Friday, 14 June 2013

(9.30 am)

(Delay in proceedings)

(9.45 am)

THE CHAIRMAN: Good morning.

Mr Quinn, before I start, I think you weren't here and I know Mr and Mrs Roberts were here last Friday afternoon, but I think and you and Mr McCrea and Mr Ferguson weren't. There is a letter which I'd received the day before from your solicitors, indicating that, from the Roberts' perspective, they did not want Professor Kirkham to be engaged in Claire's case. Can I take it that's the position?

MR QUINN: Yes.

THE CHAIRMAN: And you saw the transcript of last Friday afternoon?

MR QUINN: Yes, I did.

THE CHAIRMAN: Is there anything that you need to add to it?

MR QUINN: No. I directed the letter on instructions from Mr and Mrs Roberts, that is their stance, and they hold to that position. I have confirmed that this morning.

THE CHAIRMAN: Thank you very much indeed. Then let me set out the position.

RULING

On Friday last, 7 June, I heard submissions on

issues concerning paediatric neurology evidence. I am grateful to the various representatives for their contributions. The first issue is whether I should read and distribute additional information which has been received from Professor Rating. That information, by way of an additional submission, came from him after had he and Professor Kirkham had given oral evidence together on 14 January.

That day's evidence had started with me stating that I would no longer accept stated volunteered to the inquiry without the inquiry having asked for them and approved them in advance. That must apply to inquiry experts as much as it does to others. But more importantly, Professor Rating had already enjoyed three opportunities to express his views. The first was in his original report, the second was in his response to Professor Kirkham after he saw what she had written, and the third was in the witness box on 14 January.

I believe that I have to draw a line and I will draw the line by not reading or distributing Professor Rating's further submission. It follows from that that I will not ask for Professor Kirkham to read or respond to it, nor will I recall them to deal with those issues.

The more substantial issue to deal with arises from

Professor Kirkham's involvement in Raychel's case. She was engaged for a limited purpose and she has fulfilled that role, but she has raised further issues about what may have caused Raychel's death. And to a degree, the issues that she refers to tie in with the evidence which she gave on 14 January and prior to that in writing and at the two very long meetings in Newcastle-upon-Tyne.

As I understand it, that position is that there is no evidence that low sodium would lead to enough oedema to cause to intracranial pressure and herniation. She believes that in these cases there must be an additional problem. In Adam's case she expressed a view on what the additional problem might be, though she appears to have done so not because there was evidence of that problem, but in spite of the absence of evidence that problem could not be ruled out. I did not find that analysis compelling. I am also concerned that it may be contradicted because in the report which she provided in Raychel's case, she has said at 221-004-003:

"Although it is possible that Raychel's severe cerebral oedema, demonstrated on CT and at autopsy, was secondary to dilutional hyponatraemia from the use of large volumes of Solution No. 18, this diagnosis is currently more controversial than it was at the time of the inquest."

So in that written contribution, she has accepted the possibility of something which I understood her not to be accepting when she gave her evidence on 14 January.

Moreover, the views expressed by Professor Kirkham have not found support from Professor Rating. They were not supported by Professor Neville, who gave evidence as an expert paediatric neurologist in Claire's case. Furthermore, her views do not chime with the views of other experts from different specialties who have expressed reservations about what she has said. I will not develop any fuller or more detailed analysis of this stand-off at this stage; that will come in my final report. But in light of the view which I have formed at this stage, I do not intend to engage Professor Kirkham to report any further in Raychel's case.

That is not quite the end of the matter. I do note that from the passage that I have just read out that she says that this area is now more controversial than it was before. I would also note that each child whose death we are investigating died in different circumstances, so Adam's death is different from Claire's, which is different from Lucy's, which is different from Raychel's. I will have to bear that in mind when considering why the children died, what

lessons might have been learnt at the time and what criticisms can be made fairly.

For instance, the suggestions made by Professor Kirkham may be relied on in the aftermath of Lucy's death by those doctors who give evidence to say that they believed or assumed that the sodium reading of 127 would not explain Lucy's demise. I have to add, however, that in turn this raises other issues such as whether that was in fact the lowest reading, what the relevance is of the rate of the fall in the sodium level from 137 to 127, and questions surrounding the effect of whatever volume of normal saline was actually given in a limited time to correct any earlier errors. I will also be considering in this context the evidence of a series of doctors and Sister Traynor, who say that the fluid regime was identified as a possible, if not probable, cause of Lucy's problems even before she died on 14 April.

In short, I do not intend to continue the debate provoked by Professor Kirkham within the forum of this inquiry. It may well continue in medical journals and elsewhere, but I am not persuaded that I should pursue that line further here, having already devoted very much time and resources to it.

There is one further point I need to deal with,

which is this: Professor Kirkham was originally engaged in Raychel's case to advise about the time at which Raychel suffered irreversible brain damage. She has put that time at between 4 and 4.45 am. I would regard that as potentially significant if there was any live criticism of what the doctors had been doing after about 3 am. In his written report to the inquiry, Dr Simon Haynes was somewhat critical about events even after 3 o'clock, but when he came to give evidence on 22 March, he said at page 144 of the transcript:

"Generally, I am very hesitant to offer any criticism of events from 3 o'clock onwards."

Meaning of course 3 am.

I can indicate that I share his view having heard his evidence and the evidence of others such as Dr Johnson and Dr McCord. I share Dr Haynes' view that the essential mistakes in Raychel's case, partly arising from failings in the organisation of paediatric care in Altnagelvin, had been made earlier in the day. That being the case, I do not believe it is necessary to ask Professor Kirkham to give evidence about her estimate of the time at which Raychel's brain damage was irreversible.

It follows from all of this that I will not be asking for Professor Kirkham to advise on any issues

relating to either Claire or Lucy, nor will I be asking for any further contribution from Professor Rating. I am grateful to both of them for what they have added to the inquiry, but I will move the evidence on without them. For completeness, this means that I do not intend to ask for any other paediatric neurologist to provide a report.

So that is the position going forward. I am going to break for a few moments and we will resume the evidence of Mr Fee in a few minutes through Mr Wolfe. Thank you.

(9.55 am)

(A short break)

(10.10 am)

MR COUNSELL: Just before the witness resumes his evidence, can I just mention the two documents the inquiry has been handed this morning, just so that everybody is aware of their provenance and give an explanation of why they're being provided now, at least in respect of why one of them is so late?

The first is a four-page handwritten note, which has now been given the number 324-102-002. The second, third and fourth pages are in Dr Quinn's handwriting, the first page being in the handwriting of his secretary. I should just explain why it is that they

have been produced today. We will hear in due course from Dr Quinn later today if he's asked that he was getting ready for today's hearing, going through his papers to check that he had everything, and he found these documents for the first time and he immediately telephoned my instructing solicitors, who, not surprisingly, asked him to scan them to her last night, and that's why they were produced at the first opportunity today. He will, of course, explain them and I have explained to Mr Wolfe what we think they represent so that, if he feels it's appropriate, he can deploy them in his questions to Mr Fee.

The other document, sir, 034-042-103a to e, the first two pages are a transcript of the handwritten notes that Mr Fee read out to us. I hope it's accurate and I think Mr Wolfe is going to confirm with Mr Fee that it is accurate, subject to one query which I had about it. The last three pages, I'm slightly embarrassed about this, as I wasn't intending that they should be copied for the inquiry -- they were intended to be helpful to Mr Wolfe -- but they have been. I'm not sure how authoritative they are.

THE CHAIRMAN: So we're not going to use Professor Kirkham, we'll just turn to Wikipedia from now on, is that it? We could have saved a lot of money, Mr Counsell, doing

this!
MR COUNSELL: There they are. They're there. It may be that the diagrams are helpful, but I don't seek to rely upon them myself for their reliability given their source.
THE CHAIRMAN: Thank you very much.

MR EUGENE FEE (continued)

Questions from MR WOLFE (continued)

MR WOLFE: I think the first thing to do, perhaps, given that my learned friend has produced this transcript of Mr Fee's note is to put that in front of him to ask him to confirm that he thinks it is accurate.
THE CHAIRMAN: Has Mr Fee seen this?
MR WOLFE: I'm not sure it's in front of him. Is it?
THE CHAIRMAN: He might need a moment or two. Because what we're going to ask you to do, Mr Fee, is too -- I'm sorry if this seems a bit pedantic to you, but we're going to ask you to look at a two-page typed note of the handwritten note that you were looking at yesterday from the old jotter.
MR WOLFE: I see it's paginated now. It starts at 034-042-103a and 103b.
THE CHAIRMAN: Does Mr Fee have the jotter notebook that he was reading from yesterday?

Mr Fee, just take a minute, if you would, and

confirm that the typed sheets that are on the screen, and you have a hard copy of to your left, tie in exactly with what's written on those notes. Just take your time for a moment or two. (Pause).
A. Chairman, that appears accurate, with the exception of a couple of question marks at the third and fourth line of the second page that appear after the two statements; they don't seem to appear on this. But it doesn't make any relevant difference.
THE CHAIRMAN: "Query was resuscitation accurate?"
A. There is a question mark in front of the words, no question mark after it.
THE CHAIRMAN: And the same for the next line?
A. That's correct.
THE CHAIRMAN: But apart from that you're content?
A. Apart from that, yes.
MR WOLFE: Thank you for doing that. I'm sure it wasn't the most comfortable thing to do in the witness box, and thank you to Mr Counsell for his endeavour in that respect.

Could I bring up in front of you, Mr Fee, a document that has come in this morning from Dr Quinn, and could we look at pages 324-012-003? Look at that first page. This is the first of a series of three pages of notes, which Dr Quinn, doing his best, I think, would say were

formed or written by him during or arising out of his very first conversation with you. I'm looking to Mr Counsell for -- not quite?
MR COUNSELL: Again, this is not much more than speculation on the part of Dr Quinn, but Dr Quinn will say, I anticipate, that the first one, the one on the screen, may be a note of the telephone conversation with Mr Mills.
MR WOLFE: Sorry.
MR COUNSELL: It's the third and fourth pages, 004 and 005, which may be a conversation with Mr Fee.
MR WOLFE: I'm obliged.
THE CHAIRMAN: Sorry, have I got this right, that this is a conversation that Dr Quinn says in his statement he didn't recall?
MR COUNSELL: That's right.
THE CHAIRMAN: So these are possibly notes of a conversation he doesn't recall?
MR COUNSELL: That may well be the case. He accepts that there was a conversation. He must have had a conversation because, as you will recall, the briefing letter refers to it, but he doesn't recall it. Because there wouldn't be any other purpose for making these notes because they're certainly not notes made at the time he looked at the medical notes. It may be that

that's what they are.
MR WOLFE: Just to be clear, this is the first conversation, Mr Counsell, which occurred in or about 20 or 21 April, so far as we can gather?

I'm not sure, Mr Fee, if you can say anything that might assist us. That first conversation that you had with Dr Quinn, it was followed by a letter written by you on 21 April, and we looked at that yesterday, which was the briefing letter to Dr Quinn, and at that time you sent him Lucy's case notes; okay?
A. That's correct, yes.
Q. So the context for this note, Dr Quinn doing his best, is the conversation with you. Do you remember whether the conversation was the day you wrote the letter or the day before?
A. I think there's a sequence of sort of events somewhere in the documents that suggest that it was the 20th, from my memory of the sequence of events.
Q. And the letter went out the next day?
A. That's my understanding, yes.
Q. If we could have up on the screen 324-012-004. That's the first of two pages of notes which Dr Quinn, speculating perhaps a little, says belong to the conversation with you -- let's call it the conversation of 20 April. I suppose the impression from the note,

Mr Fee, is that you're providing the doctor with a reasonable degree of detail around Lucy's case; is that your recollection?
A. I don't recall, but that may be the case.
Q. By this stage, you were familiar with some of the main points because you were familiar with the notes.
A. Yes. Dr Anderson and myself would have reviewed the notes in advance of that, indeed in advance of asking Mr Mills to try and source a paediatric opinion.
Q. Yes.
THE CHAIRMAN: I wonder -- maybe you and Mr Counsell have discussed this, Mr Wolfe. I understand Dr Quinn felt obliged, when he tracked this note, to provide it to the inquiry.
MR WOLFE: Yes.
THE CHAIRMAN: Is there any particular point that needs to be developed out of it?
MR WOLFE: I'm not sure.
THE CHAIRMAN: In effect, is it given to us for the sake of completeness?
MR COUNSELL: Absolutely.
THE CHAIRMAN: We don't need to question Mr Fee about what's in the note or what isn't.
MR COUNSELL: I don't have anything that I want to be drawn to Mr Fee's attention.

