a case when there were less anaesthetic requirements for that nurse to do. But that nurse, although she was nominated as the anaesthetic nurse, her primary duties would be at the start of the case, as you indicate. As a case progresses, her duties become less.

Q. As she becomes a runner, she can't then come up and help you because she's not sterile; isn't that right?

A. The runner is not sterile.

Q. That's the point that I'm making. So once she's -- is your anaesthetic nurse not sterile?

A. No, we're not sterile. I'm not sterile. Montague's not sterile. The only sterile people are the surgeons.

Q. I see. So what you're saying is that you could have had -- I'm just --

A. We wash our hands. We're not dirty, but we are not wearing sterile gowns and gloves for the whole length of the operation. We put on gowns and gloves -- I might have confused you here. When Dr Montague did his epidural, he put on gowns, and gloves and a hat. We wear hats. Everybody in theatre wears a top, a tunic,

cotton trousers, blues, and a hat.

The scrub team, the surgeons and the surgical nursing wear, occasionally, a mask -- the practice in most theatres is not to wear a mask, in fact -- and gloves and a gown. Only when a sterile procedure is being done would any other member of staff gown up and wear a surgical sterile suit. I hope I've clarified that.

Q. You have, that's very helpful. I just want to make sure that we've now got it, a possibility correct, which is the possibility is this, that there were actually only two nurses, but they may have played different roles. So you could have had a nurse who was assisting you and then after she had assisted you with your anaesthetic duties at the beginning, subsequently she took on the role of a runner?

A. I don't think -- you'll have to speak to nursing about this -- I don't think they would start without three physical human beings. Two would be trained, frequently, and one would be an auxiliary nurse, not a fully qualified nurse. Sometimes, if they can't get a nursing auxiliary, there would be actually three trained nurses. But the minimum requirements, as I understand, to provide out of hours surgery is for two trained nurses and an auxiliary, so there would be three

personnel, but only two might have been qualified.
Q. No, sorry, that wasn't --
A. You suggested there were only two nurses --
Q. I may have confused you. At the moment we have only been able to identify, physically, two actual nurses during that procedure. We know that there was a handover early in the piece, but, basically, throughout the procedure we have only been able to identify the scrub nurse, staff nurse Popplestone, and the runner, staff nurse Mathewson.

What I'm trying to ascertain from you is when you refer to an "anaesthetic nurse", whether that means that actually there was a third nurse in that operating theatre throughout the procedure.
A. No, it would be infrequently that there would be three qualified nurses, but there would have been three personnel. One would usually be an auxiliary.
Q. Sorry, it's probably using the word "nurse" instead of "auxiliary". Three persons.
A. Okay.
Q. Are you saying there were three nursing persons throughout the procedure -- whether they're called qualified staff nurses and auxiliary or whatever combination -- are you saying there were three of them throughout the procedure?

A. Certainly at the start of the procedure, that would be the requirements.
Q. At the start?
A. Yes.
Q. And throughout the procedure?
A. Well, I presume more staff were available after 8 am when the day staff came on.
Q. They may have changed backwards and forwards, in other words some people may have gone off duty and been replaced, but actually physically present in the operating theatre; after you have had your three at the start, do you then go down to two? Irrespective of whether they change shifts, are there actually two physical nursing persons?
A. My understanding is there would be three.
Q. Throughout?
A. Throughout, although someone might have left for a short break in between.
Q. But, basically, three?
A. Three would stay throughout.
Q. What you're saying is that there is a nursing person, of whatever qualification, that we have not yet identified that was in that operating theatre?
A. Apparently.
THE CHAIRMAN: In fact, from what you say, after 8 am it's

easier to get a third nurse --

A. Yes.

THE CHAIRMAN: -- because you've got more people coming on duty on a Monday morning.

A. Yes, this is a skeleton crew. This is out of hours. This is the minimum requirements to run a theatre.

THE CHAIRMAN: So there'd be no reason why there would not be a third nurse from 8 o'clock onwards? You think there should always have been a third nurse --

A. Sorry --

THE CHAIRMAN: But if there was any hiccup before 8 am then from 8 am onwards it would have been easy to get a third person?

A. I would expect so, yes.

MS ANYADIKE-DANES: What about the medical technical officer; what's he doing? Is he assisting with anaesthesia?

A. Yes, the technical aspects of anaesthesia.

Q. Which means?

A. Anaesthesia's quite a technical speciality. For a case like Adam, the monitoring included his saturation, his blood pressure. His blood pressure was invasive. In other words, I put a drip into his artery, and that is measured through a transducer, which is a column of saline connected to an electrical component. So that

has to be set up and zeroed, and we've already talked before about zeroing the CVP. The CVP needs to be drawn up and zeroed and the various other elements of gases and vapours required and laryngoscopes(?) -- things that we use to visualise the upper airway, that would all be assembled by and maintained by the medical technical officer.

Q. When you talked about the way in which you would find the zero -- I wonder if this might help, it may not. Can we look at the reference 300-034-052. Is that part of the process of establishing --

A. Yes.

Q. Is that part of what he's doing, he's helping you with that?

A. Yes.

Q. And checking the equipment?

A. He would ensure that the transducer that records the level of central venous pressure is at the same level as what we call the mid-auxiliary line, which is the proximate outside point where the heart would be.

Q. And that's what that's trying to identify there?

A. Yes.

Q. So he's working on that. And then you have also assisting you at this period of time Dr Montague, who we know is assisting you with various things and going to

go on to put in the epidural, and we have the anaesthetic nurse who's also assisting you with various things; is that right?

A. That's right.

Q. Apart from the anaesthetic nurse, did you have any independent recollection of any of the other nurses? Did you have a recollection of who the scrub nurse was, for example?

A. No.

Q. No independent recollection that it was Staff Nurse Popplestone?

A. No.

Q. Or any independent recollection of Staff Nurse Mathewson?

A. No.

Q. Or Conway?

A. No.

Q. So you have no idea who this anaesthetic nurse might be? Because you don't remember any of the nurses.

A. No, I don't remember.

Q. Okay. Then I wonder if we might move on to the very thing that we just started to talk about, which is the CVP. You were helping us with the anaesthetic personnel and what they all did and, to the extent you could, who they were. Then the CVP. These are all these

procedures that you're doing before the surgeon gets to start his work, if I can put it that way, his work in terms of the actual surgery?

A. Yes.

Q. Can I ask you why it was you said in your deposition to the Coroner -- let's pull it up: 011-014-096 -- that a central venous catheter was placed without undue difficulty?

A. Yes.

Q. If you see there, it's about two-thirds of the way down:

"IV access, arterial access and central venous catheter were all placed without undue difficulty."

Why did you say the central venous catheter was placed without undue difficulty?

A. I can't remember.

Q. But it wasn't placed without undue difficulty?

A. No, it wasn't.

Q. In fact, you could have put him to one side and then you had to try another side.

A. Although in a child like Adam, I perhaps expected it to be difficult and the fact that I got it on the third attempt perhaps meant that it wasn't undue difficulty.

Q. Ah.

A. In the context of a child like Adam, who had had multiple central lines in his past, I might have been

putting in the term(?), which looks unusual now from this distance, but in the context of Adam perhaps I was expecting greater difficulty.

Q. Why were you expecting greater difficulty?

A. Because of his history of having central lines before.

Q. When you looked at his history of central lines, did you notice anything about ligation?

A. Well, there's two types of central line, if I can help.

Q. Yes.

A. The surgical line known as a Broviac line very often is a surgically placed central line and it requires the surgeon to do a cut down, in other words to open the skin with a scalpel and use stitches, and it's a one-hour procedure, commonly. And they identify a certain vein, usually in the neck, and they insert their catheter, their central line, through that vein and they have to put a suture or ligate the vein, usually above and below where they've made the incision into the vein. Because when you cut open a vein with a scalpel, you have left a hole in it.

So once they do that -- and perhaps a surgeon could explain this better than I have, I'm merely outlining the procedure. So that is -- that vessel is then often lost to future patency, it loses its patency, it's blocked off. Occasionally it can recannulate. The

human body has miraculous powers sometimes to find another way through an obstruction. But by and large, I would say that a Broviac line, when it's placed, causes the vessel to be lost to future use at that point.

An anaesthetic line, or the line that I would put in, is a percutaneous line, so I use a needle, put it through the skin, puncture the vessel and then I can put through a guide wire over that and slide a central line, in this case with three lumens, so there's three direct -- different entries, into that vein.

Now, although that vein has been punctured and that will cause a clot eventually to form around that puncture site, it is not always lost to future use. So in other words, it can be used again. What I mean to point out is if a patient has a scar on their neck and they've had a history of a Broviac line there with a scar, I would assume that, at that point, that vessel has been ligated, tied off, and, really, it's unlikely that that vessel can be used again.

Q. Did you identify any of that in your examination of Adam before you started?

A. Yes.

Q. So you believed that there were ligated veins?

A. That's right, at certain points in his neck.

Q. Thank you. Did you see that also from his medical notes and records?
A. Yes, where they were available to me.
Q. Sorry?
A. Where they would have been available to me, I would have seen that in the records. I could have checked that.
Q. Well, I appreciate that. That's slightly different. Sorry, that was my fault, I didn't put the question the right way. Did you see that in his medical notes and records when you looked at his medical notes and records in 1995 before you anaesthetised him?
A. I can't remember.
THE CHAIRMAN: Are you saying you do remember seeing ligated veins in his neck when you did see Adam at the start of your anaesthetic procedure?
A. Yes, the scars were visible.
MS ANYADIKE-DANES: I wonder if I can ask you something about the CVP catheter itself. You formed the view that the CVP catheter had gone in the wrong direction -- if I can use layman's terms -- and were able to feel that and felt that that was subsequently confirmed in the X-ray.
A. Yes.
Q. You did, however, also say that there were both cardiac and respiratory patterns to the waveform.

A. Yes.
Q. I wonder if we could pull up 300-035-053. Is that a waveform?
A. Yes.
Q. Is that what you meant?
A. Probably not identical, but similar.
Q. Let's look at something else that might help you. 300-036-054. That's a monitor. I immediately say that that's not intended to be the monitor that you would have been looking at in Adam's theatre. But is that a similar sort of thing that you had been looking at with those sorts of waveforms?
A. Similar, yes.
Q. If you see a waveform, what does that mean, so far as you're concerned, about the functioning of the equipment?
A. It means the equipment is connected through a column of saline to the patient's vessel.
Q. And if you see the waveform, what is it recording? You refer to a waveform of both cardiac and respiratory patterns, so what are we seeing -- or what were you seeing, more to the point, when you said that could be seen?
A. What I'm saying is that the tip of the catheter, which is where I'm monitoring it from, is inside a vessel.

Q. Right.
A. And it's not inside an artery, it's inside a vein, and that's a very confirmatory sign that I haven't -- remember when I'm doing my puncture through the skin, the tip of the needle could go technically anywhere. It could go into an artery; it could go into the lung; it could go into any number of different structures around that area.

So the first thing I, or any doctor, would do when they put a catheter into that, presumably lumen or vessel, is that they have to confirm that it's inside the vessel and not sitting loose in some other structure. So that was a confirmatory sign.

This waveform does not show any respiratory pattern, but if a patient's being ventilated -- I think this is a simulation rather than a true patient -- but when the patient is being ventilated, air is being pumped in and out of their lungs, so there will be a slower, gentler waveform. So that's what I meant by "respiratory". These would be the cardiac waveforms. There would also be often a respiratory waveform on top of that or alongside that.

Q. So this was measuring the cardiac function and the respiratory function?
A. No, it doesn't measure the respiratory function, that's

an artefact. It shows me that it's a vessel that's being impacted on by pressures from elsewhere, but we wouldn't record the respiratory pressure by using a central line.

Q. I understand that. So then the next issue, of course, will be how accurate those values are that you're seeing.

A. Yes.

Q. But so far as you're concerned, you are getting measurements, so that's not your problem. It's not your problem that you haven't got it into a vessel that's generating measurements for you. Your problem is: have you got it in such a place in that vessel, whereby it's giving you accurate measurements?

A. That's correct.

Q. Thank you.

A. I think that's correct.

Q. I wonder if we could have a look --

MR UBEROI: When my learned friend reaches a convenient moment, I simply note the time.

MS ANYADIKE-DANES: That probably would be it.

THE CHAIRMAN: 2 o'clock, doctor. Thank you.

(1.00 pm)

(The Short Adjournment)

(2.00 pm)

MR UBEROI: Sir, may I very briefly raise a flag of housekeeping? I have kept in regular contact with my learned friend and I'm very grateful for her indications that, as far as she's always been concerned and remains concerned, we'll certainly finish this witness today. I believe that's the view of everyone in the room and I was grateful for your indication this morning, but I simply wanted to raise it because it is certainly something I rely upon, in fairness to Dr Taylor. I simply wanted to put that marker down.

THE CHAIRMAN: I understand. Thank you.

MS ANYADIKE-DANES: Dr Taylor, this is the printout from the trace in theatre, showing the CVP, and we had looked at a monitor that wasn't the one that was used in Adam's case. This is the trace from the one that was. Do you recognise this?

A. Yes.

Q. And the CVP measurement, that's the thing down at the bottom; is that right?

A. Yes.

Q. Firstly, what is this recording? This is not real time, is it?

A. Well ...

Q. Sorry --

A. It is a recording of real time.

Q. Is it compressed?
A. Yes.
Q. Thank you. You see those --
A. It's a theatre record.
Q. Along the bottom is the time --
A. Yes.
Q. -- and there seems to be something just a bit before the indication showing 7.30, and then it seems to go up and 8 o'clock and there are a number of times when it seems to come back down to zero.
A. Yes.
Q. So just before 8 is one, round about 9 o'clock. It looks like 9.15, what looks like 10 o'clock. And are those occasions when you -- I think we have heard the expression -- zeroing the machine?
A. Yes, that would correlate with zeroing.
Q. There are two measurements along the other axis, there's 60 and 40. Is the 40 the measurement that is relevant for the CVP? Do you see that at the top there?
A. Right.
Q. Is the 40 the measurement for the CVP?
A. Yes, I think so, yes.
Q. So when we see these figures, what we are seeing is figures that are -- leaving aside the zeroing -- bubbling around 20, slightly higher, and going as high

almost, it would appear, to 30 at round about 10 o'clock?