THE CHAIRMAN: Unless, Mr Wolfe, you have spotted something.
MR WOLFE: Could I maybe just deal with one point, which I missed out on yesterday, arising out of that discussion and to have your views on it? Dr Quinn would say, and has said in his statement, that upon receiving the notes from you, he had still not made up his mind whether he was going to be assisting the Trust. He has said that upon receiving the notes, he examined them and then telephoned Mr Mills to say only at that point that he was prepared to assist. Can you help us with that? When you were speaking to him on 20 April, was there still some uncertainty as to whether he was up for the job, up for the task of analysing the notes for the trust?
A. I don't recall that, no. I don't recall, you know, that he wasn't prepared to do it. I have no knowledge, from memory, of the reported telephone call, the second telephone call of Mr Mills.
Q. Well, arising out of the telephone call that you had with Dr Quinn, you sent him the notes?
A. That's correct.
Q. And you sent him a brief containing the three questions or the three issues that we looked at.
A. That's correct.
Q. Thinking back on that now, did you expect him to have to

make a decision upon receiving the letter as to whether he was going to assist or had that decision already been made during the telephone call?
A. I don't recall myself expecting to have made a decision, but perhaps my recall's not accurate on that fact.
Q. Could I take you then to the meeting that you and Dr Kelly attended on 21 June with Dr Quinn? That meeting, just to orientate you, took place in Altnagelvin?
A. That's correct.
Q. And you and Dr Kelly travelled together to the meeting.
A. That's my memory, yes.
Q. Can you help us, why did Dr Anderson not attend?
A. My recollection was that Dr Anderson was on annual leave at the time.
Q. And why was Dr Kelly in attendance? He wasn't part of the review, isn't that right?
A. He wasn't part of the review, but he was the individual who'd asked us to do the review and I would also have been in discussion with him during the review.
Q. What did you see as the purpose or the objective of that meeting?
A. My belief is that we went to basically explore in more detail the verbal feedback that I'd received and also to get a written report from Dr Quinn.

Q. Because at that stage you hadn't obtained a written report?
A. That's correct.
Q. Was it a surprise to you that you hadn't, at that stage, obtained a written report?
A. I can't recall thinking that it was a surprise at that stage, no.
Q. Well, had you expected a written report?
A. At that stage?
Q. At any stage.
A. Yes, I would have, yes.
Q. And why was that? Had it been made clear to Dr Quinn that a written report was part of the requirements?
A. I just can't remember the detail of the letter that was sent to Dr Quinn, but it may not have been explicit in the letter.
Q. It may be that you can't comment, but help us if you can: his position appears to be that he had made it clear to Mr Mills that the job that he would be doing would be to consider the notes and to provide, if you like, a verbal report.
A. Right.
Q. Had you any knowledge of that?
A. Well, I have no recollection of that, no.
Q. The upshot of the meeting, as we understand it, is that

Dr Kelly asked Dr Quinn to produce a written report; do you remember that?
A. I don't remember it, but I'm sure that is accurate.
Q. There was a phrase used by Dr Quinn when he was doorstepped by a documentary team back in 2004/2005, and he told that documentary team that he was "sweet-talked", and the explanation for that phrase, he says, is that having started out in his work for the Trust to produce an oral report to you and Dr Anderson, he was sweet-talked, in the sense of persuaded, to provide a written report. Is that your view of what happened at the meeting?
A. I must say I was surprised when I seen that comment on the documentary, but I took it in the context that the man was doorstepped.
Q. Did he have some conversation with you after that documentary?
A. I don't recall him having one, no.
Q. I think you told the police, Mr Fee, that he phoned you in something of a panic the following Monday after the programme went out, or after he was doorstepped. I'm not sure from the context which it was.
A. I told the police that?
Q. Yes.
A. I can't recall that.

Q. Let me just check this. If we could have up on the screen 116-032-002. About halfway down the page:
"Mr Fee: Well, I don't understand the comment, to be honest."
Do you see that?
A. I do have some recollection, but I can't just recall where this came from. I do have some recollection of Dr Quinn asking had we actually paid him for the report, whatever the significance of that was.
Q. Just let me get this straight. You went to Dr Quinn's office in Altnagelvin on 21 June 2000. He produced the written report for you. Was that the last you had heard of him or heard from him until this conversation arising out of the door stepping?
A. I don't recall having any other conversations with Dr Quinn.
Q. Right. So can you help us at all then? Just take your time to think about it. You're telling the police, six or seven years ago now, that this conversation happened. It must have seemed quite unusual to you at the time.
A. To be honest, now I can't recall that conversation at all. That interview, I think, was in 2004 or 2005, I think it was.
THE CHAIRMAN: 2004.
MR WOLFE: It's the last time you spoke to Dr Quinn?

A. I have no recollection of speaking to Dr Quinn since that, no.
Q. Have you a recollection of speaking to him then on 21 June 2000?
A. I do remember -- well, there's a record that I actually phoned him on that day, but the detail of the conversation I don't recall, no.
Q. Let me ask you this: was there any improper pressure applied on Dr Quinn to produce a written report?
A. I don't recall any improper pressure.
THE CHAIRMAN: Forget the word "improper". Was there any pressure put on Dr Quinn to provide a written report?
A. I don't recall pressure being put on him. We would have been clear that we wanted a report.
THE CHAIRMAN: Thank you.
MR WOLFE: In terms of the meeting that took place, you tell us you were anxious to go there and get clarity and further information because you'd spoken to him earlier in May and, by this stage, you still hadn't had a written report. So what were the issues you were seeking clarity upon?
A. I think, to put it a different way, I think it was on a personal basis -- I can only speak for myself -- I'd have been seeking to get a greater understanding of the issues that he was saying to me.

Q. Yes. And in particular, what clarification or understanding did you require?
A. He gave on this, my written note -- he made a number of points which addressed the points, I suppose the issues that we'd included in the brief, and certainly my thinking would have been to get a better understanding of his position in relation to his findings.
Q. Yes. Can I start with Dr Quinn's perspective? He has given an account to the PSNI which says that you came to his office to discuss his review of the notes and records; that's fair, isn't it?
A. That would be correct, yes.
Q. You had a full discussion at this meeting of the notes and records?
A. I think that's fair as well, yes.
Q. Dr Kelly seems to recall the meeting lasting about an hour or so; is that your recollection?
A. I think it was perhaps even longer than that.
Q. Right. And Dr Kelly, it appears, made a note of the meeting.
A. That's correct.
Q. Can you recall whether Dr Quinn had notes with him?
A. I think he may have had, yes.
Q. Could I have up on the screen, please -- side by side, if we can -- Dr Kelly's note at 036c-004-007 and,

alongside that, could we have Dr Quinn's typed note, for which there's a handwritten original, at WS279/2, page 10?

MR COUNSELL: Can I just ask Mr Wolfe to make clear to the witness, who won't be familiar with this document to the right, I suspect, that this is not a record of the meeting, but a note made before the meeting?

MR WOLFE: Mr Fee, the left-hand side is the note that was produced after the meeting by Dr Kelly, based on notes he took at the meeting. There's a second page, which we can turn to in a moment perhaps. On the right-hand side of the screen is a note prepared by Dr Quinn in advance of the meeting. He had it in handwritten form and he's kindly reproduced it in typed form for the inquiry.

Could I ask you this just as a matter of process: Dr Quinn has told the inquiry why he was ultimately persuaded to produce a written report for the trust. He was clear to you and Dr Kelly that the report was to be a summary of his discussions with you and that it had to be read by yourselves, that is the Trust, in conjunction with what he told you at the meeting; do you follow?

A. I follow what you're saying, yes.

Q. So there may well have been things discussed at the

meeting, he would seem to suggest, that aren't necessarily covered in his report. Is that fair or was that your understanding of what the report amounted to?

A. My understanding was the report was his conclusions of his review. I have looked at a number of these papers since, particularly in preparation for the last day or two, and certainly the notes that you're displaying of Dr Kelly covers the same issues that seem to be covered in Dr Quinn's report.

Q. Dr Quinn has said that he advised you and Dr Kelly that, based on the limited information that was available to him, he couldn't be sure about the cause of the cerebral oedema. Is that your recollection of what was said at the meeting?

A. I don't recall that specifically being said, and I don't have his report in front of me at the moment, but I think that may be reflected in his report as far as I can recall.

Q. The note says, just looking at the left-hand side, about two-thirds of the way down:

"Dr Quinn notes that there were further fluids ..."

Do you see that paragraph?

A. Yes.

Q. He says:

"Events remain unclear."

A. Yes.

Q. But what he appears keen to emphasise in the evidence that he has given and in the statements he has given to the police is that when he talked to you at the meeting he was particularly clear about the need to ascertain from staff involved in the care of the child the exact fluids, so the exact volumes of fluids given to the child from admission to the time of the fit and thereafter during the period of resuscitation.

Could I ask you about that: can you recall whether there was discussion about the uncertainty surrounding the fluids that this child had received?

A. I recall from the note that I made of the telephone call that there was a question mark around the -- I think it was around the normal saline. There seemed to be a question mark around the amount of normal saline which, it would appear from the records that are available, that I had tried to clarify. Dr Kelly's note seems to say that we were advising that our understanding was that there was 250 ml of normal saline administered. Now, I can't recall whether there was a discussion around was that 250 or 280 or, you know ... I suspect there may have been a discussion, I can't recall it, but I don't remember exactly what a normal saline bag looks like, but my memory is that there's

measures on it. If you're looking at, say, a half-full bag -- and I can't remember whether there was one at 250 or not -- there would also be fluid in the chamber and the drip. So if it was appearing at 250, there may well be another 20 ml in the drip or so that wouldn't have run in at that stage.

Q. Yes, that deals with the post-seizure fluids. I'll come back with some questions on that. Can I start with the pre-seizure fluids? Dr Quinn has said that he specifically asked at this meeting if more of the Solution No. 18 could have been given or could possibly have been given over the period of time than was actually noted in the chart.

The chart was not, if you like, happily completed. There was some uncertainty there, but adding the 100s up you would get to 400. He says he was asking at this meeting, "Can you clarify for me whether this child could possibly have had even more Solution No. 18 than has been accounted for in that record?"; do you remember that being discussed?

A. I don't.

THE CHAIRMAN: Can I get clarification on that? If there is ambiguity in the record about exactly how much was given, when Dr Quinn was asking, "Could there have been even more given?", even more than what? Even more than

200 or 300 or 400?

I think, Mr Counsell, it's really a query for you. If Dr Quinn is saying that he was asking at this meeting, "Could more have been given than a certain figure?", what is the figure? Because it makes a difference. If he's saying, "Could even more have been given than 400?", that's one question. But if he's saying in terms, "I'm looking at the fluid balance chart and it's not very clear how much was given", as Sister Traynor, among others, has said, it could be interpreted to mean 400, but that's not clear. If Dr Quinn is saying, "Could even more have been given than a certain figure?", what is the figure?

MR COUNSELL: I think the figure is either 400 or 500. 400, I think.

MR WOLFE: I think it's fairly clear that he ran his calculations off 400.

THE CHAIRMAN: Thank you.

MR WOLFE: So what you're saying is you have no recollection at all of there being uncertainty around the amount of Solution No. 18 that was given?

A. I don't recall that being raised, but it may well have been; I just can't recall it.

Q. Very well. The issue then of the post-seizure fluids. You're quite right to refer to the note, which indicates

that Dr Quinn is noting that there were further fluids administered after the resuscitation and then there's a dash and it says, "250 ml of normal saline"; do you see that?

A. That's in Dr Kelly's note?

Q. Yes.

A. Yes.

Q. According to the note, Dr Quinn notes that there were further fluids, if you follow. So that would seem to suggest it was something being said by Dr Quinn at the meeting, perhaps after that information was given to him by yourself. Do you have any recollection of that?

A. Well, certainly the note of the telephone call seems to have stimulated me to make further enquiries in respect of the saline. On the transcript, there's a note that says that the nursing staff said -- and I don't have any particular recollection of which member of nursing staff or nurses said that -- that there was 250 ml run in and then was reduced to 30 ml per hour over the next two hours.

Q. And that formed a footnote in the record of your discussion for 2 May. It next makes an appearance in this note for 21 June.

A. That's correct.

Q. What is your recollection of whether that information

was conveyed to Dr Quinn at that meeting?

A. I don't specifically recall it being conveyed, but Dr Kelly's note indicates that it was.

Q. Very well. Can I offer you Dr Quinn's perspective? He says in his witness statement at WS279/1, page 13, that he has no recollection of concluding that 250 ml of normal saline was administered, and indeed, Mr Fee, when we come on to look at his report that was furnished to you the next day, he states quite clearly that he remains uncertain about the amount of normal saline that was run in. Can you help us with that? At this meeting, it would appear that 250 ml was mentioned, but did there remain uncertainty in everybody's mind about exactly how much she got?

A. There may have been. As I was trying to explain earlier, looking at a bag of fluid, you could be 10 or 20 ml out.

Q. Yes. But what about being 250 ml out? Because the tension here seems to be between what some members of nursing staff may have told you as we saw from your footnote in the earlier record, and what is contained in the medical records where Dr Malik is associated with the comment that 500 ml was run in over 60 minutes.

A. Yes. I recall you showing me that note in the medical records yesterday. My reading of that note was that, at

3.15/3.20, Dr Malik had prescribed or ordered 500 ml to be run in in one hour, and I think there's two "ins" in the sentence from memory. Maybe I'm wrong, but it appeared to me -- first of all, the child was reported to have collapsed at shortly before 3. I think there's a record somewhere that shows that Dr Malik stated he was bleeped at 2.58. So I'm assuming it took him a few minutes to get from the doctor's residence to the ward, so it was at least 3 o'clock when he arrived there.

Q. Yes.

A. So I'd have thought it was highly unlikely that 500 ml would have been run in by 3.15 or 3.20. I read that as a prescription or an order. But perhaps you could bring the --

Q. Well, the note appears at 027-010-024. What the note -- correct me if I'm wrong -- and what it says is:

"Passed the large, foul-smelling stool. Normal saline 0.9 per cent. 500 ml given over 60 minutes."

A. Yes. I read that.

Q. So it's certainly a retrospective note in that it's using the past tense "given".

A. Right. I hadn't read it like that. I hadn't interpreted it like that.

Q. Well, I think there's a danger in conducting

a retrospective analysis of the note, Mr Fee. The point is -- and it's a point I think I made to you yesterday -- you appear to have missed this note or at least not sought clarification from Dr Malik about what it meant; is that fair?

A. I accept that, yes.

Q. Instead, you opted, I think was the word, to go with the version of events which some unnamed nurse apparently gave you. Whereas what, just to bring it back to the point which Dr Quinn says he was asking for, he says, at this meeting: clarification of both the pre-seizure and post-seizure fluids. And as regards the post-seizure fluids, he was saying his thinking was if all 500 ml of normal saline had been given over a short period, it could have contributed to the cerebral oedema. What I want to ask you is this: when we see his final written report, the absence of clarification on the normal saline issue stands out. He remains uncertain about this. And yet, his thinking is -- and what he appears to be telling you is -- that the cerebral oedema could well have been exacerbated if this massive amount of saline had been run in. Did you leave the meeting on 21 June thinking, "I had better get clarification once and for all of all of this fluid"?

A. I don't recall thinking that, leaving the meeting, no.

Q. Well, is that because the issue wasn't discussed in that way, or is it because you were sufficiently reassured about the fluids that had been given?

A. I can't recall what my thoughts were at the time.

Q. Can you recall that there was a discussion about the possible reasons for the changes in this child's electrolytes?

A. I don't specifically recall that, but I seen in Dr Kelly's notes that I had asked a question, I think, about the possible implications of the diarrhoea.

Q. Well, it was one of the issues which you had set out in your terms of reference for the doctor, isn't it: could he explain the changes in electrolytes?

A. Yes.

Q. And clearly, you would have appreciated that within a very short period of time this child's serum sodium and serum potassium had decreased to abnormal levels; isn't that right?

A. Well, I seen the two blood results and, on the results form, there's a normal range, I think it is.

Q. That's right.

A. And my recollection is it was outside of that on the second occasion.

Q. Can I put to you a perspective offered by Dr Quinn? He says that his conclusions in relation to what was the

cause of the electrolyte imbalance were that the following could have contributed: the use of the normal saline in what he calls the stated volumes, in other words the 400 ml; fluids and electrolyte lost from vomiting and diarrhoea; and the possible inappropriate antidiuretic hormone, the so-called SIADH. Taking those points in turn, can you recall first of all --

A. Sorry, can you remind me what the first point was?

Q. He says that, at the meeting, there was a discussion of the electrolyte issue.

A. Right.

Q. And he can recall that in terms of what he was describing as possible contributors to this electrolyte problem, the first thing that was mentioned was the Solution No. 18 in the volumes that were stated. Secondly, the vomiting and diarrhoea and, thirdly, SIADH, this hormone issue, water retention diluting the system. Can you help us at all: were those matters discussed in that way?

A. I don't specifically recall them, but they may well have been.

THE CHAIRMAN: I think as this goes on, it emerges there's limited value in asking Mr Fee about this meeting because I don't think he recalls any detail about the meeting beyond what other people have noted; is that

fair?

A. My recollection is quite poor, yes.

THE CHAIRMAN: So when you are helping us as best you can, you're going on what Dr Kelly's notes say and some reference to the notes and records from the hospital and some reference to what Dr Quinn has said? But it's not really --

A. It's not a recollection, no.

MR WOLFE: Let me take it away from the finer detail and see if you can help us with broad impressions. What was your broad impression of the way that the hospital had managed the care of this child, as you left that meeting?

A. Sorry, I'm not quite sure what you're asking me.

Q. You had come up to Altnagelvin to speak to Dr Quinn about his impression or the conclusions that he might reach, having read the case notes; isn't that right?

A. Yes.

Q. And the whole point of this review was to work out whether there were any acts or omissions on the part of the staff caring for the child, which could have contributed to her demise. This was an opportunity to get to grips with those questions; isn't that right?

A. Yes.

Q. So leaving the meeting, can you help us at all on what

impression or views you had formed on that question?
A. I can't recall the actual impression I had at the time, but certainly there were a number of issues in terms of documentation and level of prescription that were absent and we had identified that in advance of that meeting. I think Dr Kelly and myself, I'm sure, had a discussion on the way back. It probably centred around the fluid management in terms of the likely fluids administered and their impact on the child's deterioration. I can't recall in detail, but I think we probably had the impression that that wasn't the issue that caused the deterioration.
Q. Can you remember, Mr Fee, whether what was being said to you brought complete clarity to how Lucy had suffered her deterioration?
A. I wouldn't have thought it did bring complete clarity, no.
Q. Well, if it didn't bring complete clarity, did you see that in terms of how the Trust was going to move forward that there was a need for further investigative work to be done?
A. I can't recall whether that was obvious at that time or not.
Q. Dr Quinn's report arrived, dated 21 June, so it arrived the next day or a day or so later; is that fair? And

could we have a look at that, please? 033-102-271. This is the second page of the report. Tell me, Mr Fee, when the report came in, did you sit down and read it?
A. I would have done, I'm sure.
Q. And did you consult anybody else in relation to it?
A. I'm sure I would have, yes.
Q. Did you discuss it with Dr Kelly?
A. I think I would have, yes.
Q. Dr Anderson?
A. I'm sure I did, yes.
Q. And again, did you form any conclusions arising out of your reading and analysis of the report?
A. I don't have any notes of any of those discussions available to me at the moment and I don't recall what my thinking was at that time.
Q. The page that you have in front of you, at the top of it, describes what Dr Quinn is saying about the process or the sequence of events after the child suffered her seizure. It says:
"On reviewing the child's electrolytes in or around that time, it was decided that because the sodium was low, normal saline should be given."
Do you see that? It's four or five lines down.
A. This is page 2?
Q. Of the page in front of you.

A. I see it now, yes.
Q. Do you now appreciate that that appears to be factually incorrect?
A. I've seen it to be at around what time the second electrolyte balance was taken. I accept that if the electrolyte balance was taken after that that may have been incorrect, yes.
Q. The point being that Dr O'Donohoe arrived into the hospital from home and he was to provide information in his preparatory statement for the coroner, which indicated that at the time of his arrival most of the bag of normal saline had been run in and it was only at that point, because of his concerns, that he decided to take bloods for repeat electrolytes. And of course, the results from those electrolytes were only available after the normal saline had been run in in considerable amount. The upshot or the implications of that, Mr Fee, would appear to be that the serum sodium in Lucy's blood could have been either marginally -- at least marginally and perhaps more significantly -- affected by the input of normal saline. How could it be that you were coordinating a review where that important fact wasn't established?
A. I don't think that was obvious to us at the time.
Q. Perhaps it wasn't obvious, Mr Fee, because you permitted

the doctors who gave you witness statements to avoid the whole area of fluid management; isn't that right? If you had tasked them with the requirement to describe the fluid arrangements and the sequence of events, then this issue would have emerged; is that fair comment?
A. I think it's fair comment, but I would say to you that that was not a deliberate decision on my behalf.
Q. Who made the deliberate decision then?
A. I'm just making the point that I did not take a decision not to pursue it.
THE CHAIRMAN: The reason why you have been asked about this is there seems to have been a deliberate decision to ask the nurses about fluid management. That's in the list of issues which goes to the nurses. We don't have the list of issues which went to the doctors, but coincidentally the doctors do not deal with fluid management. So in essence I may conclude from that that, for whatever reason, the doctors were not asked to deal with fluid management, whereas the nurses were, which I think you have already agreed would be curious.
A. Yes.
THE CHAIRMAN: And what Mr Wolfe is saying is: if the doctors have been asked about fluid management in their statements or if their written statements have been followed up orally by meeting them -- and this isn't

a police interview, it's sitting down and discussing what happened -- it would be likely to emerge from that, whether Dr Quinn is right, whether the sodium was low and that is what prompted the normal saline to be given or whether the normal saline was given and at some point after that the sodium was low. And it makes a big difference, of course.

A. Yes, I accept that.

THE CHAIRMAN: Because the lower Lucy's sodium was, the more trouble she was in, and this has been one of the issues which wasn't clarified at the time and which, in effect, suggests why the review didn't really get to the heart of what happened. And I'm afraid, Mr Fee, that in those circumstances it's perfectly fair to ask you how it could have come about that the doctors were not asked about the fluids.

A. I accept that, yes.

THE CHAIRMAN: And I think your answer is you don't know how that came about, and while you say to me you don't know why it came about, you're saying there was no deliberate decision not to ask them.

A. That's correct.

THE CHAIRMAN: And I have to say, I have a bit of trouble accepting those two propositions together.

MR WOLFE: Could we go over two pages together to page 273

in this sequence. Under the heading "Was the resuscitation adequate?", Dr Quinn goes on again to talk about the mistaken assertion that during resuscitation, it obviously became apparent that the child's sodium had dropped to 127; that didn't come until later. But he goes on to say:

"I am not certain how much normal saline was run in at the time but if it was suspected that she was shocked then perhaps up to 20 ml/kilogram could have been given."

So this is the point I was making to you earlier. Notwithstanding what you say about what was discussed at the meeting or what the note, in fairness, suggests was discussed at the meeting, Dr Quinn seems to have emerged from that process in continuing uncertainty about how much had been given. Again, when you read that, Mr Fee, did that not strike you as odd if in fact the issue had been resolved at the meeting?

A. I don't recall thinking that at the time.

Q. Because what he's saying here is that it might have been appropriate if the child was shocked -- and he tells us, I think in his witness statement, that there was no indication that the child was shocked, but if she was shocked, then 20 ml per kilogram -- a round total of 180 or 200 ml -- would be appropriate. But of course, the

evidence is that she may well have got up to 500 ml. I'm asking: did that not strike you as odd or something that required further investigation?