A. Yes.

Q. And are those the readings that you were receiving in the operating theatre in relation to Adam's CVP?

A. Yes.

Q. And those are the readings that you decided that you couldn't rely on, but could only use as a relative marker position?

A. That was my original -- [OVERSPEAKING]. I felt that I couldn't have relied on them at all.

Q. I understand. But at the time -- I'm still in 1995 -- they were the readings that you decided that you couldn't rely on for absolute figures, but you could rely on as relative, so the relative change was something that you could rely on; is that correct?

A. Well, I thought I could, yes.

Q. I know you thought you could. So does that mean then, when one looks at the change from 9.30 when it's just slightly below 20 to 10 o'clock when it's roughly at 30, that you felt you could rely on that relative change of somewhere in excess of about 10 millimoles?

A. Yes.

Q. And did that concern you at the time, that there had been an increase like that over a period of half

an hour?

A. Yes. And that is why I re-zeroed it.

Q. When you re-zeroed it, it's still above 20?

A. Yes.

Q. In fact, one way or another, with very few exceptions, it's always above 20.

A. It would appear so, yes.

Q. Can we please pull up 058-008-022. Well, the CVP measurement I wanted to look at is, of course, the thing that's at the bottom. It's not a very good picture of it, but I think you can see that, by and large -- I think we have looked at the original of this somewhere. I will try and find it, so it's not fair to put it to just like that.

If you can see 1,300, 1,400, 1,500, 1,600, you can see, with the exception of some period of time at round about 1.30 to 3 o'clock, where you can't see anything, other than that the marking seems to indicate that that CVP was holding at about 10; is that right?

A. Yes.

Q. You have to look quite carefully, I appreciate that. So that's a completely different order of magnitude for what was happening in the operating theatre; is that right?

A. Yes.

Q. Thank you.

Yesterday, when I had asked you about the placement of the CVP line, we all know that your view was it was in the wrong place and that was part of the source of the problem. And I had put to you the suggestion that you could have inserted -- in fact, you ought, according to Dr Haynes, have inserted it into the femoral vein on the opposite side to where the transplanted kidney was being anastomosed or to have considered a surgical cut down.

If I just pull up that, 204-013-395. If you look at the penultimate paragraph:

"It is my opinion that it might have been prudent, once the difficulty was identified with placement, to have inserted the line into a femoral vein on the opposite side to where the transplanted kidney was to be anastomosed or to have considered a surgical cut down procedure to cannulate a central vein in the neck."

I think, in relation to the suggestion of the femoral vein, you had some medical reason why you did not think that would be entirely satisfactory?

A. Yes.

Q. Why is that?

A. Well, it's a thing I would have discussed with the surgeon performing the procedure, but I would have been

concerned and would still be concerned about a central line placed at the lower end of the abdomen, not far from the surgical field and where the tip of the line would lie in proximity to a transplanted -- in Adam's case -- adult organ. And therefore, the pressure on that blood vessel, the inferior vena cava, would potentially have caused yet another potential artefact and led to unreliability of the central line pressure.

Q. Is that something that you think Dr Haynes hasn't sufficiently considered, that possibility?

A. I would like to know his views on it.

Q. Thank you very much. Now, I understand if we can move on to another issue, which is the visibility of Adam during the surgical procedure. You have said that, at the end of it, when you took away the drapes, you realised how bloated he was?

A. Yes.

Q. The question I put to you is: could and should you have kept his head visible during the procedure?

A. I'm trying to remember if his head was visible.

It would be my usual practice to keep the head visible at the head of the table, with the surgical drapes held up between his head and a screen.

Q. Yes. I wondered that. In fact, one of the pictures that we had seen of the early part of this, of just how

the people are arranged, if I can put it that way, in an operating theatre shows precisely that, an operation like that with the screen up.

A. Yes.

Q. So you're at the end, the other side of the screen, where you can see the head --

A. Yes.

Q. -- along with the equipment. If you had done that and during the time when you were given your interview to the police, you said the viewing of the surgical field and so forth is very, very important -- I won't take you through all the references because I see you're nodding -- how important all that was, and so the question I'm putting to you is: how was it that you didn't notice that Adam's face was getting puffy and bloated?

A. I hadn't thought of that, but it would have been visible. I don't know why I hadn't noticed it, hadn't considered that before.

Q. Well, in fairness to you, I think in your witness statement, 008-2, page 45, you said, if you look at the answer to 122(a):

"Face, hands and feet were swollen. I first noticed this when the sterile towels were removed at the end of the operation."

That is actually why I asked you why you didn't keep the face visible. Then you said:

"Well, it was actually my normal practice to keep it visible."

So that led me to ask you that if it was your normal practice, how didn't you notice it? But if in fact your evidence is:

"Contrary to my normal practice, or notwithstanding it, I actually had his face covered with sterile towels ..."

Then can I go back to my first question: why did you do that; why didn't you expose his face so you could see what was happening?

A. I don't know.

Q. Would there be any good reason for covering his face with sterile towels?

A. Um ... I can't imagine.

Q. Perhaps we can look at 204-004-170. This is the report of Dr Haynes. If you look at his position on it, at 1:

"Alerting features would include (a) oedema of the soft tissues of the head and neck, indicating either a raised hydrostatic pressure, forcing fluid from the circulation into the interstative space, or decreased osmotic pressure, causing fluid to move from the circulation, most noticeably in the eyelids."

And so on. If we move on down, without reading it all out, to the penultimate sentence in that paragraph:

"It is customary to keep the head visible during an anaesthetic whenever possible and to examine it, including at the pupils at intervals during a long operation, and no note is usually made of the findings unless a problem is identified."

But you, it would appear from your witness statement, didn't keep his face visible.

A. I can't account for that.

Q. I wonder if we can move to the issue of the blood gas analyser. You did use a blood gas analyser round about 9.30 during the operation, and I think you said because you were a little bit concerned about not anything to do with his serum sodium levels, but actually about his blood. There had been a fall in his haemoglobin levels, so you wanted to test his blood, isn't that right?

A. Yes.

Q. So you used the blood gas analyser. It's not in the operating theatre, but it's proximate to it, and I think we saw the photograph of where it used to be --

A. Yes.

Q. -- although it's not organised like that now. And you did get the result back and you got, quite apart from the haemoglobin, a result back from the serum sodium and

the result you got showed it was 123 millimoles; is that correct?

A. Yes.

Q. And you decided that you couldn't rely on that and so you didn't rely on it. Now, you have since, in your most recent witness statement, said that was an error, and you should have paid attention to that and you've gone on to say how else you should have treated the measurement of his serum sodium levels.

But that's not the thing I want to ask you a question about. What I want to ask you a question about is: you provided quite a bit of evidence to justify the fact that the blood gas analyser recording for sodium would be inaccurate, and not only that, but that you were told -- you and other anaesthetists -- were specifically told not to rely on it and pay any attention to it. That's what I want to ask you about.

Is it your continued view that the readings from a blood gas analyser are so inaccurate that you shouldn't rely on them?

A. I think my concern about it was that we used a drop of heparin or a volume of heparin in with the blood sample to prevent clotting inside the machine, and dilution and the fact that it was whole blood we were analysing instead of serum sodium, and the quality control of that

blood gas analyser was a concern to me and to the department. And following Adam's death, that was replaced, and since Adam's death, or certainly since the new analyser was purchased following Adam's death, we no longer used wet heparin, we no longer added heparin to a syringe before we took a sample.

We have continued to use what is called "dry heparin crystals" in our samples. That was a lesson that the department learned from Adam's death. And up until this day, we use an analyser that has regular quality control checks in all the blood samples that we analyse in it, and we also -- invariably use a dry heparin syringe.

Q. I understand that. Firstly, who is it that was telling the anaesthetists that they should not -- or you as well -- should not be relying on the serum sodium levels produced by a blood gas analyser?

A. I can't remember a conversation or the individuals who told me, but my memory was that it was commonly known. I was knowing about it, the technicians knew about it.

Q. Was it recorded anywhere? That's quite an important thing. You've got a piece of equipment that produces a value, which actually you can't use. One of the values it produces, according to you, you can't use; is that recorded anywhere?

A. I have not been able to find any document where that's

recorded.

Q. Well, I wonder if I can take you to the witness statement 180-1, page 3. This is the third page of the witness statement from David Wheeler. He works for Instrumentation Laboratories, who are the manufacturers of the blood gas analyser used in Adam's case. He says, if you look at the answer to (ii) right at the top:

"When blood gas analysis is combined with electrolyte analysis syringes should provide a final heparin concentration of no more than approximately 20 of blood ..."

And then he goes on to say, this is the manufacturer:

"Does not recommend the use of sodium heparin as an anti-coagulant because doing so will increase sodium levels measured by 1 to 3 millimoles even in the presence of the correct proportion of heparin and blood."

So what he was saying is the effect of the heparin that you were concerned about that made the result inaccurate, so far as you're concerned, the effect of the heparin, if at all, would actually increase the serum sodium level. So in other words, if you were getting a reading of 123, Adam's actual serum sodium level could have been lower than that at that time?

A. Yes. I read this statement and it is at variance with what I understood at the time, and I can't account for the variance between his statement and the other information that I was given at the time.

However, I have recognised that the sodium should not have been relied upon -- sorry, I should have taken a notice of the sodium of 123 at that time and did what the other recommendation is on the machine, which was to send a confirmatory sample to the lab. I did not do that and I regret that I did not do that.

Q. I understand that, Dr Taylor. What I'm going to ask you is: why didn't you? You had a result and, in your view, you can't rely on that. But it's a low result anyway. So if it were anywhere near there, I might be worried about that because it certainly would have shown a fall from where I would have assumed he started at the beginning of the procedure. So why didn't you just send a sample to the laboratory?

A. I cannot give an explanation for that. It was an error and I have accepted that error on reflection. That will not recur because we now have a system, since Adam's death, that that same possibility will not recur.

Q. You mean in the sense that you've changed the blood gas analyser?

A. And the use of heparin. We no longer add heparin to the

syringe, so there should be no artefact either too low or too high.

Q. I understand that, but the issues are slightly broader than that. It's a matter of judgment. If something like that seems out of kilter or concerning, then the judgment is: let me see if I can confirm it in some way. So it's not a matter of whether you have a new machine or you do different things about heparin, it's the exercise of judgment during a procedure like that?

A. I recognise that.

Q. If I might go to blood loss. Blood loss, I think, was something where, roughly, we may have started some time yesterday, about how you calculated blood loss. I must say, I think it would still be helpful if you could assist us with blood loss.

The reason I ask that is because you and, for that matter, others have a different view from Mr Keane as to the extent of the blood loss that Adam sustained during his operation.

Are you aware of the fact that you and Mr Keane have different views on that?

A. I am indeed.

Q. And have you read his views?

A. Yes.

Q. Mr Keane, if I can summarise this way quickly, if one

looks at 006-2, page 14, I think you can see that he says there was no major bleeding in Adam's case. So he has previously said that there was very little blood lost. He said that in his police statement, that is Mr Keane said that.

Then he goes on to explain that there was no major bleeding in Adam's case, and part of the explanation for that, or the justification for it, is, he says, the haemoglobin was 10 at the start, and 10 at the end and he received between 250 and 350cc of blood. That is part of his justification for how he can be sure about his statement that there wasn't any major bleeding. Then he goes on to say that you didn't communicate any concerns about blood loss to him.

Then if we go to 006-2, page 10, he's explaining what is the component of what's been suggested was a blood loss of 12cc. There you are. It's the answer to 12(a). He says that it's not really 1,200cc, that's the wrong way of looking at it:

"Approximately 600cc was made up of urine, peritoneal dialysis fluid, slushed ice used to cool the kidney until the vascular anastomoses are complete."

I wonder if I can ask you, on what basis do you differ from Mr Keane about the blood loss?

A. My observation of the blood loss was based on the swabs

which I asked the nurse to -- which we talked about yesterday. The nurse was weighing the swabs whenever they became available to her out of the sterile field. And the suction and the towels, which was a subjective measure rather than these objective measures of actual loss.

Q. Yes.

A. I did not account for urine and peritoneal dialysis fluid or slushed ice in my calculations, and that is possible that that was an error on my measurement and otherwise of the blood loss.

Q. What about his analysis that, in any event, the haemoglobin starts at 10, ends at 10, and only, I think he says, 250 to 300cc of blood is infused; what is your comment on that?

A. Is it possible to call up my theatre record?

MR UBEROI: 058-003-005. I suppose the other document of potential relevance is the blood loss form by the nurses, but, for the moment, perhaps the anaesthetic record will suffice.

A. Could I draw -- is it okay for me to speak?

MS ANYADIKE-DANES: Of course, please do, yes.

A. The line of packed cells, if you read across from packed cells, and we've lost the time now, but you can see 250 -- at the time 0930 is 250, the first 250.