A. I don't recall that at the time, no.

Q. And he says then in his concluding paragraph that he hopes these comments are helpful:

"I find it difficult to be totally certain as to what occurred to Lucy in and around 3 am or indeed what the ultimate cause of her cerebral oedema was. It is always difficult when simply working from medical and nursing records and also from not seeing the child to get an absolutely clear picture of what was happening."

So although his report, Mr Fee, suggests that the correct fluid was given pre-seizure and that the volume given wasn't grossly excessive, you have a report which is incapable of defining for you with any certainty why this child suffered her cerebral oedema; is that fair?

A. I think that's fair, yes.

Q. And nevertheless, you proceeded to begin the process of finalising a review report; isn't that right?

A. That would appear to be the case, yes.

MR COUNSELL: Can I just interrupt if we're moving on from that? I wonder if the witness could be invited to consider this: the questions raised by Dr Quinn in that report, the last page of which we have on the screen in

italics and in the page before and the page before that, are, perhaps he could be asked to comment on this, precisely the questions that Dr Quinn raised in the telephone conversation with Mr Fee back on 2 May. If you would, please, put up on the screen the transcript which was produced this morning at 034-042-103b.

Perhaps alongside it on the left we could put up 103a. We can see a number of question marks against a number of issues which, I think the evidence is, Dr Quinn was querying even at this meeting. I wonder whether the witness can comment on whether he appears to have been still raising the same questions in the report on 21 June.

THE CHAIRMAN: Is that how you read it, Mr Fee, that the questions which had been raised by phone were still being raised by Dr Quinn at the end?

A. I'm not sure that's how I did read it, but perhaps it was.

THE CHAIRMAN: Well, would this be fair to summarise it? He was uncertain when he was talking to you on the phone and he was still uncertain when he produced his written report?

A. Well, I don't know whether I wrote down word for word what he said to me on the phone or not, but I certainly wrote them question marks.

THE CHAIRMAN: Okay.
MR WOLFE: The next stage seems to have been for you to write to Dr Anderson and ask him to consider all the materials and to provide you with his comments; isn't that right?
A. That's my recollection, yes.
Q. He sent you a letter, if we could have it up on the screen, please, 033-102-262. Could we have alongside that, please, 263?
He sets out in the first paragraph something of the history and then he says that he found the report by Dr Quinn:
"... whilst being helpful in the sense that it ruled out any obvious mismanagement on the part of our medical/nursing staff at the hospital, was also evidence of the fact that there was no clearly obvious explanation for the child's sudden deterioration."
Can I ask you this: did you read Dr Quinn's report as indicating or ruling out any obvious mismanagement on the part of your staff?
A. I think Dr Quinn in his report had identified a number of the issues that we had identified in terms of absence of a prescription, the, I suppose, lack of clarity in terms of the detailing of the fluids as they were given, for example the fluid balance chart seemed to be

totalled in a different way from one would normally expect to see.
Q. Of all things, Mr Fee, you couldn't rule out mismanagement in this case because, self-evidently, this child received more fluids than the doctor says he intended; isn't that right?
A. Yes, I understand from the report that Dr O'Donohoe provided that he stated he intended to give 100 ml and then 30 ml, I think it was, per hour afterwards.
Q. Yes. So it didn't even require Dr Quinn to say this; there was obvious mismanagement in this case?
A. I'd accept that the documentation wasn't as it should have been, yes.
Q. But it goes beyond the documentation. The doctor is saying to the nurse, "This is what I want the child to have in terms of fluids", and according to him, the nurse connects up a different fluid regime. Whatever the rights and wrongs of that and whether or not the doctor is being accurate, you couldn't rule out mismanagement in this case; isn't that right?
A. I'd accept that, yes.
Q. Dr Anderson went on to say that:
"Nevertheless there was no clearly obvious explanation for the child's sudden deterioration."
And that's the point that Dr Quinn was making in his

concluding paragraph that we've just noted; isn't that right?
A. That's correct.
Q. He suggests that you incorporate within the report certain recommendations. First of all, he deals with lessons that can be learned on the left-hand page:
"The need for prescribed orders to be clearly documented and the importance of standard protocols to be readily available on the wards against which treatment can be compared."
And then at the top of the page he says:
"All team members involved in the care of the child on the night in question would probably benefit from a joint meeting and discussion of this report/findings. It would be appropriate for another meeting with the family to apprise them of the knowledge and opinions that we have at this point."
You received that letter and proceeded to finalise your report; isn't that right?
A. That's correct.
Q. You have described yourself and Dr Anderson as joint coordinators, you were co-equals in this process?
A. Yes.
Q. At any point, Mr Fee, did you sit down together to analyse all of the material that was available and

produce the final report?
A. I don't have notes of the meetings we had, but as I said to you, I think yesterday, we had a number of meetings, including one on 31 July, the day that the finalised report was agreed.
Q. And can you help us in terms of what tasks you were performing at those meetings?
A. As I said to you, I don't have notes of the meetings, but I would have thought that we'd have been trying to assimilate the information we were gathering and trying to make an understanding of it or trying to gain an understanding of it.
Q. Was there any sense, Mr Fee, of reaching the view that: while we have instigated this process of review, we haven't really come very far in terms of working out what has happened to Lucy; we actually need to take another approach and carry out further investigation? Was that ever a thought shared between you?
A. I don't recall that being an issue that we thought about at the time. Perhaps we did, I don't recall it.
Q. Because if you stood back, Mr Fee, you would have recognised that there was other evidence out there that could have been gathered; isn't that right?
A. Looking back on it, that's correct, yes.
Q. You've acknowledged, I think at various points, the fact

that the family should have been contacted and their evidence obtained.

A. That's correct.

Q. That has a particular resonance in the context of Dr Quinn's report because he bemoaned the absence of clarification around the event that occurred at 3 am; isn't that right?

A. That's correct.

Q. Indeed, ironically, if we could have the final report up, please, 033-102-266, under the heading "Level of description of event", ironically, Mr Fee, you are in a sense bemoaning the fact that:

"There is little detailed descriptions of the events and no account appears to be in existence of the mother's description, who was present, and discovered Lucy in this state."

So this is a report which highlights the uncertainty around what caused Lucy's demise. You identify a piece of evidence that might assist you and yet it wasn't followed up; isn't that right?

A. I'd accept that, yes.

THE CHAIRMAN: Just while we're here, were you here when Dr Anderson gave evidence?

A. No.

THE CHAIRMAN: Did you see in the transcript what he said?

A. I did scan his transcript, yes. I wasn't here.

THE CHAIRMAN: What he said was:

"I was in no position to disagree with Dr Quinn, which is why I couldn't challenge him, but I still thought it was the volume of fluid that had caused Lucy's death. I must have told Mr Fee, I think he agreed, but Dr Quinn didn't, therefore I must have accepted I was wrong."

Do you remember Dr Anderson discussing with you that he thought Dr Quinn was wrong?

A. I don't recall that, no.

THE CHAIRMAN: Then it follows, I assume, that you don't remember agreeing with him that you thought that Dr Quinn was wrong?

A. I don't, no.

THE CHAIRMAN: Do you remember Dr Anderson expressing any view, "Look, we've got this report from Dr Quinn, I'm not all that happy with it or I'm not convinced about it", and having a discussion with him about whether you would go elsewhere?

A. I don't recall that discussion, no.

THE CHAIRMAN: Thank you.

MR WOLFE: Another source of evidence that was available to you or could have been available to you, Mr Fee, was the clinicians at the Royal Belfast Hospital or the

pathologist at the Royal Belfast Hospital, or even seeking the discharge letter from the Belfast hospital. But none of those steps were taken; isn't that right?

A. That's correct. We had the post-mortem report, but we didn't have any -- I didn't, or I don't think Dr Anderson had, have any direct dialogue with the clinicians at the Royal.

Q. Just while you mention the post-mortem report, could I briefly bring you back to your encounter with Dr Quinn: did you have the post-mortem report available at that meeting?

A. I believe we did.

Q. Was he shown a copy of it?

A. I'm sure he was. I can't recall, but I'm sure he was, yes.

Q. Can you help us at all whether he was given a copy of it?

A. He may have been, I don't recall.

Q. Turning back to the failure to exploit the evidence that might have been available to you via the Royal or via the pathologist or by accessing the discharge note or requesting one -- because it would appear that one wasn't in fact produced -- could we go over, please, to 268 of this sequence? You can see at the top of the page the issues that arose with regard to linkage with

what was referred to as "the regional centre". That's the Royal; isn't that right?

A. Yes.

Q. "A number of issues arose in respect of our link with the regional services. These included the arrangements to support the transfer of such patients, the need for greater communication between the local hospital and the regional hospital in respect of feedback which is to be given to parents in such instances, and the significant time delay in getting access to the final post-mortem report."

Can I ask you what that phrasing means when you're critiquing the need for:

"... greater communication between the local hospital and the regional hospital in respect of feedback to the parents"?

What does that mean?

A. I can't recall what my thinking was at the time, but having reviewed a lot of the material in advance of this hearing, certainly I recall seeing an expectation by the regional unit that, for example, Dr O'Donohoe would meet with the family. I think clinicians at the Royal had met with the family as well, from memory, and I may well have been thinking that there wasn't a connection between the two, but I don't recall exactly what the

thought processes were in terms of scribing(?) the words on the page.
Q. But it's fair to say that you, as a review team, didn't speak directly to the Royal to understand their concerns?
A. That's correct.
Q. Can I take you back to the point that is made in respect of the fluid regime itself? If we could go back two pages, please, to 267. The level of fluid intake and Dr Quinn's opinion on that is described in the first paragraph. And then the second paragraph, Mr Fee, goes on to say that there was no written prescription to define the intended volume. It says:
"There was some confusion between the consultant and the nurses in relation to the intended volume of fluid to be given intravenously."
Can I ask you, is that deliberately understated, "there was some confusion"?
A. No, I don't think it is deliberately understated. It could have been written that there was a disagreement around it, around what was said or what wasn't intended.
Q. Could it also have been written that, "There was a prescribing error or an administration error", or, in real terms, "This child received more fluid than the consultant said he intended and received, at least

initially, a different type of fluid than he intended"?
A. I don't believe that that was the intention, no.
Q. Well, that's what Dr O'Donohoe says was the problem. He said that he intended a bolus of normal saline -- at least that is his evidence -- for one hour, followed by 30 ml of Solution No. 18 until the child produced urine. That was his description; isn't that right?
A. I understand so, yes.
Q. And the child got something entirely different, both in terms of volume of fluid and type of fluid.
A. Yes.
Q. You wouldn't be able to infer that from a description of mere confusion. You wouldn't see from reading that that there had been a fluids administration error. And I'm asking you whether that mismanagement has been improperly described.
A. All I can say to you is I don't recall why I used the words I used in the report, and certainly I don't believe that I had any intention to misdescribe.
THE CHAIRMAN: To be fair to you, let's bring up the next page with it. Could we bring up 267 and keep 266 on screen? Because on 267, Mr Fee, as you will recall, at paragraph 4, under "Communications", you do refer to the difference between what Dr O'Donohoe says he intended and what was actually done. But that's put down under

a heading about communications rather than the amount of fluid given; right?
A. I see that, yes.
THE CHAIRMAN: But even after you have done that on paragraph 4 on the right-hand side, you express what the nursing staff understood and then you go on in the next sentence to say:
"Furthermore, this was considered by the nursing staff interviewed to be a standard approach in such circumstances."
Well, how was there a standard approach to give a child 100 ml an hour? What child? What child was to receive 100 ml an hour? A child of 8 kilograms, a child of 12 kilograms? How can there be a standard approach to give a child 100 ml an hour?
A. I accept the point you're making, chairman.
THE CHAIRMAN: You see, it rather plays into the point Mr Wolfe was asking you about how that could possibly be a standard approach and how that is put down as a communications issue rather than an issue about level of fluid. There was certainly a communications issue in the sense that the nurses had a different understanding than Dr O'Donohoe said he meant to give them. So there's certainly a communication issue, but the volume of fluid that Lucy actually received is

something different. That's a different point, isn't it?
A. Yes. I accept that.
THE CHAIRMAN: And it's put into "Communications", whereas realistically -- and I hope I'm not being too pedantic -- it should be in the "Level of fluid intake".
I think Mr Wolfe is going to take you on to Sister Traynor in a moment, but I don't quite understand how nursing staff could agree that a standard approach in such circumstances is to give 100 ml an hour. I don't see where a standard comes from, but maybe, Mr Wolfe, you'll go into that.
MR WOLFE: Yes. The line that we want to pick up on in paragraph 4 there on the right-hand side is:
"Furthermore, this [that is the regime that she received] was considered by the nursing staff interviewed to be a standard approach in such circumstances."
So what you're saying there is: notwithstanding the communications issue, what she in fact got, 100 ml per hour until she produced urine, was a standard approach, according to the nursing staff. Is the nursing staff you're referring to there Sister Traynor?
A. I think it's probably referring to the discussion I had with Sister Traynor and Nurse Swift.