Q. Yes.
A. That's in millilitres volume. I didn't write millilitres, but that is millilitres. That is given just on the 9.30 mark, I think coincides with my blood gas analysis that showed the low haematocrit. So that triggered me to give red blood cells because I was concerned that the blood count had dropped at that stage.
Q. Can I just pause you there before you go on to deal with the second 250. The drop in the haematocrit and your concern about it, is there anything else that causes you to be concerned about blood loss at that time, or is it that simple recording?
A. It might be connected with the cumulative total on the swab count.
Q. Yes, because is that not what caused you to measure the blood in the first place?
A. I would imagine that was --
Q. A concern?
A. Yes. I can't remember, but it would be my practice to check the haemoglobin if there was a significant swab count or I was concerned that the haemo --
Q. We'll go to the swab count in a minute. In fact, I think you have said it in your other witness statements, and if anybody's concerned, I will try and

find it, but I think what prompted you was the concern about blood loss, which would be something you were observing.

A. Yes.

Q. You then have the blood measured through the blood gas analyser; you get the result that you do, and what does that result actually mean? There was a fall to --

A. From 10 to 6.51 [OVERSPEAKING]. You're not going to like this, but that is another estimate. I actually think it says in the blood gas form "estimated haemoglobin". It's not an accurate haemoglobin, and that is something I would always check with the laboratory if I was concerned about a spurious reading. [OVERSPEAKING]. That is an estimate of haemoglobin. It's not done correctly as it would be done in a haematology lab. It is to do with the machine.

MR UBEROI: In case it assists the witness, 058-003-003, please.

MS ANYADIKE-DANES: Thank you. There we are, there it is.

A. Yes. It says "HCT, haematocrit (conductivity)". I don't know enough about laboratory technology, but I don't believe that it is the most accurate way of measuring blood gas, but I'm prepared to be enlightened on that by an expert.

Q. No, what I'm trying to ascertain from you is when you

saw a fall, albeit an estimated figure, it's a fall from where he started off; what does that mean to you, as the anaesthetist?

A. It means that I should be alert to the change in the blood volume, the blood count, the anemia; the patient is anaemic.

Q. So is that confirming your concern -- the concern that you had that led you to measure it in the first place, does this result confirm it, as far as you are concerned?

A. Simple answer, yes.

Q. So you administer the 250. Can we go back to where we were. Page 5. So that's your first 250. What happens to Adam that you can tell once you've administered that 250?

A. Well, there's a change in his heart rate around about that time, which seems to coincide with his blood volume.

Q. Okay.

A. Although the blood pressure hasn't changed dramatically, but there seems to be another measure that the circulation has been expanded, is the heart rate can settle down a little bit. Not dramatically, just slightly lower.

Q. And then you were going to tell us about the second 250.

A. I would have calculated that for his haemoglobin to drop from 10 to 6, that he would require two units of blood. I don't do that calculation now, but there is a way to measure a patient's blood volume -- and the haemoglobin drop. I would need to check that with my theatre. There's a way to do that.
Q. Okay.
A. And I would have administered two units of blood to correct his haemoglobin. That's my skill, that's my learning.
Q. Okay.
A. So I administered two units of blood. Now, I haven't put a line, unlike the other fluids, I've given about how long that was -- took to deliver, so presumably the first 250 took an hour to run in. My point is I don't want you to get the impression that was given as a sudden ...
Q. I understand. You are administering blood because you have a concern about blood loss.
A. Yes.
Q. Did you mention that to the surgeon -- Mr Keane, sorry?
A. I can't remember.
Q. You've previously helped us with what -- what's your practice? If that is happening, you have done your tests; you feel your tests are confirming your concerns;

you administer blood. It's not a very huge space that you're operating in; is that discussed or raised at all?

A. It often is. Should happen, sometimes doesn't happen if myself or the surgeon are particularly focused, concentrating on a particular area. It may not be a convenient time to disturb someone if someone is being very intensely -- many surgeons I work with get absorbed in their work and become irritated if you tell them about every event that's going on.

THE CHAIRMAN: How often had you worked with Mr Keane before?

A. I can't remember.

THE CHAIRMAN: Did you know him reasonably well or was he a stranger to you?

A. No, I knew him from before.

THE CHAIRMAN: Okay, thank you.

MS ANYADIKE-DANES: Does the surgeon need to know if you're infusing blood; is that a relevant piece of information for the surgeon?

A. Yes.

Q. Should you therefore tell him you are doing it, even if you don't tell him literally at the instant you're doing it?

A. Yes. At least it would be a matter of courtesy.

Q. Should you also tell the surgeon about any low serum

sodium levels?
A. Possibly, yes.
Q. Can you recall whether you told Mr Keane that you were administering blood to Adam because you thought it was necessary as a result of his blood loss?
A. As I said, I can't remember.
Q. Can you recall if you told him about the result that you got from the blood gas analyser in relation to his serum sodium level?
A. Well, I think because I didn't rely on the sodium, I wouldn't have taken it myself as an important measure, so I wouldn't have passed it on.
Q. Did you ever tell him about the CVP readings throughout the surgery?
A. I can't remember.
Q. But is not the CVP reading something that Mr Keane has said is one of the most important values that a surgeon needs to know, and Professor Savage has said that's a very important value to know?
A. Yes.
Q. And you had CVP readings that were very high, even if you didn't necessarily think they were accurate as very high, but they were very high?
A. Yes.
Q. Why wouldn't you tell him?

A. I can't remember if I told him.
Q. You had a discussion with Dr O'Connor when she came into the operating theatre about CVP values because you explained to her that it started at 17, and you didn't think they were reliable, and so on and so forth, and why you didn't.
MR UBEROI: I don't know if, in fairness, the witness should be asked to comment on Dr O'Connor's recollection first before the question is then taken on from there, as to his recollection of that event.
MS ANYADIKE-DANES: I accept that.
Did you have a discussion with Dr O'Connor about CVP readings?
A. I can't remember 17 years ago.
Q. She says you did. Are you in a position to say that she's inaccurate?
A. I can't dispute what she says, but I can't remember.
Q. So is there any reason why you wouldn't have told Mr Keane that you had very high CVP readings, even if you thought, as absolute figures, they weren't entirely trustworthy?
A. I can't think of any reason.
Q. Can I ask you about the look of the kidney, the donor kidney, if I can call it that. You said in your deposition to the Coroner at 011-014-101 -- it's where

you say that it wasn't looking good.

You talked about the two boluses of dopamine that you infused, and you said that the rationale of that was to increase the perfusion pressure without fluid challenge. So not to affect that, but you wanted to increase perfusion pressure to the donor kidney, which, at that stage, was not looking good and not producing urine.

And you have that at about 10 am. Can we just get to the full page and see that in its context. Perhaps put the box around it.

There you are. What I want to ask you about is: what does "not looking good" mean?

A. I put that in inverted commas.

Q. Yes.

A. Because it is an observation and I can't really apply an objective feature to it, except to say it was an impression that I gained.

Q. What was its appearance to you?

A. If I were to verbalise what "not looking good" was, as I think I've done in later statements, it would be to say it was dusky and hadn't looked pink. That would be my observation. Sorry, that would be my -- or not pink.

Q. Can we look at 300-050-068. That's a kidney about to go in. Then if we look at 300-053-071. That's one

anastomosed and pinking up. Can you help us with the description of the kidney when you say it wasn't looking good?

A. Well, presumably I observed that it wasn't looking like that. It wasn't pinking up.

Q. Is that how it should have been looking, in your experience?

A. From my observation point, yes.

Q. You had put that as round about 10 am.

A. Can I go back to that?

Q. Yes, we can.

A. I think I did, yes.

Q. 011-014-101. There you see at around:

"Two small increases in the systolic BP at around 10 am corresponding to two small boluses of dopamine. The rationale for this was to increase the profusion pressure to the donor kidney, which, at that time, was not looking good and not producing urine."

So that sounds like "at that time" being about 10 am?

A. Well, it says "at that stage".

Q. Sorry, I beg your pardon. You're quite right, "at that stage". Then can you help with what "at that stage" means?

A. I think if I had said "at that time", I would have meant

"at that time", so --
Q. I apologise. What does "at that stage" mean?
A. The stage would have been anywhere from around 10 am; the stage of re-implantation; the stage of waiting for the organ to accept the blood supply, so that could have been --
THE CHAIRMAN: Is that 10 am onwards?
A. I've said at around. I'm not being obstructive to you, sir --
THE CHAIRMAN: You're not tying it down to 10.01 or 10.02, but from around 10 o'clock onwards?
A. It could have been before 10. It's the stage of the operation. When I refer to "the stage", it's the stage of the surgery releasing the clamps. That often isn't a single moment. It can take a while for the clamps to be released, reapplied, released, reapplied, depending on whether there's an anastomotic leak, if the blood vessels haven't been -- I'm getting into surgical territory. What I'm trying to say is it's not a single moment in time, it's a stage.
MS ANYADIKE-DANES: I understand. Presumably, after anastomoses.
A. Around that time. It's not a single event, in my experience.
Q. I understand. But in any event, whenever the time was,

or the times, it wasn't looking good, so far as you could see, and it wasn't producing urine?

A. That's what I've stated.

Q. Thank you. Then if we can come towards the end of surgery, when do you remember Mr Keane leaving the operating theatre -- sorry, I beg your pardon. Do you remember Mr Keane leaving the operating theatre?

A. I would need to check my statements to see if I've recorded that, because my memory is that I don't remember him leaving the operating theatre and I'm not sure if I recorded that.

Q. I understand. I shouldn't have asked you in quite that way, I'm sorry. It was presumptuous. When you said you don't remember him leaving, could he have been there for the duration of the operation, right to the end?

A. Anything's entirely possible because, if I may put it in context, towards the end of the operation is when I was concentrating on trying to diagnose Adam's difficulties with his pupils and with the fact that he wasn't starting to wake up. So I feel that I was in the context of my work --

Q. Who was there at that stage when you were trying to do that?

A. I can't remember all the personnel who were in theatre at that stage. I was quite active in my various

attempts to --

Q. I appreciate that. Can I take you to a little bit before that, before you actually get to the stage where you're trying to reverse the anaesthesia and wake him up. Can I take you to a little before that. You're there at the latter stage of the surgery, is that correct, and you're watching it? You've given your evidence to the PSNI that that's a very important function, to keep a watching eye over everything, not just the instruments, but over what's happening, even down to how the wound looks; is it moist, and all that sort of thing. You've given that evidence.

A. That's what I was trained to do.

Q. I understand that. Were you therefore watching the progress of it, the wound being sown up and so forth, right to the very end?

A. Well, the point I made a few minutes ago was that towards the end I was occupied less on the wound. Once the kidney had been implanted and the wound was closing, there would have been less of a need for me to observe closely the extent of the operation and what was happening.

Presumably, at that stage, the blood loss had ceased and there was no further risk of bleeding because there was no cutting taking place. So that was the stage at

which everything was being sutured, closed.

So when one comes toward the end of an operation, maybe one doesn't need to inspect the wound and look at the overall picture of the patient in quite the same way that one needs to do it when the wound is being opened and explored. So I think my point is that my attention was less towards the surgical elements of the patient and more towards the anaesthetic elements of my care.

Q. Would you be starting to do anything with the anaesthetic elements before Adam's surgical wound had been sown up?

A. Well, that would be a time when I reviewed the depth of his anaesthesia, and when it was time to start lightening him up and starting to see if there were signs of spontaneous breathing.

Q. If somebody had been going in and out of the operating theatre, would you have been aware of that?

A. I can't say.

Q. If --

A. I could be so intensely occupied on observing the patient. Anaesthetics don't switch off like a light switch. There's a period of recovery. There's a period of waking up. So very often I would look for spontaneous breathing to come before the patients actually awake.

Q. I understand.
A. Mentally awake.
Q. And when I just made that suggestion as to when Mr Keane left the operating theatre, was that the first time that you had turned your mind to the fact that he might not actually have been there at the end?
A. No, I would have -- I believe I would have read that in his statements previously.
Q. Do you have a view about it?
A. In which way?
Q. Any way.
THE CHAIRMAN: If he doesn't remember what happened, he can't, I think, have a view which I can rely on.
MS ANYADIKE-DANES: Okay, thank you.
Can I just ask you about --
THE CHAIRMAN: Sorry, that's not quite correct.
Whatever you remember about Mr Keane, do you remember Mr Brown being there?
A. I do, yes. For the operation or for the end, sorry?
THE CHAIRMAN: At the end.
A. Oh, at the end, I can't remember. I remember Mr Brown being in the operation. I don't remember when he left.
THE CHAIRMAN: Thank you.
MS ANYADIKE-DANES: Thank you. Do you remember who was sewing Adam up?

A. No.
Q. Can I just ask you then, when you were lightening up his anaesthesia and trying to bring him round, where does that happen?
A. In exactly the same place.
Q. The operating theatre?
A. Yes. One does that in advance of the full closure of the wound.
Q. In advance?
A. Just because you're breathing and making a movement doesn't mean you're awake. Adam was asleep. Patients are asleep the entire time they're having surgery, but they can still have reflex recovery of some functions and still be asleep.
Q. When you're lightening his anaesthesia, have you, at that stage, taken the towels off his face in the way that you described in your earlier statement, or do you start lightening the anaesthesia and checking how deeply he's under with the sterile towels still over his face?
A. I don't know if the sterile towels were over his face. It's my practice not to put the sterile towels over his face. I don't know how that misinterpretation or inconsistency has appeared in my record.
Q. Okay.
A. But I would be looking at his vital systems, to look at

his face and his pupils and to see signs of recovery from his anaesthetic.

Q. And when you saw him like that and realised that you weren't seeing the signs of recovery, what was your immediate thought?

A. Well, I can't remember, but I would have been concerned that some event had happened that was causing him not to wake up.

Q. And would you have voiced that to anybody in the room; would you have discussed that to try and see what that "some event" might be?

A. I would imagine, yes, I would discuss that. If I was having an anaesthetic problem, I would discuss that with people in the room, yes.

Q. With whom?

A. Whoever was available.

Q. The surgeons?

A. If the surgeons were busy concentrating on something of more importance, then I would --

Q. At that stage they're closing --

A. Yes.

Q. -- so if that's what they're doing, they're closing, you're trying to lighten his anaesthesia and bring him round; there's not any response, and you have seen his face and neck. It's puffy and you say, "Yes, I would

have discussed that with anybody in the room". So my question is: would you have discussed that with the surgeons?

A. Yes.

MR MILLAR: Sir, the entire question [inaudible] were there any surgeons in the room.

MS ANYADIKE-DANES: I presume somebody's closing him up.

THE CHAIRMAN: Somebody's closing him up.

MR MILLAR: We're in the plural, so there's an assumption in the question that there were surgeons plural and my learned friend knows very well that there's an issue about whether there were two surgeons in the room.

MS ANYADIKE-DANES: You're absolutely right, and the reason I used the plural is because so far in his evidence, Dr Taylor has not excluded the possibility that there were two surgeons.

THE CHAIRMAN: I've got the point.

The question was: would you have discussed that with the surgeons? You said -- Mr Millar interrupted. Somebody was closing Adam up, so there was at least one surgeon in the room, in the theatre.

A. Well, I'm going back to stage, the stage of this point in time. It wasn't a point in time, it was a stage of closing, so I don't know how far into the wound closure or if the wound closure was done and the dressings were

going on, but some time towards the end of the procedure, most likely before it was completely finished, I would have started the process of trying to wake up Adam.

MS ANYADIKE-DANES: Before you would even have started that process, you would have seen his face was swollen and his neck was swollen, so something was awry, if I can put it that way?

A. Yes.

Q. And then of course you start the process and that process is not being successful, if I can put it that way?

A. Yes.

Q. So all I am trying to ascertain from you is, irrespective of whether there was one or two surgeons in the room, if you had that kind of concern, did you voice that to surgeon, surgeons?

A. I cannot remember.

Q. Well, I would imagine that's a very worrying moment when that happens.

MR UBEROI: I do appreciate why the issue is being explored, but I do wonder if the witness can take it any further --

THE CHAIRMAN: Ms Anyadike-Danes, the note I have is that when he didn't see signs of recovery, he was concerned.

He imagined that he would have discussed it with whoever was there, but he doesn't know who was there.

MS ANYADIKE-DANES: Thank you very much, Mr Chairman.

Are you aware of whether Dr O'Connor is in the room at that stage?

A. I have no memory of who was with me at that stage.

Q. Do you know Eleanor Donaghy, the transplant coordinator?

A. Yes.

Q. Are you aware of whether she ever entered the operating theatre, whether at that stage or slightly earlier?

A. Well, of course I've read her report, so that has confused me to know that she was there, but I can't actually remember if I remembered her in the room at that time.

Q. Well, at what point do you realise that something really quite serious has happened and Adam needs to be transferred from the operating theatre somewhere else, to paediatric intensive care, for example?

A. I think I've said towards the end of surgery.

Q. And you go with him?

A. Yes.

Q. And who else accompanies you?

A. The normal practice would be for the anaesthetist and the nurse who's assisting the anaesthetist and the MTO to take a patient to intensive care. I can't remember

who that was.

Q. And when you take Adam to intensive care, which is not very far away from that operating theatre, quite a short distance, do you do a handover to somebody?

A. I can't remember, but yes, my normal practice would be to hand it over to the doctor, or doctors and nurse or nurses in the intensive care.

Q. And is the nurse who's accompanying you doing her own handover to the intensive care nurses?

A. That would be the standard practice.

Q. Can you recall what you said in the course of that handover?

A. No.

Q. Do you recall Professor Savage coming to the intensive care unit?

A. I don't recall him coming to the intensive care unit, but I remember that he was with me in the intensive care unit at some stage. I don't remember the time.

Q. Before you actually took him to intensive care, what did you do to try and recover the situation with him? What was prescribed; what did you do?

A. I have no record of what I did, but my practice would be to look at the anaesthetic drugs to see that his neuromuscular function had recovered and to inspect -- to do an examination, physical examination of his

breathing, and airway and muscles and his cranial nerves to see if there was any response in his cranial nerves. Bearing in mind that he had had sedative drugs still on board, it would be difficult to elicit some of the responses that I would be looking to elicit.

Q. But what did that bloatedness or puffiness mean to you?

A. I think I've said that Adam had necklines previously that could have obstructed his drainage of fluid from his face, and he was also in the head down position for part of the operation, as I remember. That can produce a swollen or puffy face in a patient.

Q. Not related to fluids at all?

A. Correct, who doesn't have -- being in the head down position alone without having your neck veins previously interfered with can produce swelling of the face.

Q. And whose decision was it for him to be in the head down position?

A. It was the surgeon's.

Q. The surgeon's?

A. Yes.

Q. Does that mean he's actually tilted downwards or just his head is back?

A. Yes.

Q. His whole body is slightly tilted downwards?

A. Yes.

Q. Why does the surgeon want that?
A. Well, you could ask the surgeon if you want the definitive answer, but my understanding is so that it brings the bowels and the other contents of the abdomen headward to allow him further, better access into the lower part of the abdomen.
Q. Yes, but you knew, so you told us earlier today, that -- at least you believed that some of Adam's veins had been ligated because you could see the scars of that; in fact that was why you thought you had difficulty getting the central venous line in in the first place?
A. Yes.
Q. Did it occur to you that Adam being in that position -- was he in that position for the duration of the surgery?
A. I don't remember.
Q. Do you know who puts him in that position; are you asked to do it or does somebody else do it?
A. It could be any one of a number of people. It could be the medical technical officer, or the runner or the anaesthetist.
Q. Because that would affect how your lines were, you'd have to re-zero --
A. Yes, so that could have been one of the re-zero points, presumably.
Q. So when you're asked to do that and you know about his

central venous line and you're thinking about ligations previously in his neck vessels, did you have any concern about him being in that position for a prolonged period?

A. I don't remember, but it would be my practice to be concerned about a patient, who had obstruction to his neck vessels, to be in the head down position for prolonged periods of time.

Q. Was it something you thought about for Adam?

A. Yes.

Q. And if you thought about it for Adam, was it something you raised with the surgeon or surgeons?

A. I can't remember.

Q. Well, if you were concerned about it, or it's something that you might have been concerned about, is there any reason why you wouldn't have raised it with the surgeon?

A. I certainly ought to have raised it with the surgeon.

Q. I just want to ask you a question about X-ray. It's just a point of clarification, really, Dr Taylor.

I wonder if we could pull up 058-035-142. Then if we go to the first third. I'm trying to see if we see your reference to "unchanged CNS overnight".

THE CHAIRMAN: Yes, 7.45 am.

MS ANYADIKE-DANES: "Diffuse oedema on chest X-ray".

A. Yes.

Q. So you were looking at his chest X-ray that had been --

do you know which one you were looking at? There were two taken the previous evening.

A. Well, can I say that my note might refer to my own examination of the chest X-ray or it might refer to something I had been either verbally or had seen written down by somebody else.

Q. Yes.

A. I can't remember if this was a personal examination of his X-ray, which is possible, or if it was a report from somebody else, and likewise my other statements could be equally attributable to somebody else.

Q. I was just going to ask you that. You see a little bit to the right:

"Electrolyte/fluid problems overnight."

A. Yes.

Q. And then what have you written there? "PD", is that peritoneal dialysis?

A. Peritoneal dialysis, I presume.

Q. "Unable to"?

A. Get negative balance.

Q. So the peritoneal dialysis was unsuccessful overnight; is that correct?

A. That appears to be what that statement contains.

Q. I think his mother says it was weeping and wasn't able to contain the fluid?

A. Yes.
Q. But at that stage, is what you're saying that you can't tell now whether that is your own conclusion that you have recorded or something somebody told you and you've recorded that?
A. Yes, that's correct.
Q. In any event, on the 28th, somebody has communicated or you have divined it yourself that there's an electrolyte fluid problem?
A. Yes. I usually come into work early, about an hour and a half before my theatre list is starting. I'm not in ICU on the 28th, I'm actually in the operating theatre the next day. But I come in early, usually, and this is a note that I've written because I wanted to check up on Adam before I started my other duties.
Q. If we can just move to the communications with the family, just to be clear on two points. Firstly, you were not part of taking the original consent for the transplant surgery; is that right?
A. That's right.
Q. Did it ever occur to you that it might be appropriate for you to be part of that process?
A. My understanding and reading Dr Haynes, I think he's put it well, is that the anaesthetist doesn't actually seek written consent from the patient. The anaesthetic

process is to give information.
Q. That's what I meant, part of the process; did it occur to you that you should have been or could have been part of that process of imparting information round about that time?
A. Yes, that is my usual practice.
Q. But you weren't on this occasion?
A. I didn't conform to my usual practice.
Q. Thank you. Now can we come to after the surgery; you go with Professor Savage to see Adam's mother, isn't that right?
A. That's correct.
Q. And is that part of your usual practice, to do that when things have not gone as they ought to have gone?
A. It's my usual practice to see all my patients, and parents where possible, after their operation.
Q. Can we pull up --
A. But certainly if there's been an event, that would be obligatory.
Q. Yes. You may not be able to answer this, but is that something that you would feel the entire team should go -- so surgeon, anaesthetist and neurologist -- to try and explain to the family as best they could what had happened?
A. I only undertook training in anaesthesia and the

practice I was taught was to go and see patients afterwards, so that one could be aware of benefits and complications of one's own practice.

Q. Have you --

A. I can't comment on other training programmes, but that was my programme.

Q. Have you previously attended with a surgeon to try and explain what had happened during theatre?

A. To explain a complication?

Q. Yes.

A. I can't remember specific patients who had suffered complications where I would have gone with a surgeon, but ... I would give -- go and visit a parent or patient with myself or accompanied by another doctor who participated in the procedure.

Q. I understand. I wonder if we could pull up witness statement 001-1, page 4, and if we look at the penultimate paragraph:

"I do remember clearly --"

Well, perhaps we'll give it some context. This is a statement, the first witness statement for the inquiry by Adam's mother.

THE CHAIRMAN: Four lines down.

MS ANYADIKE-DANES: Yes, I was just going to give it some preface:

"I was told Adam had been taken directly to PICU by Dr Taylor and that he was slow to waken. I was not told why he was so severely bloated. I was told that things had gone drastically wrong. I cannot be specific, but I have a memory that all the information at this stage came from Dr Savage and Dr Taylor. I do remember clearly Dr Taylor telling me that it was a one in a million thing, although he did not say what that one in a million thing was."

What did you mean by that, when you told Adam's mother it was "a one in a million thing"?

A. I've read this statement many times and reflected upon it, and I wholeheartedly apologise for the suffering and memory that Adam's mother has of this really quite silly statement from me. I have learned my lesson that it is incorrect to quote meaningless statistics to patients. Statistics are poorly understood by the population, otherwise nobody would participate in the lottery, for instance. I apologise unreservedly for using that statement. I no longer use silly statements that are meaningless. Apologies.

Q. I've got just a few more points, Dr Taylor. One of them relates to matters that happened after the surgery, and indeed after Adam's death. There was an inspection of the anaesthetic equipment?

A. Yes.
Q. And Dr Gibson was there and you were there?
A. Yes.
Q. I think the inspection was also the subject of a report by a Mr Wilson and Mr McLaughlin, and I think you'll have seen that report?
A. Yes.
Q. What I'm going to put to you is that they were looking at the equipment that had been used in the operating theatre at the time of three children's surgeries, one of whom was Adam, and the whole purpose of it was to see if there was anything wrong with the equipment.

As it turned out, they were not looking at all the equipment that had actually been used for Adam's surgery; why didn't you appreciate that at the time if you were present?
A. I'm sorry ...
Q. The actual equipment -- let's pull up the report. 011-004-014. That's the report. I'm trying to find the particular part of it that suggests that they were not viewing the right equipment. Perhaps if you'll forgive me and we'll come back.

It's also the subject of correspondence from the PSNI when it's made clear in correspondence with the trust that they recognise that the incorrect equipment

was being looked at because the correct equipment actually had been taken away and was on test in the department. So therefore, they weren't looking at the equipment that had been used in Adam's surgery.

Now, are you aware of that fact?

A. Yes.

Q. Right. Maybe while we're waiting for the correct bit of the report to come up, we can discuss that. If you recognise that they themselves queried whether they were looking at the right equipment, and subsequently it has been accepted that they weren't looking at the right equipment, how is it, when you were there with them, along with Dr Gibson, you weren't able to point out that you didn't think this was the right equipment; why didn't you know they were looking at the wrong thing?

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

Q. Because I think during your interview with the PSNI they specifically asked you to confirm that you were absolutely certain that they were looking at the right equipment. I presume they were asking you that because they knew already there was some concerns about what was being looked at. You were quite sure that they were looking at the right equipment, so how did that error come to be?

A. I don't know.

Q. I was going to ask you about your awareness of Arieff and his team's article. You've already said in your deposition to the Coroner that you were aware of it and you have sought to explain earlier yesterday, I think, what you thought its significance was, which you didn't think it did have -- at that time anyway, you didn't think it had significance for a case such as Adam's. But do you think it has wider significance in terms of alerting the profession to the potential risks of dilutional hyponatraemia?
A. Yes.
Q. Did you recognise that at the time?
A. Yes.
Q. And I think you've said that since Adam's case, you no longer use Solution No. 18; is that right?
A. I said I no longer use it as a bolus.
Q. And why is that?
A. Because of the dangers of dilutional hyponatraemia.
Q. And have you communicated that fact to your colleagues, or did you at the time communicate that fact to your colleagues?
A. Yes -- my paediatric anaesthesia colleagues?
Q. Yes.
A. Yes.
Q. When did you stop using it as a bolus?