Q. And if we could bring up on the screen, please, what you attribute to them during that discussion. It's 033-102-295. You have interviewed them face-to-face; is that correct, Mr Fee?
A. That's my understanding, yes.
Q. Sister Traynor was being interviewed notwithstanding the fact that she hadn't cared for the child on the night; isn't that right?
A. That's correct.
Q. You saw some value in speaking to her because she was the ward sister?
A. That's correct.
Q. And you thought that she might be able to assist you with regard to fluids in general?
A. I think my thinking at the time probably was to try and get some sense of what was the normal practice in the ward.
Q. Why did you interview her in the presence of Staff Nurse Swift?
A. I can't recall. I suspect Sister Traynor actually brought Staff Nurse Swift with her.
Q. She has told the inquiry that she thought the scenario where you were interviewing both of them together was inappropriate. If that's right, it hardly seems likely that she would have brought her along for the meeting.

Is it not more likely that you required the attendance of both of them?
A. I don't recall whether that was by arrangement or my behalf or whether it was an arrangement on behalf of Sister Traynor.
THE CHAIRMAN: In a sense Sister Traynor was a whistle-blower, wasn't she, because she had come in on the Thursday morning and almost immediately she had recognised that there were problems and she had said, depending on how you interpret the fluid records, that that may be the cause of Lucy's problem? So she had led to the report being compiled with Mrs Millar, which had led to the review?
A. That's my understanding, yes.
THE CHAIRMAN: So she's the one who's saying, forgetting about all the doctors and forgetting Dr Auterson, Dr Chisakuta and Dr Stewart, Sister Traynor immediately recognises a problem, but you then interview her or meet with her, to put it less formally, in the company of a nurse, who was one of the nurses who was giving Lucy fluids the previous night. At least now, does that seem to you to have been the wrong thing to do?
A. I'd accept it probably was the wrong way to have gone about it.
THE CHAIRMAN: It's one thing for Sister Traynor to wave the

flag, which can be, I understand, sensitive enough, but then to expect her to sit down in the room with one of the people about whom she's waving the flag and be critical of her to her face is asking a bit more from her; yes?
A. I accept that, yes.
MR WOLFE: The note you have made of the conversation with Sister Traynor, she wasn't ever shown that note; isn't that right?
A. I would accept that's probably true, yes.
Q. It was to form appendix 11, as we see, of your report, and was included in your report to give support to the proposition that, notwithstanding the fluid administration error, what the child actually received was a common or not unusual fluid regime. That's why that report was included.
A. I can't recall, you know, that being the reason, but certainly it was included in the --
Q. It was a direct link between this appendix and what we have just looked at in, I think it was paragraph 4 of the report. What you have attributed to Sister Traynor is that she commented that the fluid replacement volume was not unusual in a child of this age, given her condition. She also stated that there did not appear to be evidence of overload of fluids:

"We reviewed the notes again. Sister confirmed that the rate to be administered would normally be recorded on the fluid balance chart along with the type of fluids."
And then you move into the conversation with Staff Nurse Swift.
When this note was put to Sister Traynor, she explained to the inquiry that the views attributed to her were completely inaccurate. First of all, she said, Mr Fee, that she would not have been in a position to comment on the appropriateness or otherwise of this child's fluid regime because she didn't know the case.
A. Yes.
Q. She said that the idea that this would be a normal fluid regime isn't the kind of view she would express as a nurse because there is no such thing as a "usual" or a "normal" fluid regime because every case is fact or child-specific. What a child gets in terms of fluids depends upon their weight and their condition, to name just but two factors.
What she did say in terms of the question that was put to her -- she recalls being asked:
"Was it unusual for a patient to have 100 ml per hour?"
And she responded:

"This could be the case for older children as the ward admitted children up to 16 years of age."

That's what she has told the inquiry in her witness statement.

Have you misrepresented what Sister Traynor said to you?

A. I took the note, I think, at the time that we met. Perhaps I misinterpreted what she was saying. It sounds as though Sister Traynor obviously had a different intention from what I interpreted it.

THE CHAIRMAN: I think the other point to make is that in the second line it says:

"Not usual in a child of this age given her condition."

And Sister Traynor says:

"I didn't know what her condition was, I didn't treat her, so I can't say what would be usual, given her condition, which I'm unaware of."

So that rather does suggest that whatever she was saying, you were misinterpreting or misunderstanding.

A. That's perhaps the case, yes.

MR WOLFE: Why was it, Mr Fee, that you were speaking to Sister Traynor about what might be regarded as usual and not speaking to the prescriber in this case, Dr O'Donohoe?

A. I don't recall the rationale for that, but a decision -- whether it was my own decision or whether it was as a result of a discussion with Dr Anderson, I can't recall -- was taken to speak to Sister Traynor.

Q. Sorry, I didn't catch that last bit.

A. I said I can't recall the rationale behind it, but a decision was taken, whether it was my own decision on an individual basis or as a result of a discussion with Dr Anderson, to speak to Sister Traynor.

THE CHAIRMAN: Can I check with you -- and I'm sorry if I asked you this yesterday, I can't remember -- did Dr Anderson seem reluctant to speak to the doctors? You seem to be left speaking to nurses, which, as we discussed yesterday, might be entirely appropriate. But Dr Anderson appears, to me, on the sort of evidence you have just given, perhaps to be reluctant to speak to the prescribing doctor about what a normal fluid regime was and how much out of kilter 100 ml an hour would be. Instead, you're left to ask Sister Traynor and Nurse Swift.

A. I don't recall getting that impression, but that may be the case.

THE CHAIRMAN: Thank you.

MR WOLFE: Mr Fee, one of the other sources of evidence that was potentially available to you was Dr Asghar.

Dr Asghar had, on 5 June, written a letter to Mr Mills, indicating a concern that this child had had an excess of fluids and had, according to the post-mortem, been left with a cerebral oedema. Did you ever consider approaching him in order to further understand his views about what was appropriate in terms of a fluid regime?

A. I don't recall having considered that.

Q. You attended a meeting with Dr Asghar in the company of Dr Kelly; isn't that right?

A. I don't recall that either, but I do recall having read the notes more recently of it, so yes, I would have been there.

Q. Dr Kelly has told the inquiry that you and he followed up with Dr Asghar his letter to Mr Mills in order to take him through his understanding of what would happen next. That was an opportunity to engage with him for the purposes of the review just what his understanding was of an appropriate fluid regime, but you didn't take that opportunity; is that right?

A. I would accept that, yes.

Q. Was there a perception abroad, Mr Fee, that this Dr Asghar was a troublemaker who was kicking up dirt about Dr O'Donohoe and therefore he wasn't to be taken seriously?

A. I don't recall whether there was that perception or not,

but from, again, reading the materials more recently, I think Dr Asghar's letter was in the form of a complaint, so we were seeing him in that context.

Q. Well, in that sense, perhaps in a slightly broader sense, Sister Traynor's letter or Sister Traynor's intervention was in the form of a complaint or an expression of concern, to put it more generally, that this fluid regime wasn't right, and you quite properly went and spoke to her about her views, albeit there's this issue about whether you properly recorded her views.

A. Yes.

Q. And yet this gentleman, Dr Asghar, who has been described by Dr Kelly as someone who was perceived as throwing dirt up, wasn't spoken to. I'm wondering, can you help me in terms of the contrast of approach? Why did that contrast of approach occur?

A. I can't recall why that was the case. To be honest with you, I don't recall the details of his letter now either.

THE CHAIRMAN: Okay. We'll move on.

MR WOLFE: Having signed-off on the report, it was sent to senior management; is that correct?

A. My recollection was that it was sent to the chief executive and to Dr Kelly.

Q. And what next, Mr Fee? In terms of your involvement, the report leaves your desk. Are you engaged in discussions then with Mr Mills and Dr Kelly about what your report means, what its implications were, possible ways forward?
A. I can't recall being, but I'm sure I was with both of them, probably on an individual basis.
Q. Mr Mills says in his witness statement to the inquiry that he discussed the findings with you and Dr Kelly and, while he acknowledged the absence of an absolute explanation for the child's deterioration and death, was content to await the outcome of the Royal College exercise, which was being started up at that point. Do you have any memory of him expressing those views to you?
A. I don't recall that, no.
Q. Well, have you any recollection at all, Mr Fee, of any sense of dissatisfaction that the Trust hadn't arrived at any definite conclusions with regards to what had happened to the child?
A. I don't recall this being raised as an issue with me personally.
Q. Can you recall any sense of anxiety that you still hadn't got to the bottom of all of this?
A. I don't recall that, but I think at the time we were

anticipating there would be an inquest into the child's death.
Q. You have said quite candidly in your witness statement to the inquiry that the review could have been done in a much better fashion; isn't that right?
A. I'd accept that, yes, on reflection.
Q. Could we have up on the screen, please, WS287/1, page 20? At question 52 you're asked:
"Are you now satisfied with the review which you and Dr Anderson conducted and the conclusions which were reached?"
You say:
"The approach taken to conduct the review was consistent with the approach used in Northern Ireland at the time. The root-cause analysis method was introduced later with training being provided. I am not now satisfied with the review we conducted or the conclusions we reached given the findings of the inquest. On reflection, we should have involved the family at the outset; the review should have been conducted using a more systematic approach such as a root-cause analysis. The team selected should probably have benefitted from the inclusion of a paediatrician and an experienced paediatric nurse and perhaps the medical director. We probably relied too

much on the external opinion without having the expertise to examine the opinion offered. The case should probably have been jointly reviewed or investigated by the two hospitals involved in Lucy's care."
You would accept, Mr Fee, that you don't need the benefit of hindsight necessarily to recognise that this review wasn't adequate; is that fair?
A. My statement is with the benefit of hindsight. At that time, I must say, I don't recall recognising that at the time.
Q. Can you recall when you were informed that there wasn't to be an inquest in this case?
A. I can't recall, but I think it was quite some time afterwards.
Q. Mr Mills tells the inquiry that it was October 2001, about a year-and-a-half after the death, that the Trust was informed; does that sound right?
A. That's probably about right, yes. I don't recall the timing.
Q. Can I ask you this: when you did learn that there wasn't to be an inquest, did that cause you some surprise?
A. Yes, it would have surprised me, yes.
Q. Can you explain to me just why it would have caused you surprise?

A. Well, my understanding was that the case was referred to the coroner. My experience had been that unexplained deaths were generally the subject of an inquest.
Q. And this remained an unexplained death so far as you were concerned?
A. Well, we had not certainly, through our review, identified an explanation.
Q. You have told us that:
"Having attended the inquest, I accept that there was too much of an incorrect fluid administered to Lucy at the Erne Hospital."
Can I ask you whether that conclusion was reached by you before attending the inquest?
A. I don't recall it having been, but I sat through two days of inquest and I heard a lot of very technical detailed discussions around the relevance of Solution No. 18 or -- sorry, the appropriateness of Solution No. 18 or otherwise. I also heard -- I recall hearing a lot of discussion around whether the fact a sodium of 127 was significant or not or whether it was the rate of drop that was significant or not. I must say that some of the discussion I may not have been fully fit to understand from a technical point of view, but the conclusion of the inquest was clear.
Q. You, as the director of acute hospital services, were

obviously part of the senior management team for the Trust. Were you ever shown a copy of Dr John Jenkins' report, which was obtained for medico-legal purposes at the start of 2002?

A. I don't recall so, but I may well have been.

Q. And that report acknowledged that the wrong fluid had been adopted for replacement purposes; it should have been normal saline. Does that not ring a bell with you?

A. I don't recall that. I mean, I have seen the report since now, but I don't recall seeing it at the time.

Q. The Royal College reports, of which there were two -- one by Dr Stewart and then a second one co-authored by Dr Stewart with Dr Boon -- the first of those reports, you appear to have attended a meeting at which that report was discussed, yet you tell the inquiry that you can't recall receiving either of the reports. They may have been discussed with you, but you can't recall.

A. That's correct.

Q. Thinking back now, can you remember seeing either of them?

A. I can't. I think I have seen them more recently. In fact, I think I seen in one of the reports that I was actually interviewed by Dr Boon, I think it was, and Dr Stewart.

THE CHAIRMAN: Given your position in the hospital at that

time, should you have seen the reports when they became available?

A. I probably did see them, but I can't recall them.

MR GREEN: Sir, it may assist both you and the witness if reference 036a-155-326 is called up, please.

MR WOLFE: This is a meeting of 25 September 2002, which would have been, in chronology terms, hot on the heels of the receipt of the second Royal College report. It has you placed at a meeting with Dr Kelly and Dr O'Donohoe. If we could go over the page, I think, it may not help us in the way it's been redacted.

THE CHAIRMAN: We get the gist of it. I think from the three lines that are available to us, it does suggest this was a discussion about Dr Stewart's report.

MR GREEN: I agree. It may be profitable if, during one of the breaks, somebody from the Trust has another look at these redactions and sees if any of them can, in fact, be withdrawn.

MR WOLFE: In fairness may well have been redactions imposed by the inquiry, but --

MR GREEN: There it is.

THE CHAIRMAN: We've got the point. This comes after -- this is the second Royal College report, isn't it, in September 2002?

MR WOLFE: I don't think, in fairness, Mr Fee, you're

aggressively challenging the proposition that you did see the second report, it's just "I can't recall" seems to be the response.

A. That's correct.

Q. The second report, Mr Fee, was the one that stated in unequivocal that this child had died of previously unrecognised hyponatraemia. The short point I'm merely putting to you is: you didn't have to wait until the inquest to discover that hyponatraemia was at the root of the problem here; it came much earlier than that.

A. I accept that, but I can't recall the report at the time.

Q. Two final points, Mr Fee. The recommendations of the review report; can I ask you about them? There were recommendations to improve the protocols and the administrative arrangements around fluid prescribing in the hospital; isn't that right?

A. That's correct.

Q. Were they implemented?

A. I believe they were, yes.

Q. There was a recommendation that staff should be engaged in a meeting in order to discuss what might be profitably learned from the experiences of Lucy's death; was that meeting carried out?

A. I don't recall that being carried out, no.

Q. Who was responsible for ensuring that that would be carried out?

A. Well, my belief would have been that it would have been the responsibility of the directorate managers, Dr Anderson and Mrs Millar.

Q. And who was responsible for ensuring that they did their job effectively?

A. Myself.

Q. And what steps did you take to ensure that this meeting took place so that proper and appropriate learning could occur?

A. I would have met with them each month and that would have been the subject of discussion. I don't have any of the notes of those meetings available with me.

Q. And nor has the inquiry seen any evidence that a meeting of the type described and recommended in the report took place. For that matter, the final of the recommendations contained in the report concerning a requirement to meet with the parents --

A. That's correct.

Q. -- that didn't occur; isn't that correct?

A. That's correct, yes.

Q. The report was published, dated 31 July, and looking at the chronology, Mr Fee, a complaint came in from the parents on 22 September, which the Trust were expected

to investigate. You were made aware of the complaint; isn't that correct?
A. I would have been, yes.
Q. So a full two months had passed since the publication of the review report and nobody had been in touch with the parents. If they hadn't issued a complaint letter, was anybody at the Trust going to contact the parents?
A. That would have been the intention, yes.
Q. Well, when was that going to happen? Because two months had passed and then their letter came in. Were there any plans afoot to get in touch with the parents?
A. That would have been raised with Dr Anderson and Mrs Millar during -- we had a monthly meeting --
Q. Yes.
A. -- a formal meeting, but I don't have any notes of those meetings available to me now.
THE CHAIRMAN: But there's no -- you weren't aware that a complaint was going to come in so you had no reason to wait for a complaint; is that right?
A. No.
THE CHAIRMAN: In fact, as it turned out, if they hadn't got Mr Millar's help with the complaint, and Mr Millar hadn't spotted the connection with Raychel, this unravelling of what happened in Lucy's case, I suggest, only came about because Mr and Mrs Crawford made

a complaint through Mr Millar; isn't that right?
A. I would accept that, yes.
MR WOLFE: Could I have up on the screen, please, 015-028-132. This is the letter sent to the Crawfords by Mr MacCrossan on Mr Mill's behalf and he says:
"I have had Mr Fee, director of acute hospital services, prepare the enclosed report in relation to Lucy's care at the hospital."
You were asked to prepare a further report for the purposes of sending to the Crawfords; isn't that right?
A. That's correct.
Q. It wasn't the report that you had originally prepared for the review, albeit in large measure it replicated the contents.
A. Yes, I've looked at that more recently and that's correct, yes.
Q. Why weren't they simply sent the review report which you had earlier drafted and submitted to management?
A. I don't know why that was the case.
Q. Well, you were the person who drafted the report for management in concert with Dr Anderson. In turn, you were the person who drafted the report or amended the original report, perhaps is a better way to put it, and sent it to the parents.
A. That's correct.

Q. You must, Mr Fee, be in a position to help us in terms of why the report sent to the parents was different to the one sent to management.
A. I don't recall, to be honest with you, the rationale for sending a different version or a shorter version of the report.
Q. Could I look at 033-102-268? Those are the recommendations contained in your original report.
A. Yes.
Q. Were the family told of those recommendations?
A. I don't believe they were at that stage.
Q. Were the family provided with a copy of the appendices to the report?
A. In the letter covered by Mr MacCrossan?
Q. Yes.
A. I don't believe so, no.
Q. Can you explain why they weren't provided with the recommendations or provided with the appendices?
A. I can't explain that, no.
THE CHAIRMAN: Can I suggest at least one reason? If the family had been sent the full report in January 2001, they would have seen that in July 2000 there was a recommendation that it would be appropriate for another meeting to be held with them and it would have been terribly embarrassing for the hospital to tell the

family, almost six months later, that the hospital had been sitting on a recommendation which it hadn't bothered fulfilling. That would have been very embarrassing, wouldn't it?
A. Perhaps. I don't recall whether that was part of any rationale or not.
MR WOLFE: Thank you. I have no more questions.
THE CHAIRMAN: Any questions from the floor?
Questions from MR COUNSELL
MR COUNSELL: If I could ask one relating to the review report and then tidy up two matters relating to answers he gave to the police?
I wonder if the document at 033-102-269 could be brought up on the screen. That's the list of appendices to the report. I wonder if the witness might, having looked at that list of appendices, give us an explanation as to why the post-mortem report doesn't appear on the list.
THE CHAIRMAN: Can you help, Mr Fee?
A. I can't, I'm afraid.
MR COUNSELL: In fairness, we can see at item 10 what I'm going to call the short post-mortem, the unsigned one-page one, but that only appears, I think, because in his letter, Dr O'Donohoe includes it with his one-page report. And the other omission, it may be thought from

these appendices, is Dr Kelly's record of his meeting with Dr Quinn, which the witness attended. I wonder if the witness can explain why that was omitted when, at item 5, his notes of the feedback from Dr Quinn on 2 May is included?

MR WOLFE: That's the record for the 21 June meeting?

MR COUNSELL: Yes.

MR WOLFE: Mr Fee, can you help with us that?

A. I'm sorry, I can't explain why that wasn't included either.

Q. Should it have been included?

A. It could have been, yes.

Q. Should it have been?

A. On reflection, it probably should have been, yes.

THE CHAIRMAN: Anything else, Mr Counsell?

MR COUNSELL: Yes. Just briefly, if I may.

I wonder if two answers which Mr Fee gave to the police -- if 116-032-006 could be brought up on the left-hand side of the screen and then 007 on the right? There is a long question which takes up half of the left-hand page from DS Cross, to which the reply on the top of the next page from Mr Fee is:

"Yes, I would accept that."

Can I just ask the witness to consider whether he is accepting everything that DS Cross said in his question

or whether it's only part of it, when DS Cross says this:

"Right, you see, Murray Quinn did make the point -- and you have already referred to it -- and he said, 'If you want more than I'm going to do, go and get your independent report, go elsewhere', and he has guided you partially by looking at the notes. But -- and I'm quoting what he tells us -- what he wouldn't do is interview the nurse, he wouldn't interview the doctors and, crucially to him, he wouldn't interview the family, and maybe he has discussed this with you, but he did feel, just as you have said there, that the mother had important information because he says the type of incident that occurred at 2.50 or 3 o'clock in the morning is very important. If it's a febrile convulsion it means one thing, if it's coning, it means another, and he said the only person who had the information there was the mother, because if she would describe exactly how the child behaved in the seizure, Murray Quinn says he would have known immediately whether it was coning because it's very distinctive, or whether it was some other form of a seizure. Therefore, your view is hampered significantly by the fact that the mother isn't interviewed and the doctors aren't interviewed and -- well, maybe that's not true; but not

by Murray Quinn, anyway."

To which the witness's answer was:

"Yes, I would accept that."

And I'm just wondering whether he's accepting that summary of the position from DS Cross or whether his acceptance relates only to part of it.

THE CHAIRMAN: You understand the question?

A. I understand the question.

THE CHAIRMAN: Is it your position that you accept all of the points made to you by DS Cross, which you accepted at the time of interview?

A. My reading of that -- and I don't recall the detail of it at the time here now. My reading of that is that he made a statement, basically read a list of what propositions he was putting forward, and then he says here somewhere:

"Therefore your review ... hampered significantly ..."

And I would accept that. I think that is the context of what I said, "Yes, I would accept that" to.

THE CHAIRMAN: I think Mr Counsell is asking you the earlier point: do you accept that, "If you're looking for more than I'm doing, go and get your own independent review"; do you accept that?

A. I don't recall that ever being said to me, no.

THE CHAIRMAN: Do you accept that he said he would not interview the nurses or the doctors or the family?

A. I don't recall that, but he probably did say that. I don't recall that.

THE CHAIRMAN: Okay.

MR COUNSELL: Just finally then, one other question and answer. At 116-034-010, DS Cross towards the bottom of the page in the question which begins with the words "wrong amount":

"Did you find that Dr Quinn's report was satisfactory and adequate to meet your needs?"

To which the reply is:

"I think it addressed our needs as far as he could go. You will see within Dr Anderson's response to me, you know, he raised the issue that it doesn't give us necessarily a conclusion as to what happened to Lucy."

And my question is: is that a fair summary of how things were left after Dr Quinn had provided his report?

THE CHAIRMAN: Do you stand by or disagree with the answer you gave to DS Cross?

A. No, I don't disagree with what I said at the time.

MR COUNSELL: Thank you very much.

THE CHAIRMAN: Any more questions? Ms Simpson, it's your witness. Thank you very much.

I've got into the habit of saying to witnesses, as

they finish their evidence, they don't have to say anything more, but I give them an opportunity to say something more before they leave the witness box. In your case, you have already expressed, in your statement to us, your view from now, looking back on the adequacy of the review, so I have that. It is a matter for you about whether you want to say anything more. If you don't, you can leave.

A. Chairman, I have nothing further to add.

THE CHAIRMAN: Thank you very much indeed, Mr Fee.

(The witness withdrew)

Ladies and gentlemen, we'll take a break now for 15 minutes and I'm anxious to ensure we finish Dr Quinn today because he's travelled here on the promise that he would be finished today. So we'll start, Mr Wolfe, at 12.30 and we'll get into his evidence before lunch.

(12.15 pm)

(A short break)

(12.40 pm)

DR MURRAY QUINN (called)

Questions from MR WOLFE

THE CHAIRMAN: Doctor, what I plan to do -- and I hope this works -- is that we'll sit now until about 1.15 or 1.20, we'll break until about 2 o'clock for lunch, and then we'll resume as tight to 2 o'clock as we can to try to

make sure that we'll finish your evidence today.