A. Well, I certainly stopped using it as a bolus after Adam. I can't recollect if I ever used it as a bolus before Adam, but I certainly stopped using it as a bolus after Adam.

Q. Yes. And if you recognised the wider implications of the risks of dilutional hyponatraemia that the Arieff article suggested -- and maybe we can pull up your deposition to the Coroner because there is a statement or a draft statement attached to that deposition, is there not? It will be 011-008 of the --

MR UBEROI: Sir, I'm happy to hear the question before I form my final view as to whether to object, but I just wonder if this is a matter that's more appropriately dealt with at the governance stage of proceedings.

MS ANYADIKE-DANES: You might be right. Let's have the reference anyway. 011-014-107A. There we are. I understand my learned friend's point, but we're simply at the point --

THE CHAIRMAN: This is part of -- we can come back to the governance, but there's no reason why we can't establish the facts behind the statement at this stage.

MR UBEROI: Yes.

MS ANYADIKE-DANES: You start off by talking about the rare circumstances -- firstly, this is signed by you; is it signed by you because it's something that you have

drafted or is it signed by you because you're adding it to your deposition?

A. I don't think I wrote this.

Q. Sorry?

A. I don't think I wrote this statement.

Q. Were you part --

A. I've signed it because I have received it.

Q. Were you part of a team that may have compiled it?

A. Yes.

Q. So then by signing it and attaching it to your deposition, I presume that means you were accepting it?

A. Yes.

Q. And if you were part of a team, were you part of the team deciding what should go into such a statement as this?

A. Yes.

Q. And what was the purpose of it?

A. To alert other anaesthetists to the risks of dilutional hyponatraemia.

Q. It starts off by referring to the information contained in the paper by Arieff et al and talks about the rare circumstances of Adam Strain's case. But it says:

"Having regard to that information ..."

Then it goes on to refer to what's going to happen, and what's going to happen is that in future, all

patients undergoing major paediatric surgery who have a potential for electrolyte imbalance will be carefully monitored according to their clinical needs and, where necessary, intensive monitoring of their electrolyte values will be undertaken.

Now, just pausing there, why were you restricting that warning or change in practice to simply patients undergoing major paediatric surgery who had a potential for electrolyte imbalance; why just them?

A. Well, I don't know.

Q. But you're part of a team and you start off by a reference to Arieff's article. Arieff's survey of children is not restricted or, in fact, it didn't involve children who were undergoing major paediatric surgery. That was part of the point. That was what he was alerting people to. This could happen in perfectly healthy children, children undergoing minor surgery or children with relatively minor conditions.

MR UBEROI: Sir, I am only anxious to forestall potential confusion. I don't know if the witness could be taken through it along these lines: firstly, whether he is aware who drafted it and if so, whether he is therefore aware what the drafter meant by a certain line.

THE CHAIRMAN: As I understand it, Dr Taylor said he was part of the team who wrote it. He said he signed it to

show he had received it. He didn't think he had wrote it, but subject to the full LiveNote, I think he said he was part of the team which wrote it, and the purpose was to alert others to risk.

And Ms Anyadike-Danes is really saying to him: it's fine to alert others to the risk in terms of major paediatric surgery for children who have a potential for electrolyte imbalance, but why is it restricted to that group. And his answer was, as I understand it, "I don't know".

We will certainly come back to this at governance, Mr Uberoi, but perhaps if we bring this to a head. Perhaps just the question is: do you agree that it should be restricted in the way that it was restricted, to major paediatric surgery for children who have a potential for electrolyte imbalance?

A. It seems that it should have been opened up for all patients undergoing surgery, in retrospect.

MS ANYADIKE-DANES: When you said that the purpose was to alert your colleagues or to communicate that information to your colleagues, how were you going to do that or how was that being done?

A. I think there was a meeting of the paediatric anaesthetists and we all agreed to this statement, is my recollection.

Q. No, no, no. Having agreed that this is a statement that should go out or this is the change in practice, how do you then communicate this to your anaesthetic colleagues or is it restricted to your anaesthetic colleagues in the Children's Hospital?
A. That's what I think it means, yes. That's what I thought it meant, since that is the only place where major paediatric surgery is undertaken or was at that time.
Q. Sorry, I was interrupted when I was trying to hear your answer as to whether you agree that it was appropriate to restrict it simply to major paediatric surgery; was that appropriate?
A. In retrospect, it seems that it should have been spread to all patients undergoing surgery, all children undergoing surgery. That's my view.
Q. Right. Well, before we get to in retrospect, you said that you had read the Arieff article. If you read the Arieff article, it has nothing to do with children undergoing major paediatric surgery. So why on earth would you restrict that change in practice or warning to only those who were involved with children undergoing major paediatric surgery? Why would you do that?
A. I don't know.
Q. Well, why would you restrict it to only anaesthetists

at the Royal when, for all you know, an anaesthetist somewhere in another hospital in the province may come to work at the Royal and not be blessed with the information that you just circulated amongst your colleagues in the Royal. Why would you do that?

A. I don't know.

Q. Why would you limit it simply to anaesthetic colleagues?

MR UBEROI: I rise again to query whether this is not more appropriately dealt with at the governance stage, sir. I fully appreciate the question that you permitted a few minutes ago about establishing his factual knowledge of this document, but in terms of the implications, ramifications, et cetera, that, in my view, would be pure governance.

MS ANYADIKE-DANES: I understand.

THE CHAIRMAN: I think if we had more time, I would allow it to be explored now, but we will be coming back to it.

MS ANYADIKE-DANES: Thank you, Mr Chairman.

I wonder if you'd just give me a moment. (Pause).

If you'll forgive me if I recap a few things I've been asked to recap with you, there are not very many, but this is one of them.

I think in some of your witness statements you've referred to the fact that the surgeons quite often want more fluids to be administered because it has a certain

effect on the perfusion of the kidney, or it assists that, and that there's always a bit of an tension with how much you administer. You're trying to take care of other matters and they have their concerns as well.

Can I ask you this: were you ever aware of the surgeons specifically asking you to increase fluids?

A. With Adam?

Q. Yes.

A. I can't remember.

MR UBEROI: Sir, at that moment, I'm not sure how many areas my learned friend is going to recap, but in terms of the time, I'm anxious the witness has his break at the appropriate moment. He's been going for an hour and 25 minutes now.

THE CHAIRMAN: We'll have to have a shorter break if we're going to finish at about 4, and we still expect to finish Dr Taylor, yes?

MS ANYADIKE-DANES: Definitely.

THE CHAIRMAN: Why don't we break now for 10 minutes and you can liaise about what recapping has to be done and organise whoever's going to ask any more questions, so that we do finish at approximately 4 o'clock.

MR UBEROI: Thank you, sir.

(3.25 pm)

(A short break)

(3.35 pm)

THE CHAIRMAN: Where are we?

MS ANYADIKE-DANES: Just a few minutes, Mr Chairman.

I wonder if we could pull up witness statement 006-03, page 17. This is a witness statement of Mr Keane. If we go over the page to page 18. This is Mr Keane explaining what quantity of blood constitutes major bleeding. He gives a description; a commonly used one is bleeding requiring more than two units of blood to replace blood loss. He says that by that definition, Adam did not have major bleeding.

If we flip back to page 17, where I started off, this is really an answer to trying to get to grips with the point that I was putting to you, Dr Taylor, which is to comment on Mr Keane's position that if you started with a haemoglobin at 10 and it ended up at 10 and you received between 250 and 350cc of blood, then it's very difficult to say that he sustained major bleeding or any significant blood loss. He was asked to provide his calculation for Adam's total blood loss and he has provided it there.

Is this a document that you've seen before, Dr Taylor?

A. Yes.

Q. He's provided his calculation and I'm just wondering,

since you have seen it before, is it something you accept; are you in a position to accept it? Because you acknowledged previously that you had different views from Mr Keane as to the extent of blood loss.

A. Well...

Q. Go over the page --

A. Sorry --

Q. I was just going to help you by going over the page and seeing the actual calculation -- sorry, too fast -- it starts off:

"Paediatric blood units contain anything from 180 to 250cc. Adam may only have received 360 ml of blood and ended up with a haemoglobin level 4 grams higher than he started with and the blood loss can be estimated by the following formula ..."

So he uses a formula to assist with his calculation of blood loss. What I'm asking you is since the two of you have different views, what is your comment, if you can, on Mr Keane's way of calculating the extent of Adam's blood loss?

A. I think the only bit of the difference between our two calculations may have been -- although I didn't use this, I used the swab count, and the suction and the estimate on the towels -- that the only difference I can see is that my records would have indicated 500 ml of

blood and he has indicated the patient got 360 ml. I think that's the only inconsistency between the two calculations. It's on the previous page at the bottom.

Q. All right. Then can we go to (c) then, which was another matter that you were helping us with. This is one of the things that helped you to formulate the view that he had actually suffered significant blood loss.

We have asked the question of Mr Keane if he could explain the reasons for Adam's haemoglobin level of 6.1 and haematocrit reading of 18 per cent -- that's 9.32 on the blood gas analyser -- and what Mr Keane says is there are two possible causes: bleeding --

THE CHAIRMAN: There are only two.

MS ANYADIKE-DANES: Sorry, there are only two possible cautions: bleeding or haemo dilution, and in Adam's case it's dilution. So he is saying, yes, you can have that sort of change, but that doesn't only have to be as a result of bleeding. It's perfectly possible for it to be haemo dilution, and he says in Adam's case it's dilution; what's your comment on that?

A. Well, reflecting on the expert cases in late 2011, it's now known that the hypotonic fluids that I gave to Adam would have, by osmosis, travelled well outside the circulation and into the other spaces in the body. So although he got dilutional of his sodium, the fluid

I gave him, the water component of the hypotonic fluids, would have apparently rapidly exited the circulation and gone into the body tissues. So yes, he's correct, haemo dilutional effect of the blood can account for lower haemoglobin.

Q. Is that what you think happened?

A. I think there was an element of both bleeding and haemo dilution because the fluids I gave would have not stayed in the circulation to cause such a large degree of dilution, but I don't know exactly how much the contribution would have been.

Q. Leaving aside that, does it remain or was it your view nonetheless, in 1995, that Adam sustained significant loss of blood during his transplant surgery?

A. The swab counts and the suction would have suggested that. That was my observation.

Q. Thank you. I wonder if we could now move to a slightly different topic and pull up reference 059-067-156 -- sorry, if we go to 155, we'll see what this document is.

This is a letter that you are writing to Dr Murnaghan, who was a director of medical administration, on 30 November 1995. So it is very, very proximate to Adam's death. He died on the 28th and within a couple of days you're writing this letter. We may well look at this letter for other purposes during

governance, but let's go to 156. There we are, and if we can go to the penultimate paragraph:

"I accompanied Adam to the CT scan room later on that day and was informed by the neuroradiologist that he had gross cerebral oedema and herniation of his brain."

Then of course you say that you simply cannot offer a physiological explanation for such severe pulmonary and cerebral oedema in the presence of normal monitoring signs.

But the point that I'm putting to you is: you went yourself to the CT scan and received the information that what was being seen there by the neuroradiologist was gross cerebral oedema and herniation of Adam's brain; is that correct?

A. Correct.

Q. I wonder, therefore, if we can go to witness statement 012-2, page 26. This is the autopsy request form; is this your writing?

A. It's my handwriting, correct.

Q. So you filled this in?

A. Yes.

Q. Can you see under "Investigations", the third line:

"CT scan, gross cerebral oedema, obliteration of ventricles."

Is that right?

A. Yes.

Q. And this is the autopsy request form that would have gone to Dr Armour --

A. Yes.

Q. -- and part of the information that she would have received to help her understand what the clinicians thought had happened. She has to do her own work of course as a pathologist, but at least what the clinicians thought; is that right?

A. Yes.

Q. And I wonder if we can go over the page to page 27; is this your hand?

A. Yes.

Q. And you've signed that at the bottom?

A. Yes.

Q. If we go right down to the bottom, where it says:

"I am surprised and devastated that the ..."

And although it says "T" there, I presume that's "CT", we've just chopped it off in photocopying:

"... CT scan and chest X-ray showed such gross oedema in the presence of normal serum albumen colloid pressure and blood sugar."

This is another bit of the information that goes to Dr Armour, is that right?

A. Yes.
Q. So what you're telling her is that, so far as the neuroradiologist is concerned and so far as Adam's clinicians were concerned, the CT scan was showing gross oedema; is that correct?
A. Yes.
MS ANYADIKE-DANES: Thank you very much. Give me just one second.
Thank you very much indeed, Dr Taylor.
THE CHAIRMAN: Thank you, Dr Taylor. Mr McBrien?
Doctor, I should say I had indicated yesterday we were going to stop at 4 o'clock today. I think for reasons you'll understand, Mrs Slavin's barrister wants to ask some questions. This will not be repetitive questioning. These are developments of issues or other issues which have not yet been raised. I hope you'll understand that I won't cut him short at 4 o'clock and say it's too late. We'll see how far we can get.
Do you have any estimate, Mr McBrien?
MR McBRIEN: I don't, sir. It will depend upon the answers that are given by Dr Taylor. But I'm grateful to you, sir, for the indication given and that we may continue beyond 4 o'clock for the moment. I am also extremely conscious of the witness protocols in respect of repetition and duplication. I shall do my best not to

go where I shouldn't go, but I'm grateful to the indications given so far.

Questions from MR McBRIEN

MR McBRIEN: First of all, Dr Taylor, I'm sure you have been following, with the benefit of your legal team, the developments in the inquiry and I'm sure -- correct me if I'm wrong -- that you will have read the clinical opening statement, which I made on behalf of the family of Adam Strain.

One of the key questions which Debra Strain -- Debra Slavin as she now is -- wants answered is: why did you make so many mistakes? We've heard over the last two days your evidence; we have heard how you have responded to questions put to you by senior counsel for the inquiry.