I have to say, if we can't finish it, I'm not going to force it through because that might mean your evidence doesn't come out in the way that you would want to answer the various questions and we wouldn't necessarily get all the questions asked that we would want, but I very much hope that we will get you finished this afternoon.

MR WOLFE: Good afternoon, Dr Quinn.

A. Good afternoon.

Q. We start by asking you about some of the materials that have already been submitted on your behalf. First of all, you kindly provided to the inquiry two witness statements, 279/1 and 279/2, dated 9 November 2012 and 13 March 2013; you'll remember that?

A. Yes.

Q. And, secondly, the inquiry has in its possession a witness statement which you provided to the PSNI on 11 March 2005 --

A. Yes.

Q. -- and that's 115-0414-001. We start by asking whether you wish to adopt those materials as part of your evidence today, to be supplemented by your oral evidence?

A. Yes, I do.

Q. Okay. In April, May and June 2000, that's the period with which you had some involvement in Lucy Crawford's case, you were a consultant paediatrician at the Altnagelvin Hospital in Derry; isn't that correct?

A. Yes, that's correct.

Q. Could we have up on the screen, please, a copy of your CV? It's 315-001-001. As we can see, you outline your present employment, "consultant paediatrician"; do you still work as a consultant paediatrician?

A. No, I retired from clinical practice in 2006, August 2006. I continued, for two years, to examine for the Royal College of Paediatrics and Child Health for the membership of that college, but have not taken part in any clinical medicine since retiring in August 2006.

Q. Yes. And so this is correct, if you like, as of the date of your involvement --

A. Yes.

Q. -- in Lucy's case? You set out your various qualifications. "DCH, Glasgow, 1972"; is that a diploma in child health?

A. Diploma in child health, yes.

Q. And the MRCP is a Member of the Royal College of Paediatrics?

A. Of physicians. At that time, there was no separate

exam. It was through the Royal College of Physicians, one of the three colleges, Edinburgh, Glasgow and London.

Q. I don't think it appears here, correct me if I'm wrong, but I think you told the police that you were a fellow of the Royal College of Paediatrics and Child Health?

A. Yes, and the three other Colleges of Physicians, that is the Glasgow College of Physicians and Surgeons, the Edinburgh College of Physicians, and the London College of Physicians.

Q. Then you set out your various appointments, starting off with your JHO in the Royal Victoria Hospital, working through the various grades --

A. Yes.

Q. -- ultimately, specialising in paediatrics.

A. Yes, quite early on, actually I started in paediatrics.

Q. If we go over the page to 002. You spent some time working in South Africa?

A. I had two years in Durban, in the King Edward VIII Hospital, which mainly looked after the Zulu -- well, what was termed at that time "The Black Hospital", I worked for two years in that.

Q. Before returning in 1977 to Belfast?

A. Yes.

Q. And ultimately, up the road to Altnagelvin

from January 1978, where you worked until your retirement in 2006?
A. That is correct.
Q. As well as working in Altnagelvin, there was an arrangement, certainly during the 1980s and into the 1990s, where you would spend some time every week or every second week in other hospitals, and I'm thinking in particular of the Erne Hospital.
A. Yes. I did not do that for the first five years of my appointment to Altnagelvin. I had one other colleague who wished to cover Omagh and Enniskillen at that time. It was when he retired and I had another colleague at that point that we then started doing a regular shared commitment to the rest of the Western Board, as it was at that time.
THE CHAIRMAN: Was there a paediatrician in the Erne at that time?
A. No, there was not a paediatrician in either Omagh or Enniskillen at that time. It was the general physicians who looked after the day-to-day care of children with free access to ourselves for telephone and obviously, ultimately, the clinics and ward rounds and teaching.
THE CHAIRMAN: Thank you.
MR WOLFE: If we just put up on the screen the extract from your statement that deals with this period of time.

WS279/2, page 4, please. I don't think you need the question, which is on another page. We'll just look at this; it just describes quite factually the role that you provided to the Erne Hospital.
A. Yes, I think that's an accurate record.
Q. So to summarise, in the period 1983 to 1989, on an alternate monthly basis, you would have held an outpatient clinic there --
A. Yes.
Q. -- followed by a ward round in the maternity unit and the paediatric ward. And then, from the summer of 1989 until the summer of 1994, you performed a weekly ward round. Was this an increase in the attendance compared to the period up to 1989?
A. In that we went on a Friday morning as well. The time before that, it was actually a weekly clinic, but on a monthly, alternating basis between myself and my colleague.
Q. Yes. I want to bring you quite quickly now to the events of mid-April 2000. In or about 20 April, according to Mr Hugh Mills' account, he contacted you by telephone.
A. Yes.
Q. Do you remember that contact?
A. Yes, I do.

Q. I'm searching among my many papers here just for a note that came in from you this morning. Yes, I have it here. Could we have up on the screen, please, 324-012-002? And back a page too. Could you just help us with the genesis of these notes? They were produced to the inquiry this morning --
A. Yes.
Q. -- whereas the inquiry, as you will know, put out a call for relevant papers quite some time ago.
A. Yes, I apologise to the inquiry that I hadn't found these. There's another ongoing event in my case, so there are a lot of papers, both for the inquiry and for the other event, shall I say, and I was going through last night all my papers to make sure I had everything down with me today. Amongst the papers for the other event I discovered these two slips of paper. Obviously, they were something which needed to be enclosed, needed to be revealed to the inquiry, and hence I contacted my solicitor last night --
Q. Very well.
A. -- and hence they're here today. As I say, I apologise for them coming in late. It wasn't intended.
Q. There are other pages that we'll go to at the appropriate point. But that's in the hand of your secretary --

A. That's right. That's my secretary.
Q. -- as Mr Counsell suggests?
A. It is indeed.
Q. "Ring Hugh Mills, chief executive, Sperrin Lakeland [and his number]. He will be there for a while or the morning will do."
That's the trigger for you coming into contact with each other to discuss the case of Lucy Crawford?
A. That is my belief.
Q. And then if we could have 324-012-003. Can you help us with this note, doctor?
A. Well, I've obviously been thinking about what this could be. I believe that is a calculation based on an approximate weight, which was 9 kilograms, for giving fluids with no dehydration, 5 per cent dehydration, and 10 per cent dehydration. It also then mentions an oral amount of fluids of 150, IV 11 to two --
Q. Sorry to cut across you. It would help perhaps if you just read verbatim from the top of the page every word you see there.
A. Okay:
"9 kilograms. No dehydration. 1,100 ml maintenance per day equals 45 ml per hour. 5 per cent dehydration, 1,500 ml equals 62.5 ml per hour. 10 per cent dehydration. 2 litres equals 83 ml per hour. Oral 150

ml. IV 11 pm to 2 am, 400 ml. Query 500 ml given at 3 am."

Q. Doing your best -- you may have said it and I may have forgotten already -- the note emerges from what conversation or from what episode?

A. Well, again, it's very difficult for me to be absolutely certain on this, but it seems to indicate that at the time I was doing this calculation I was being given an approximate weight for Lucy because the fluids fit in with that and that I was making a quick calculation, literally on the back of a piece of paper.

Q. Yes. And it has been suggested by your counsel that the note bears some relationship with your discussion with Mr Mills.

A. That is a possibility, yes, it being on the back of my secretary's note saying, "Contact Mr Mills ".

THE CHAIRMAN: These are two sides of the same page?

A. Yes.

THE CHAIRMAN: Thank you very much. I hadn't quite picked that up, but that's helpful.

MR WOLFE: If it arose out of your telephone discussion, it would suggest that you were being told during that discussion that the fluid management of this child was the issue?

A. It was an issue, yes. That's what it would suggest,

yes.

Q. Well, leaving that note aside, what is your recollection of what you were told during the telephone conversation?

A. That Lucy had been admitted to the Erne Hospital, had been treated there, subsequently had become apnoeic, needed intubation and transferred to the Children's Hospital.

Q. And in relation to fluids?

A. Well, this would imply that there was some element of the fluids being mentioned at that time.

Q. The fact that you're running through a series of permutations in terms of different scenarios, does that suggest that you're trying to get to grips with the question, "Did this child get too much fluid?"

A. Yes.

Q. You don't allude to the type of fluid that she received on this note.

A. I don't.

Q. First of all, were you told, do you think, there was an issue in terms of what type of fluid she received?

A. I have no idea. I don't know. I don't recall any discussion about that at that time in relation to this.

Q. I want to ask you some questions about the process of accepting what you were being asked to do by the Trust. Could you explain to me what Mr Mills was asking of you

during that first conversation?

A. My recollection is that he was asking would I be willing to review the notes and help them sort out what actually had happened through the time of Lucy's admission to the Erne Hospital.

Q. And what was your response during that telephone call?

A. My recollection is that I said I was prepared to look at the notes and, if I felt that there were useful aspects of the case which I could discuss with them, then I would get in touch and say that I was willing to do that.

Q. So the process, as you understand it, was you were making no commitment to Mr Mills during that initial telephone call, the expectation was that you would receive the notes and only after a preliminary review would you offer a commitment to go forward?

A. Yes, that is my understanding of it. That's my memory of the events.

THE CHAIRMAN: Doctor, this obviously has emerged as a significant issue for you. Why would you be, at this stage and later, so cautious or conditional on the extent of the input that you would give to the review in the Erne?

A. I think it was perceived that there had been issues in terms of the treatment of the child and I did not want

to be involved beyond answering questions which might come up in terms of producing any formal medico-legal document, nor in being involved with any of the perceived official complaints procedures.

THE CHAIRMAN: Well, perhaps, as a lawyer, I can understand why there's a medico-legal framework that the Trust goes to a solicitor and engages, through a solicitor, an expert. But why might you be so reluctant to become involved to help in a complaints issue?

A. Because you require two external medical advisers, as I understand it, to the complaints procedure. I have been in the position to be a medical adviser on two complaints procedures, formal complaints procedures, and my understanding is that in all cases they would look for someone outwith their area.

THE CHAIRMAN: I see. In 2000, that would mean not just outside the Sperrin Lakeland area, but outside the Western Board area?

A. That would be correct, chairman.

THE CHAIRMAN: So it could be somebody from the Northern or the Eastern?

A. Or Southern, yes.

THE CHAIRMAN: But not someone from the Western?

A. That would be correct.

THE CHAIRMAN: Thank you.

MR WOLFE: So you had this initial conversation. Are you saying you make it clear then to Mr Mills that, as you move forward, you couldn't give him a firm commitment until you saw and considered the case notes?
A. Yes.
Q. And so what was the process, to the best of your recollection, that flowed from that?
A. My recollection is that I received photocopies of Lucy's notes from the Erne Hospital and, on receiving that, I went through them and looked at points that I could pick up on. Then my recollection is that I phoned Mr Mills again and said that I was willing to discuss aspects with representatives from the Sperrin Lakeland Trust, but that I wasn't willing to do anything other than a case note review; I would not talk to the staff, nursing staff or medical staff, nor to the parents in terms of producing any information that I was willing to give to them.
Q. So it was in the course of this second telephone discussion with Mr Mills that you laid out these constraints?
A. This is my recollection, and also saying that I wasn't going to be involved in any medico-legal events that may have come up, nor in the complaints procedure. My recollection is that it was during a second telephone

conversation with Mr Mills. You have to understand this is 13 years ago.
Q. Of course. Can I ask for your comments on this challenge to your recollection? It seems that you did have an initial conversation with Mr Mills, but on Mr Fee's account he spoke to you on or about 20 April as well and, arising out of that conversation, he sent you the notes.
A. That would appear to be true, yes. I actually have no clear recollection of speaking to Mr Fee at that time. But I accept that the telephone conversation did take place because he has the notes to prove that.
Q. Let's get a few more documents up then. 033-102-296. This is the letter which he sent to you on 21 April. You can see in the first paragraph:
"Further to my telephone conversation, I am enclosing for your information a copy of the notes of the most recent admission of the late Lucy Crawford. I would be grateful for your opinion on the range of issues discussed which would assist Dr Anderson's and my initial review of events relating to Lucy's care."
It would seem that reading between the lines, doctor, (a) you had this conversation with Mr Fee and (b) he must have been telling you that the Trust were undertaking a review and that you were being tasked