It may come as no surprise to you that the family over the years have also read closely the various statements which you have made. You may also recollect that at the time of one of the review hearings this year, back in February, just following your limited statement of admission, that Debra was reported as having said it was a start.

Well, it was indeed a start. We've moved somewhat further over the last two days, but, unfortunately, we still have a number of questions we want answered.

Now, bearing in mind the answers you have already given and the questions that have already been put to you, I'd be grateful, with the chairman's indulgence, if we could just go through a little more detail of some of the things you have said, because the family are desperate to find out why you behaved as you did on that morning.

They're conscious of the fact that you have been an anaesthetist for the last 16/17 years; you have given evidence that you have had other successful transplant operations. So on that basis, they want to know why you behaved in the manner in which you did on that particular morning.

You have indicated that you can't recall.

MR UBEROI: Sir, I'm sorry to interrupt my learned friend's flow, but I do wonder if there's going to be a question.

THE CHAIRMAN: Is that a general question to Dr Taylor, why did he make so many mistakes?

MR McBRIEN: I'm just starting now, sir.

THE CHAIRMAN: Let's get started.

MR McBRIEN: Yes.

So dealing, first of all, with the circumstances surrounding the timing of the operation. We have heard the evidence as to how it was put back; we have heard the evidence of Dr Savage and yourself as regards the

phone calls.

Can you assist us, then, on the following point, because Mr Keane has emphasised in one of his witness statements how important it is for a clinician not to be exhausted.

Now, you indicated the European directive, we're going back before those days. In 1995, you indicated there was no structure in place as regards anaesthetists on call at the weekend. Going back to the pre-European directive times, how much sleep would you have normally required before such an operation?

A. That's a difficult question to answer for certainty and I can't answer it.

Q. Well, are you the sort of man who could have operated with only two hours' sleep a night or a minimum of eight hours' sleep? You must have known through your own professional career how much sleep you like to have on average.

A. Well, I have worked in medicine since 1982, and I have been on call and available and there are times when one works very long hours and is asked to take on cases when one has not had what would be known as a full complement of sleep.

I trained myself to work with being on call, being on duty, with rest periods and without taking a full

complement of sleep. So sometimes I have been asked to undertake procedures with only two hours' sleep.

Q. Because I just want to check. You said you were phoned at home at 11 o'clock on Sunday night and Dr Montague -- I don't know whether I'll need to put the reference to you -- in one of his witness statements indicated that he telephoned you "many hours after midnight" about the inability to insert the line into Adam. I don't know how long that telephone call lasted, but you said that you left home at 5.15. Do you remember the phone call of Dr Montague?

A. I actually didn't remember the phone call until I read his statement.

Q. Between how much time do you think you might have spent from getting up to leaving the house?

A. It would normally take me between 30 and 45 minutes to get ready to go to work.

Q. That would bring us back to then 4.30 in the morning?

A. Yes.

Q. In your police interview notes you gave four reasons for the delay that morning. I just want to ascertain whether you're still sticking with those reasons. The first reason that you gave was to ensure that the operating room staff were not too exhausted. I just wanted to check, to whom precisely were you referring?

I can get the page reference if you want.

A. I presume I was referring to the surgeon and the anaesthetist.

Q. The second reason you gave was the new day staff would be coming on duty. Were you referring to the nurses, or to the doctors or whom?

A. I presume both.

Q. And did you know when they were coming on duty?

A. Nurses change shift at 8 am, doctors change shift at 9.

Q. You gave a third reason. You said a paediatric intensive care bed would be available if the operation was delayed. Does that mean that there wouldn't have been an paediatric intensive care bed available during the night?

A. I think what I meant to say is that in the morning the consultant goes round -- the normal practice would be for a consultant to go round paediatric intensive care and see who was fit for discharge and who could be taken off the ventilator, and then a bed would be available that morning. If there was to be a bed available, it would be available -- a decision would be made to make a bed available at that time of the morning.

Q. You then went on, the fourth reason was that you wanted to ensure that the emergency theatre would not be blocked by a semi-elective case. Does that mean there

was only one operating theatre available at nights and weekends?

A. Yes.

Q. If I can move on now then to who was to be present in theatre, and so forth, and when.

MR UBEROI: Sir, I'm sorry to rise. I do so for this reason and I'm sorry to interrupt my learned friend. It does seem to me that we are duplicating topics here that you have had the benefit of a very thorough cross-examination from your inquiry counsel on.

The hearing procedures at rule 6.5 state that, in any event, any questioning of the witness beyond that of inquiry counsel must not duplicate or repeat previous questioning of that witness.

So my submission is that your procedures are clear that there must not be that duplication, and as I say, you have had the benefit of a very extensive cross-examination on behalf of inquiry counsel, whom herself has had the benefit of lines of questioning being submitted in advance by the parties to include Mr McBrien. So I do raise this question as a question of fairness. If one is to set a precedent of allowing that duplication, then where in fact would it end?

THE CHAIRMAN: Thank you.

Mr McBrien, just to explain, because your clients

and maybe various other clients will not necessarily be familiar with inquiry procedures as opposed to litigation, just to spell it out, one of the differences is that in this inquiry, similar but not identical to other inquiries, the main questioning, overwhelmingly, is done by inquiry counsel. Some other inquiries allow no questioning beyond inquiry counsel. I'm reluctant to be as restrictive as that, but that's why I'm limiting any additional questions from you to questions which are not repetitive or duplicating.

MR McBRIEN: I understand that, sir, and what I have tried to deal with -- I would hope that none of the questions I've put so far have actually been dealt with in the detail, in which senior counsel has dealt with them. They're tweaking of some of the answers and going into slightly more detail than some of the points that have been raised on the key issues.

THE CHAIRMAN: Well --

MR McBRIEN: But I am conscious of what my learned friend has said.

THE CHAIRMAN: Please bear that in mind and I hope you can explain to your clients why and how there's that, in an inquiry, we don't allow everyone to have a go because if we were to do it in that way, the inquiry hearings would go on and on forever.

I accept that there are issues which are very important and I understand that your clients feel very strongly about Dr Taylor, and they may have a perception, which I hope they don't, that because you don't ask a lot of questions, Dr Taylor hasn't been properly questioned. If that is what they think, I want to make sure that they understand that is wrong in the context of an inquiry.

MR McBRIEN: The position is more that they want specific answers to specific questions.

THE CHAIRMAN: Mr Uberoi?

MR UBEROI: If I might respond to that. My concern is that through your procedures or Mr McBrien's response there, perhaps, the proper approach is not adopted in that the procedures are clearly aimed at a topic-based approach. It would plainly be very surprising if, word for word, an exact question had been asked for a topic by inquiry counsel during her cross-examination.

But I do again stress, in my submission, it's plain that Dr Taylor has given extensive, and helpful and important evidence on every single area that he can and he's been questioned in exhaustive detail on those areas.

And precisely, as just espoused by you, sir, the key point is this is not a jury trial where there's any

benefit in the same point being repeated in a different way or in a different voice.

THE CHAIRMAN: I accept your general point, and I don't think, Mr McBrien, that your reference to tweaking -- I think your reference to tweaking really misses the point entirely and is part of the basis of Mr Uberoi's complaint. Tweaking a question or getting a slightly tweaked answer is really not what questioning by you is about. The fact that you've described it in those terms means that you yourself might not have entirely got the point of the procedures.

So we won't have any more tweaking; we won't have any more asking a similar question in a different way. You can ask any point which has not been covered, and on which there's any substantive issue which remains unquestioned, you can put.

MR McBRIEN: There are omissions that I wish to cover, sir.

THE CHAIRMAN: You're about to go on to about who was to be present. That is an area which was covered at some length. If you have any specific point to put, please put it succinctly.

MR McBRIEN: Well, it was to do with that and the ischaemic time. There's one particular point that we're not conscious of having been raised by senior counsel to the inquiry, and that is that in your witness statement --

and perhaps this could be put up on screen, WS008-2/44. You stated that you were only informed --

THE CHAIRMAN: Which paragraph?

MR McBRIEN: 118(b).

THE CHAIRMAN: Do you have that, doctor?

A. Yes.

MR McBRIEN: It was just on that particular point, you stated that you were only informed of the long cold ischaemic time after you arrived at the hospital. I just wanted to check, is that still your position?

MR UBEROI: I'm afraid I would rise to make two points. One, the point has been covered, and two, there's a gloss there, the word "only" is not in the sentence. But the principal point is that issue was covered in terms by counsel to the inquiry.

THE CHAIRMAN: Mr Uberoi, generally I'd be sympathetic to that. I just want to -- the slight difficulty for your client is that he volunteered yesterday morning that he has made a series of -- included in his statements various elements which he doesn't stand over. He describes them as being "irrational" and "outrageous", I think. I will give Mr McBrien some limited scope on this, but because of your client's own description of his own statements yesterday, but it will be limited.

MR McBRIEN: We're just trying to ascertain, sir, through

this as to was it the case that Dr Taylor arrived at the hospital on the morning and only then discovered the long ischaemic time or did he know from Dr Savage the previous night? We're not sure from his evidence.

THE CHAIRMAN: Can you answer, Dr Taylor?

A. I don't understand where the word "only" comes in.

MR McBRIEN: Omit the word "only". Read your statement.

A. In other words, I was informed of the long ischaemic time after I arrived at the hospital on Monday morning. However, I cannot recollect whether I read it on the donor kidney transplant form or if I was told it.

I think what I'm doing is confirming --

THE CHAIRMAN: Sorry, the way that that answer is written suggests that that was the first time you became aware of the long cold ischaemic time and that you had not learned of it on the phone the night before.

I think Mr McBrien's point is, he's asking you to confirm if that reading of your answer, which seems to me to be the natural one, is correct.

A. That's correct. But I still think that it's possible that Professor Savage had told me about it the night before, but I couldn't remember.

THE CHAIRMAN: Okay.

MR McBRIEN: Can I take you now, please, and if I could put this up on screen, to 093-038-146. This is an extract

from your police interview under caution. You stated:

"Surgeons blame anaesthetists. We don't want to be responsible for taking the blame, taking the rap, because for sure they'll go back and tell the parent that the anaesthetist didn't give enough blood to make this kidney work. They will never say, 'I messed up'. It's human nature, it's surgical nature and that, unfortunately, has happened to me in the past."

I'm just wondering if we could clarify to what that was referring.

THE CHAIRMAN: About what had happened in the past?

MR McBRIEN: Yes. Was it a particular similar instance? Because we're trying to establish the relationship that existed between Dr Taylor and Mr Keane on that morning.

THE CHAIRMAN: Sorry, are you asking is this a reference by Dr Taylor, which refers specifically to Mr Keane?

MR McBRIEN: We don't know what it refers to. It's Dr Taylor volunteered this information in the interview, and it must have played a part in his mind since he disclosed it.

THE CHAIRMAN: Doctor, I don't need you to go into great detail on this, but when you said to the police that, as I understand it, surgeons will never say they messed up, they'll blame the anaesthetists, that is something which you say, unfortunately, happened to you in the past.

A. Well, unfortunately, I apologise for the uncharacteristic outburst of apparently unprofessional behaviour to surgical colleagues. That's out of keeping with my character. I had not done any paediatric transplants in Northern Ireland before Adam, but I had worked in Toronto for two years, as you can see in my CV, and I did undertake several kidney, liver and indeed a heart transplant.

And, unfortunately, I did recall a case where, when the organ didn't work, there was a review of the case and there was a concern by the surgeons expressed that the anaesthetist had not -- perhaps not given enough fluid. That had played on my mind. That's why I made that statement. I can't recall the specifics of the case that concerned me.

THE CHAIRMAN: In that event, you would have been the assistant at that stage in your training?

A. Either myself or another colleague would have taken the case. It was something that I would have memory of and that's why I made the statement, but I apologise for the unprofessional nature of the description.

MR McBRIEN: Would that have been in your mind that morning?

A. Cases like that stay in your mind for a very long time. It impacted on me, still does.

Q. On the mistaken assumptions that you made that morning,

especially the 200 ml urinary output, you have told everyone that you can't recall why you came up with that. You've given one possible hypothesis. What I'd like to ask you is: having seen the photographs of people in theatre and listening to your descriptions and so forth, would any of the following have been aware of your assumption of 200 ml; would Dr Montague have been aware of it?

A. I think so. It's an assumption. I can't say for sure.

Q. Would Mr Keane have been aware of it?

A. He has said he wasn't.

Q. But I'm asking you what you think. Setting aside what he has said, I'm asking you as the anaesthetist who was there in November 1995, knowing the procedures you would have followed, do you believe that the surgeon would have known your assumption as regards fluid output?

MR UBEROI: I'm not sure if a more helpful way of putting the question is: did you tell Dr Keane? It's going to be difficult for the witness to comment on the question as currently put.

MR McBRIEN: I'm obliged to my friend.

THE CHAIRMAN: Did you tell or do you remember telling Mr Keane what your assumption was about Adam's fluid capacity?

A. I don't remember any conversation I had with Mr Keane,

as I said before.

MR McBRIEN: I appreciate the fact you may not remember it, but would it have been part of your usual practice to have told Mr Keane?

A. Discussions of the fluid management of that degree may not have been part of my usual practice, but it is now something I would discuss now after learning from Adam.

MR UBEROI: If I may rise again to observe, that is effectively the answer to the question we had, as canvassed by inquiry counsel yesterday, and I am still concerned about the submission I made earlier.

THE CHAIRMAN: Thank you.

MR McBRIEN: I just wished also to ascertain whether it applied to Mr Brown or Dr O'Connor.

A. I can't say.

Q. I think you indicated at one point that you regarded the CVP as now being unreliable, but I just wanted to ascertain from your professional position. May the inquiry still rely on you having identified the waveform to which reference was made?

A. What's the question, sorry?

Q. Can I ascertain, do you accept that there was a waveform in the CVP?

A. When I inserted it?

Q. Yes. During the operation there was a waveform --

A. No, I'm sorry, I thought I'd made it clear that ...
Q. I'd be obliged if the witness didn't take a lead from my learned friend.
THE CHAIRMAN: I think the concern's the same one.
You thought you had made it clear that what, doctor?
A. When I inserted the CVP, I had to confirm it was in the vessel, it was inside the vessel and hadn't escaped and ended up in -- because it was giving a high reading, I needed to make sure it was actually in a blood vessel.
THE CHAIRMAN: Yes.
A. So there was a waveform.
MR McBRIEN: We noticed, sir, that the experts had raised queries about the waveform and Dr Taylor did refer to the waveform in two statements early on.
MR UBEROI: If I may rise one more time, sir, I am concerned now. I can understand why a little latitude has been allowed, but if further duplication of topics is allowed with this witness, the question will surely be: why would another witness not be allowed to have duplication, et cetera, et cetera, and it'd be never ending.
THE CHAIRMAN: Let me put it this way, Mr McBrien, I have already made the point about your clients needing to understand that I'm not cutting you off because I'm not interested. I'm cutting you off because the inquiry has

a procedure and that is why, as I understand it, every day this week you've been liaising with Ms Anyadike-Danes, Mr Uberoi's been liaising, Mr Fortune, Mr Millar and others to ensure that relevant questions are put by inquiry counsel.

I want to emphasise that I don't accept there's any unfairness to your clients in me curtailing any additional questioning. I don't really think you're covering new ground to date and if you really have any specific points other than tweaking, or revising or reasking, you need to put them now.

MR McBRIEN: If you'll permit me a moment then, sir.

THE CHAIRMAN: Yes. Look, I understand how your clients want many things asked and how they've waited a long, long time to hear Dr Taylor's evidence in this form ... (Pause).

I should also say, in ease of you and in ease of others, that if some significant new point emerges in later evidence, which is relevant to Dr Taylor, or any other witness for that matter, then I will arrange for Dr Taylor or whoever it is to be recalled to deal with any significant new point which we've all missed over the last few days, but only if it is really something significant and new --

MR McBRIEN: Yes, sir.

THE CHAIRMAN: -- and sorry, which I need to know about.
MR McBRIEN: Bearing in mind that Mr Keane is due to give evidence and that Mr Keane has referred in his statements to the importance of the CVP, under the heading of "Communication between the clinicians", we would be grateful, sir, if we could have clarification from Dr Taylor as to how the different statements are to be read, because we have Mr Keane talking about the importance of the CVP, but you will recollect in the clinical opening we drew attention to the fact that he didn't answer some questions because he wanted to know whether Dr Taylor had said anything on certain points. Perhaps this might be an appropriate time for me to ask Dr Taylor if he could assist on those two points.
THE CHAIRMAN: What are the two points?
MR McBRIEN: The two points were whether or not you told Mr Keane of the CVP reading of between 20 and 25.
MR UBEROI: Sorry to rise, sir, but if I may -- again, sorry to interrupt my learned friend's flow. Firstly, I understand you to be wanting to hear the points to decide whether the question was to be permitted; secondly, it's plain already that we're into a doubling up, in fact, on duplication, because not only has communication been explored in great detail, but so has

the CVP issue, so has the question of Dr Taylor's awareness of the CVP issue, so has the question of his awareness of Mr Keane's awareness of the CVP issue, and, as I say, this is actually in fact a doubling of the duplication point, and we can tell that already from the way the issue has been framed by my learned friend.

THE CHAIRMAN: Is this not a question which has been covered or an issue which has been covered, Mr McBrien?

MR McBRIEN: Well, I am not aware that we got specific answers to it, but I'm in your hands, sir.

Then if I may move on significantly, sir. May I put two further documents to the witness?

THE CHAIRMAN: Let's see what they are.

MR McBRIEN: First of all, the issue of the ligated vein. Could the letter from the trust be put to Dr Taylor, namely document 301-003-018.

THE CHAIRMAN: This is a letter of June 2010 in which the trust, or DLS on behalf of the trust, gave information about occasions on which the internal jugular vein could have been ligated.

MR McBRIEN: They basically made the case that there was no ligated vein. I'd just be grateful if I could have clarification from Dr Taylor. First of all, has he ever seen that letter?

A. I think I've read this letter. I might need a little

time to examine it. It depends on the question.
MR McBRIEN: I'd like to know whether he agrees with the terms of it or whether he takes issue about it. Perhaps he'd like a moment to read it on the issue of the ligated vein.
A. Right. (Pause).
MR UBEROI: May I say that's such a broad and open-ended question about a later dated 7 June 2010.
THE CHAIRMAN: I'm not sure what the question is. Are you asking this witness whether he agrees with the whole letter?
MR McBRIEN: No, on the issue of the ligated vein, our understanding is one of the issues troubling the experts was whether or not there was a ligated vein. This is a letter --
MR UBEROI: Dr Taylor's been very clear in his evidence on the question of the ligated vein.
THE CHAIRMAN: Take me back to that, Mr Uberoi.
MR UBEROI: I don't have a reference to hand, I'm afraid, but it was this afternoon with Ms Anyadike-Danes.
A. [microphone not on -- inaudible] so I knew they were ligated veins.
MR McBRIEN: Yes, so you assumed that there were ligated veins, but the evidence from the trust is that there were no ligated veins.

MR McALINDEN: Mr Chairman, I think it's important --

THE CHAIRMAN: If you catch the microphone.

MR McALINDEN: I think it's important, my learned friend may have some misunderstanding of the point being raised by the trust in this letter. The point being raised by the trust in this letter, in fact the evidence that will be given by Mr McCallion relates to the ligation of the internal jugular vein. It has never been asserted by the trust or indeed by Mr McCallion that none of the veins on that side of the neck had been ligated.

In fact it's quite clear that the procedure that Mr McCallion was involved in actually did involve the ligation of a vein, but that would have been one of the facial veins.

The point of the correspondence and the point raised and made, which will be made by Mr McCallion --

THE CHAIRMAN: Is about the IJV only --

MR McALINDEN: Yes, it's about that specific vein because that's the specific vein that Dr Armour alleges was ligated.

THE CHAIRMAN: Right. Sorry, your point, Mr McBrien, that you want to raise?

MR McBRIEN: We understood there was an inconsistency between the findings in respect of the left internal jugular vein being ligated and we formed the view that

this letter, together with the expert evidence of, I think, Dr Squier was saying that the left internal jugular vein could not have been ligated and forming an obstruction at the time of Adam's operation in November 1995.

MR UBEROI: If I may say, it's not really a question of what view has been formed by my learned friend on correspondence as he compares and contrasts it with expert evidence. It's taking a view as to whether this witness has been asked the factual questions with which he can assist on a topic, and, again, he has been.

THE CHAIRMAN: Mr McBrien, sorry, I'm still not sure what precise question you're asking Dr Taylor.

MR McBRIEN: Whether or not he agreed -- I will put it this way: would he accept now that the left -- first of all, have you seen the expert reports, Dr Taylor, of Professor Risdon and Dr Wayney Squier?

A. Yes.

Q. Would you accept now that the left internal jugular vein was not ligated and that your assumption based on the scar on the neck to the contrary must have been wrong?

A. Well, I'm not an expert on the ligation of veins, so I think what I'm being asked is: did I attempt a line on that side of the neck and why did I attempt a line? So I attempted lines in the jugular veins first because

they are more likely to cause a straight line for my central venous catheter towards the heart, and it's known and the letters confirm that a subclavian approach on the right side is more likely to be misplaced, in other words, go into the neck.

So my initial attempts -- and there were three -- to gain access to Adam's central line so that I could have a reliable CVP monitor number and trace was to attempt his jugular lines -- his jugular veins first.

Now, I knew that if he'd had Broviac lines in his neck, they would not be able to be -- I wouldn't be able to get blood -- a catheter down that vein. But I said to counsel in her questions earlier that sometimes a vein, even if it's been ligated in the past can be used again.

THE CHAIRMAN: Yes.

A. So I felt I would do what my normal practice is, to go for the best chance vein first, which would be a jugular, and in my experience a jugular -- and books have confirmed this or research has confirmed that the jugular access central venous line is the best line to try.

Unfortunately, as happened to Adam, I was unable to get -- that doesn't mean that the vein was ligated. I'm not alleging that the vein was ligated and that is why

I failed to gain access to the jugular vein --

THE CHAIRMAN: That's not the only reason why you might fail to gain access.

A. Yes, I just, for several reasons, might miss it. One of the reasons also might be he was dehydrated or there was not enough fluid in his circulation, which might have potentially, on speculation, contributed to my abnormal thought processes that he was in deficit. But I've explained that I no longer am consistent with that view.

MR McBRIEN: Sir, can I ascertain what happened in the operating theatre between 10.30 and noon? The family has examined at length the records, the statements, and we cannot work out what happened between 10.30 and noon.

THE CHAIRMAN: I don't think this issue was covered, so can you recall what happened?

A. From the anaesthetic or from the surgery?

MR McBRIEN: You were in the theatre; what did you observe; what did you see; what did you hear?

MR UBEROI: We've had a great deal of detail about what Dr Taylor saw and observed during the time he was in theatre.

THE CHAIRMAN: But I think this is a more specific question, Mr Uberoi, about what happened between -- if Dr Taylor can break it down into time periods, what happened between 10.30 and noon. I think that is a legitimate

question. If there is a specific query about a specific time, I think that's a legitimate question.

MR UBEROI: Well, the way I would say it's been covered in, entirely appropriate, but very fine detail so far, has elicited each stage where he can remember something germane and it has also elicited various stages where, because matters were 17 years ago and also because of, in the context of the other evidence he has given, he simply cannot remember or cannot help the inquiry any further with specific questions about specific points.

So I think, if I may say, that the topic and the question has been dealt with in more detail and in a more suitable fashion on many occasions during his evidence during the last two days, and to wrap it up into a one and a half hour period is, plainly, not helpful and is, plainly, aimed at going back into matters that have been dealt with repeatedly.

THE CHAIRMAN: If it does lead us back somewhere where we have been before, I will stop it.

Doctor, there is a concern on Mrs Slavin's part that she doesn't really understand from the evidence which is available to date what happened from about 10.30 until about midday.

A. When Adam didn't wake up.

THE CHAIRMAN: Yes.

A. I would need to go back to my theatre record and my deposition to see if I can assist.

THE CHAIRMAN: Can we have the theatre record reference, please?

MR UBEROI: The anaesthetic record is 058-003-005. This does rather illustrate the point, in my submission, that on all of these issues Dr Taylor has tried to assist. On occasion, he hasn't been able to remember. This is now an exact rehearsal of the situation we had when he was being cross-examined by inquiry counsel where, when he can't remember, he's asked to go back to his anaesthetic record, in order to be able to try and either reconstruct where possible or, more dangerously, speculate as to what was happening.

THE CHAIRMAN: I won't ask him to do either.

Could we bring up, please, 058 --

Does that help you, doctor, on the timescale Mr McBrien is asking you about?

A. Yes. So what information can I ...

MR McBRIEN: Well, you have indicated that you don't recollect many things. May I ask it this way: on the assumption that this had not happened to you often, in fact it's a very rare event, can I ask what you do recollect of what happened in theatre after anastomosis was complete.

A. Well, the operation continued. I don't know the time the anastomosis was complete. I think, if we look at the theatre record, it would have been when the prednisolone and the azathioprine were given, and that corresponds to about 10.15 or so on my theatre record. So that would correspond to when the clamps -- around that stage at which the clamps would have been released, so is that the time you -- when the kidney went in.

Q. In short then, you have a complete mental blackout as regards what happened in the theatre from 10.30 to noon? Without the benefit of the notes --

THE CHAIRMAN: I'm sorry, that's quite wrong to describe it as "a complete mental blackout".

MR McBRIEN: No recollection.

THE CHAIRMAN: He did give some evidence before, this afternoon, about what happened as he tried to lighten up the anaesthesia and bring Adam round and that's when the trouble occurred. That must be, I assume, some time after about 10.15/10.30 or after that, is it?

A. If you can look below the two antirejection drugs to NG, that's an abbreviation that I use for neostigmine and glycopyrrolate, and those are drugs that we use to reverse the effects of the neuromuscular blocking agent; in other words, the paralysing drug that's needed to allow the surgeon to gain access to the abdomen. And

those drugs are written down as given at the 11 o'clock end of the record. So that would be the time when I reversed the muscle blockade and allowed Adam to, if he was going to, start to wake up and breathe on his own. So that's an event that happened at 11.

I also wrote down the swab count and the fluid that was found in the suction bottle and an estimate of that was on the towels at 11. And then I would have been preparing Adam for -- as he didn't wake up, he was going to go back to PICU, on any event. Maybe I gave the impression earlier that it was not planned for him to go back to PICU, but it was always part of my plan. In fact that's why we waited for a PICU bed to be confirmed.

That would take a while to prepare Adam for -- even a short journey requires quite a lot of equipment to be readied and put on to trolleys, and drip stands, and to be made from a static position into a more mobile position for a journey of a few yards. It's not unlike a journey of several miles, it's the packing and unpacking.

So I think that's what would have happened between the stage perhaps where you talk about where the operation ended and where he entered intensive care unit. And then in the intensive care unit the other

doctors, I believe Dr Webb was called at that time, and Dr O'Connor and Dr Savage was called back from where he was. So there's quite a lot of things happened then to help us try to work out -- to diagnose Adam's status, if that's helpful. That's my memory.

MR McBRIEN: With your permission, sir, I have three final questions. The first one is a technical one. If you could get up on screen 058-003-005.

THE CHAIRMAN: That's it. It's on screen.

MR McBRIEN: Okay. I'm obliged.

The pain relief treatment that you were giving Adam -- do you pronounce it Fentanyl? It was given at 7 o'clock, 7.30, 8 o'clock, 8.30 and 9.30. Is that correct?

A. Sorry, where ...

Q. You'll be more familiar with that chart than I would.

A. He had an epidural in place.

Q. What was the painkiller you gave him at 7 o'clock?

A. There's no record of a painkiller given on this chart.

Q. If you'll give me a moment to take instructions.

THE CHAIRMAN: If he had an epidural, does that not remove the need for a painkiller?

A. Yes. He had atracurium, but that's not a painkiller, it's a muscle blocking drug. Maybe if I can be of assistance, that might be what you are referring to. So

that's --

MR McBRIEN: I'll leave that one, sir.

THE CHAIRMAN: You had two more, Mr McBrien.

MR McBRIEN: Yes. Can I take you to the blood loss record at 058-007-021. I appreciate you're an anaesthetist and that that's a nurse's record. Would you ever look at a nurse's record of blood loss? Are you familiar with that document?

A. Yes, the nurse would have this available for everybody in the operating room to see, so yes, I would be familiar.

Q. Have you looked at that document before today?

A. Yes.

Q. Okay. Then perhaps can you explain for the benefit of the family how that may be correlated to your evidence of blood loss and your calculations? Because there's quite a number of entries there and the first one -- may we take it that the first entry is made at 8 o'clock when the knife to skin was supposed to take place?

MR UBEROI: Well, I think that will presumably be a question for the person who made the entry.

THE CHAIRMAN: Do you know, doctor?

A. It would have happened when the first blood swab was reached out of the sterile area. When the surgeon cuts the skin, he would maybe not get much blood loss and as

he kept dissecting -- I'm into areas that I'm not perhaps the best trained to say, but the swab would only be weighed when it's given out from the surgical field, the sterile area to the non-sterile area, and that could be a matter of five minutes or even 30 minutes.

THE CHAIRMAN: So you can't decide --

A. The question is when the blood swabs were given to the nurse. Without a timeline, I can't say.

THE CHAIRMAN: I think there is a general point, doctor -- if you don't mind me asking, Mr McBrien. I think your point is: to what extent does this nurse's record of blood loss support or contradict Dr Taylor's position?

MR McBRIEN: Yes. Can the two be correlated in any way?

THE CHAIRMAN: Do you have a view on that? There's some difference between you and Mr Keane on the extent of blood loss. This is a nurse's record. Do you say it supports you or is contrary to you and more in favour of Mr Keane, or can you in fact discern anything from it?

A. Well, this is one of the records, so I would have -- can we go back? If you want to see the number on the extreme right-hand side ... 361, 411, that would have been transcribed into my anaesthetic record. Is the query that I haven't transcribed the blood loss properly from this record? I'm not sure what the question is.

THE CHAIRMAN: You and Mr Keane have different presentations

of how much blood loss there was.

A. Yes.

THE CHAIRMAN: You're being shown the nurse's blood loss record and asked: do you have a view of whether it supports your position or is closer to your position than it is to Mr Keane's, or does it contribute to that discussion at all?

A. Well, as I have indicated before when I was answering questions before, a while ago, I counted up -- put the swab count on my record and added that to the suction and added that to an estimate of that on the towels.

THE CHAIRMAN: So this is part of --

A. That's part [OVERSPEAKING] but not the only part.

THE CHAIRMAN: Yes, okay. Mr McBrien?

MR McBRIEN: I'm obliged, sir. Then finally: 16 years. You've been a tutor; you've written articles on hyponatraemia; you've anaesthetised successfully in other renal transplants. Given your knowledge and understanding of hyponatraemia now and knowing of the serum sodium level that had been assessed or measured at 139, then again at 123 at 9.32 on the morning, do you accept that Adam was probably dead at that time and that it was your actions and mistakes in the various matters that have been raised today that contributed to that?

MR UBEROI: If I may say, that's a very difficult question

for Dr Taylor to be expected to answer in light of the current state of the inquiry's own expert evidence.

THE CHAIRMAN: Well, I think it's fair to ask him, does he accept that he contributed to Adam's death, because no matter what the dispute is between the experts, bar Professor Kirkham, all of the other experts agree dilutional hyponatraemia was the primary cause of death. There are differences between them about additional causes, as there was when Dr Sumner gave his evidence at the inquest. He identified dilutional hyponatraemia but there are some elements of uncertainty about additional elements. But Professor Kirkham agrees that Adam had dilutional hyponatraemia. Her point, I think, is that that on its own would not have killed him. So I'm not sure that it's unfair to ask the doctor. I mean, I'm not -- this isn't a final view on it from the doctor, but it is his view. I'm not sure it's unreasonable to ask him does he accept that his actions and his mistakes, which he has admitted over the last day or two, at least contributed to Adam's death. What would be wrong with asking that?

MR UBEROI: My first point would be the point I've made repeatedly, which is that it is a point he's been asked about and answered, which is that he's been very frank as to the level of his errors and of the likelihood of

dilutional hyponatraemia. But taking it on from there, and saying, "Well, to what extent do those admissions mean that you accept that at a certain time in the chronology Adam Strain had died?" is, I think, not a proper question in light of the state of the expert evidence.

THE CHAIRMAN: Well, I'm not sure that I would necessarily put it in terms of at 9.32, but I think the doctor has himself volunteered in his evidence the proposition that Adam -- I think your evidence yesterday was that in effect he died on the operating table, even though he was not pronounced dead on the operating table. In effect, you said yesterday very clearly that he did die on the operating table in every meaningful sense.

A. I can't be certain as to the time of death. I don't think any of the experts are certain as to the time of his death.

THE CHAIRMAN: Yes, I agree.

A. Certainly there was a period of time associated with the sodium level falling that caused Adam to die. That's correct.

THE CHAIRMAN: I'm sorry, so I'm not --

MR UBEROI: It seems to me that you have a view, sir. That passage there clearly indicates the matter's been covered and I do have concerns about duplication. If

you have a view, then so be it.

THE CHAIRMAN: It's not quite covered because -- well, let me clarify. In effect, what you're being asked, doctor, is this: do you accept that the mistakes which you made contributed to Adam's death?

A. I think I've said that, yes, I fully accept the responsibility for my mistakes.

THE CHAIRMAN: Thank you.

MR McBRIEN: Just arising out of that, sir, to make sure it's absolutely certain, does he accept that Adam died of dilutional hyponatraemia?

MR UBEROI: That really is a question that is caught by the expert evidence and I would certainly submit it's not a fair question to be put at this stage.

THE CHAIRMAN: I think we can leave that, Mr McBrien. He accepted that Adam had dilutional hyponatraemia and that his actions contributed to Adam's death.

MR McBRIEN: That dilutional hyponatraemia was caused by cerebral oedema?

THE CHAIRMAN: Yes.

MR UBEROI: I must say this is highly risky in light of the inquiry's own evidence. We have four weeks of evidence to come and no doubt Mr McBrien will want to make submissions to you after he's heard that evidence. But to be putting this proposition now in light of the

question and answer which was supposed to be the final question and answer a minute or two ago is, in my submission, not helpful.

MR McBRIEN: Before the witness leaves the box, sir, it'd be helpful, since he has written articles on hyponatraemia and because of the blurring of some answers yesterday, if the family can go away today knowing his final position.

THE CHAIRMAN: Well, whether it's consistent with the views of experts or not, what is your position about the extent to which dilutional hyponatraemia contributed to Adam's death?

A. I think at the moment there is an uncertainty as to the actual cause of Adam's death. I would reserve judgment until the inquiry has ruled on that. It's still being tested as far as I know.

THE CHAIRMAN: Let me put it this way: Professor Savage was asked yesterday about Professor Kirkham's report.

A. Yes.

THE CHAIRMAN: And he was -- how shall I say -- I think taken aback by some of the extent of Professor Kirkham's report and understood that that was very distressing to Adam's mother in particular.

A. Yes.

THE CHAIRMAN: She is the only expert who does not suggest

that the primary cause of Adam's death was dilutional hyponatraemia.

A. Yes.

THE CHAIRMAN: When you saw the other expert reports, because hers was not circulated I think until March, when you saw the other expert reports, which all conclude -- they're not identical, but they all have a common theme, this is Gross, Coulthard, Haynes and so on -- that dilutional hyponatraemia was the central cause of death with some disagreement around other bits and pieces. Did you think they were right?

A. My difficulty is that I'm not a neurologist and making a decision about the scientific cause of death is beyond my area of expertise. So I can't --

THE CHAIRMAN: But did you not say yesterday that you now accept the inquest verdict?

A. Yes, I accept that I made a mistake with the fluids. I accept that Adam got dilutional hyponatraemia and he died of cerebral oedema.

THE CHAIRMAN: Okay. I will take it no further, Mr McBrien. Are there any other counsel before I ask Mr Uberoi?

MR FORTUNE: No, thank you, sir.

THE CHAIRMAN: Mr Uberoi?

Questions from MR UBEROI

MR UBEROI: Thank you, sir. Just one matter, please.

I think it arises out of the final paragraph of your February witness statement of this year, which I think I'm right in saying is now paginated as 008/6, page 4. It's simply this, the final paragraph in your written statement there:

"I deeply regret the tragic death of Adam and am very sorry for his family. I was responsible for the calculations and the administration of all the fluids that Adam was given during his renal transplant and, as such, must accept responsibility for these being incorrect."

That is what is written. I know you wanted the opportunity to be given the chance to comment on that at the conclusion of your oral evidence and so I'm giving you that opportunity now.

A. Throughout this evidence, I've reread a few times in my anaesthetic record that Adam came into the operating theatre crying, and I think that has left me -- that's my abiding memory of Adam. I want to say that in my view, Adam was a very brave little boy. He came to theatre that morning crying and upset, but that was after a night of multiple needle attempts, and I asked him, as is my usual practice, "How would you like to go to sleep?" And he said, "No mask". So he actually volunteered to have a needle, despite what he'd been

through.

So despite what we've read and we've said, Adam was a very brave little boy. He trusted me and I let him down. And for that, I'm very sorry.

THE CHAIRMAN: Thank you very much, doctor.

Ms Anyadike-Danes, did you have one more point?

MS ANYADIKE-DANES: Just one, and the only reason I raise it, Mr Chairman, is it's something that I think you want raised with all those who were involved with it. That's the reason I do so, otherwise I wouldn't be asking any further questions at this stage, particularly in the light of the final comment of Dr Taylor. In fairness, this is the same question that I asked Professor Savage and there will be others who I will ask it to also.

I wonder if we could pull up 060-010-018, please. Now, Dr Taylor, that is a memo that was written to you by Dr Murnaghan on 9 May 1997. Have you seen that document before?

A. Yes.

Q. I'm just going to take you to the second paragraph and ask for your views on one particular point. This is what it says:

"From a liability position, the case could not be defended particularly in the light of the information provided by one of the independent experts retained by

HM Coroner at the inquest. Additionally, it would have been unwise for the trust to engage in litigation in a public forum and given the tragic circumstances of the death. It would not have been helpful for an opportunity to be provided to lawyers to explore any differences of opinion which might exist between various professional witnesses who would have been called to give evidence."

That memo in precisely those terms has been sent to a number of the clinicians involved in Adam's case. Professor Savage was one, you're another and I will put it to the others who were also involved.

But in relation to yourself, when you received that, what did you understand Dr Murnaghan, who's director of risk and litigation management -- what did you understand him to be referring to when he said that it would be unhelpful for an opportunity to be provided to lawyers to explore any differences of opinion which might exist between various professional witnesses who would have been called to give evidence? What did you understand by that?

A. I don't understand what that means.

Q. Oh. You received that memo in May 1997 and you had no idea what Dr Murnaghan was referring to?

A. I did understand that a settlement had been made.

I wasn't part of that, but --

Q. I'm not asking you about the settlement, I'm asking you about the reference that you didn't want to give -- not you personally, but it was very helpful not to have given an opportunity for lawyers to explore any differences of opinion which might exist between various professional witnesses.

A. That's the bit I don't understand. I don't understand what that means.

THE CHAIRMAN: Were you aware of any differences of opinion between yourself and other people such as Professor Savage and Mr Keane?

A. I'm not sure.

MS ANYADIKE-DANES: Let me help you in this way, Dr Taylor. Adam's case in large part proved to be all to do with fluid administration. There were issues to do with the way the surgery was carried out, but in large part what people were focusing on was the fluid administration. Now, were there any differences between the clinicians at the Children's Hospital and the Belfast City Hospital, those who were involved in Adam's case, in relation to fluid management of Adam?

A. I don't know.

Q. One last question then. If you don't know what Dr Murnaghan was talking about, did you contact him and

ask him that, "What do you mean"?

A. I can't remember if I spoke to Dr Murnaghan after this letter.

MS ANYADIKE-DANES: Thank you very much. Perhaps we'll deal with that in governance.

THE CHAIRMAN: Yes.

Dr Taylor, that brings an end to your evidence at this stage of the inquiry. As I said early on this afternoon, if any significant new issues develop over the next few weeks which make it necessary to ask you to return, or Professor Savage and Mr Keane, you will be contacted for that purpose. But before you leave today, I think you've said in answer to a question from Mr Uberoi something which you wanted to say. Is there anything else you want to say before you leave the witness box?

A. That's what I wanted to say.

THE CHAIRMAN: Thank you, Dr Taylor.

Ladies and gentlemen, we'll resume at 10 o'clock on Monday morning with the evidence of Mr Keane.

Thank you.

(4.55 pm)

(The hearing adjourned until Monday 23 April at 10.00 am)

I N D E X