with the responsibility of assisting them.
A. Yes.
Q. That all seems fair?
A. Yes.
Q. And then they go on to set out, if you like, your brief or your terms of reference, the issues that you would address for them.
A. It does, yes.
THE CHAIRMAN: And in this context, there's a distinction between a review and a complaint; is that right? You're willing to provide a degree of assistance with the review, but this is not part of the complaints process?
A. That would be correct, chairman, yes.
MR WOLFE: The last line of the letter says:
"Can I thank you for agreeing to offer your assistance?"
A. Yes.
Q. So where this jars with your recollection, doctor, is that it is only as a result of getting this letter that you are being put in receipt of Lucy's notes?
A. Okay.
Q. And yet the letter describes your agreement to offer your assistance prior to receiving the notes.
A. Well, that could have been with a second conversation with Mr Hugh Mills, who then triggered the events which

led to Mr Fee sending me this letter and the notes. Sorry, I see what you mean, yes. Sorry, my recollection, which I actually documented in 2005, was that I had two conversations, two telephone conversations, with Mr Mills, the first being to ask me would I be willing to do anything. My recollection is I said I would only look at the notes first and then make that recommendation, agree to or not agree to taking it any further than that. That's my memory of events.
Q. What I'm saying to you is your agreement has already been procured if this letter is right prior to you receiving the notes?
A. That's what it would seem from the letter, but that is not my recollection of events.
Q. Your recollection of events is then, despite what this letter says, receiving the notes, considering them and then contacting Mr Mills again?
A. That is my memory of events.
Q. Could I put to you Mr Mills' perspective? It's contained in his police account at 116-050-009. Perhaps I'll have that up on the screen, please. It starts at the top of the page:
"Well, my involvement with Dr Quinn was to request, make the initial approach to request his participation

and I did that at the time and he didn't raise an issue with me in terms of how he would do it or what way he would do it. Subsequent to that, then Mr Fee put in writing the letter that basically identified the terms of reference. Now, Dr Quinn wouldn't have spoken to me after that and wouldn't have said to me at time the time that he wasn't doing it, as it were, in relation to a complaint or litigation, so I have no direct knowledge of what Dr Quinn claims he told the Trust."

He goes on to say that he did speak to you after the Insight programme because he was slightly concerned about the claim that you were making, and this is presumably the sweet-talking issue that we will perhaps turn to.

A. Yes.

Q. So that's Mr Mills' perspective.

A. Okay.

Q. There wasn't a second conversation so far as he can recall. You spoke to him, you were then passed over to Mr Fee, you reached an agreement to assist, you got the papers and then contact thereafter was with, as we know, Mr Fee and Dr Kelly.

A. Yes.

Q. Let me ask you about the constraints. In terms of how you were going to do the work for the Trust, what did

you have in mind?

A. That I would assist them in reviewing what had been done during the time that Lucy was in the Erne Hospital for the purposes of their review, their internal review.

Q. And how were you going to deliver your conclusions to them?

A. By talking to representatives from the Trust in an oral conversation and I did not intend to write a medico-legal report for them.

Q. Yes.

A. You know, I have certainty that I did say that there were constraints, and my memory was that the constraints were put to Mr Mills, but that is my memory. I can't say other than what I remember.

Q. Just so we're clear and so that Mr Mills is clear, the constraints that you say you mentioned to Mr Mills during the second telephone conversation were that you wouldn't speak to the staff; is that right?

A. That's correct.

Q. You wouldn't speak to the family?

A. That is correct.

Q. And you weren't to be getting involved in a complaints process?

A. That's correct.

Q. You wouldn't be getting involved in providing a report

that could be described as a medico-legal report?

A. That is correct. And in fairness to the Trust, I was not involved in the complaints procedure, nor in the medico-legal case, which took place sometime later, nor was I requested to go to the Coroner's Court.

Q. Could I have up on the screen what you have said to the police in 2005? 115-041-002. Starting towards the top of the page, this is the point you made, I think, a moment or two ago about saying that you made it clear in 2005 about these conversations. Your recollection is that you telephoned Mr Mills and said:

"Whilst I would review the records and discuss them with representatives of the Trust, I was not willing to become involved in preparing a report for complaints or for medico-legal purposes. I made it clear to him that I would not interview the doctors involved, the nurses, or the family, and if I accepted the papers, it was only with a view to reviewing the records and discussing the issues which occurred to me as I read them. My recollection of events is that I recommended that they obtain an opinion from a consultant paediatrician from outside the Western Board area for such purposes."

Could I just pick up on that last phrasing? For which purposes were you inviting them or recommending to them that they should consider someone else?

A. If there were formal complaints procedures brought against the board or, indeed, medico-legal proceedings.

Q. But ultimately, doctor, I suppose much of what we're talking about in terms of these constraints is rendered somewhat academic in the sense that, as we understand it, you weren't being asked to carry out any of these tasks.

A. Yes.

Q. You weren't being asked for a medico-legal report.

A. Well, that has been confirmed, both I think in evidence to this inquiry and, on Wednesday, Dr Kelly was here and he stated that they weren't asking for a medico-legal report, and he also reported that I had said at the meeting with him that I was not producing one.

Q. Yes.

THE CHAIRMAN: It's also confirmed by the fact that they went to Dr Jenkins for the medico-legal report, which I think is what Mr Wolfe is referring to, the reality of what happened supports and is consistent with what you have said to us.

A. Thank you, chairman. Yes. I haven't been asked, but my recollection is that the doctor I advised that they could use was Dr John Jenkins. Dr John Jenkins was subsequently used. I don't know if that's coincidence or was triggered by anything that I said.

MR WOLFE: Apart from the debate about who said what to whom and at what time about these constraints, about which there seems to be a factual conflict, what do you say is the significance of this?
A. That I anticipated there would be formal complaints against the Trust and that there potentially would be medico-legal consequences. As it turned out, my assumptions would have been correct.
THE CHAIRMAN: Sorry, at what point did you anticipate complaints?
A. At the time that -- very early on in this process.
THE CHAIRMAN: Is that because it was apparent that things had been done badly within the hospital? Sorry, some things had been done badly within the hospital?
A. Yes.
MR WOLFE: The mere fact, doctor that you weren't being asked for a medico-legal report or to engage in the complaints process doesn't imply that your participation in the process of assisting the Trust should be any less rigorous or objective; isn't that right?
A. That's correct, absolutely correct.
Q. Because you had agreed to provide a view, not a medico-legal view, and your report, you would say, wasn't set out in those terms, but nevertheless your duty as a doctor was to provide an accurate, fair and

objective analysis to the best of your ability?
A. That's absolutely correct.
Q. In terms of the work then that you were to do, I think we started off asking about that, you were to receive the notes and did receive the notes, and you anticipated that you would read them and give an oral view?
A. That is correct.
Q. A verbal view?
A. That is correct.
Q. And could I ask you, why were you so adamant that you wouldn't speak to the staff?
A. I limited what I was prepared to do to the notes because what I was prepared to do was a case note review. If they were holding an internal inquiry, they had access to the staff to talk to them, both the medical and nursing staff, and also, obviously, the family.
Q. Yes. I think your conclusion to your written report -- and we can look at it later this afternoon -- reflects upon the fact that it is difficult to reach decisive conclusions here because -- I'm paraphrasing here -- you hadn't seen the child; you weren't there at the time. It may not mention that you didn't have access to the doctors, but can I ask you this: the fact that you didn't have access to the medical staff or chose not to have access to the medical staff, did that inhibit the

work that you were carrying out?
THE CHAIRMAN: Sorry, "inhibit" as in have an adverse impact on?
MR WOLFE: I may follow up with that.
THE CHAIRMAN: Okay.
MR WOLFE: Did it inhibit what you were able to do for the Trust?
A. It meant that there was first-hand information that was not available to me, yes.
Q. And had that the potential then, as the chairman suggests, to adversely affect the quality of the work that you were doing or the completeness of the opinion that you could form?
A. Yes, it did reduce what I could do, but I'd specified that that's what I was prepared to do and, if the Trust were going to accept that, that was fine. And I have said, as you point out, in my written summary that I have said there are difficulties because I did not see the child and I was not there at the time to make assessments, and it was purely from medical and nursing notes, which I think have been criticised in other areas in the inquiry. So I did say in my final paragraph that obviously there were constraints, that there were difficulties with that, yes.
THE CHAIRMAN: Did the fact that you weren't willing, for

the reasons you have given, to meet the staff, did that mean that you should not receive statements from them?
A. I'm not sure how to answer that, chairman. I didn't ask for any statements from them.
THE CHAIRMAN: You now know that there were statements which were obtained. Were you offered those but declined to accept them or were you not offered them?
A. I was not offered them. What I was offered were the photocopies of the notes. I've got the photocopies of the notes which I was sent, in fact in the original envelope in which they were sent to me.
THE CHAIRMAN: Thank you.
MR WOLFE: Apart from what you have said in the concluding paragraph to your review about the disadvantages that flow from approaching the review in this way, leaving these uncertainties, was that something that was outlined by you or spoken about by you to those who were retaining you for this task?
A. During my meeting with them, I raised a lot of questions and, in fact, in my written summary, I actually asked a lot of questions, including questions about the volumes of fluid given, which we've had -- which the inquiry's had discussion about recently. So I was probably asking almost as many questions as I was answering.

Q. One solution to the constraint that you had put in place would be for you to ask questions of, for example, Mr Fee, saying, "In order for me to reach a view on this, I require you to clarify such-and-such a point or source some particular piece of information".
A. Yes, I did ask Mr Fee to clarify points, in particular in relation to the fluid volumes.
Q. Well, we'll look at that after lunch. But just to nail down the approach, you recognise that that was an approach that was available to you, that Mr Fee could clarify things for you?
A. Well, that was the purpose, I thought, of the meeting with Dr Kelly and Mr Fee in my office, to get clarification of some points and see if I could take things forward from that knowledge.
Q. But in terms of the report that you produced, you produced a report dated, I think, 22 June, the day after the meeting.
A. Yes.
Q. If you're telling us that at that meeting you asked for certain clarifications -- and we'll look at what they might have been after lunch. But in the scheme of things it doesn't seem that you were allowing them space or opportunity to come back to you with the clarification before you finalised your report; is that

fair?
A. As far as I was concerned, I had agreed to a meeting with the representatives, and that took place.
Q. Yes.
A. At that meeting, I was able to ask questions. I produced a summary of some of what was discussed in the meeting and, as far as I was concerned, that was the end of the matter. I did not ask for anything further to be sent to me so that I could make further comments.
Q. So you were posing, if you like, questions or challenges for further information that you weren't going to receive?
A. Yes.
Q. That was something for the Trust to take up?
A. Yes.
Q. So in that sense you're saying your report was merely one that was highlighting issues, at least in part, rather than attempting to provide definite conclusions?
A. It was highlighting issues and I felt that the information in the chart, and indeed subsequently I found other things which would have been used, but certainly what was in the chart and at the meeting did not allow me to come to absolutely definite conclusions, for example, as to what was happening in and around 3 am and beyond.

MR WOLFE: Sir, could we cover one further short area before rising?
THE CHAIRMAN: Yes, and we'll change the break from 1.30 to 2.15 if you want to finish this.
MR WOLFE: It's a question about your independence, doctor. You, as we identified earlier, had spent some time in the late 80s into the early 90s providing, if you like, a satellite facility to the Erne Hospital by coming once a week or once a month or whatever the --
A. Yes, that is correct.
Q. So in that sense, you had worked for the organisation, albeit that you were employed at Altnagelvin.
A. I was employed by the Western Health Board, which covered the whole of the Western Health Board, including Omagh and Enniskillen, and Altnagelvin and the Limavady Hospital.
Q. Could we have up on screen, please, WS279/1, at page 5? Here we ask you a series of questions about your knowledge of various individuals associated with Lucy's case. You'll remember us asking you that?
A. Yes, I do.
Q. Mr Mills. He was somebody who was known to you, both professionally and socially; is that correct?
A. More professionally than socially. We had occasional meetings through the Prehen Dinghy Sailing Club. He had

worked as an administrative officer in Altnagelvin at the same time I was there at a consultant paediatrician.
Q. He tells us in his witness statement that he worked with you and it was arising out of his working with you that he had confidence in your clinical knowledge.
A. Fine.
Q. Mr Fee, you had no previous contact or knowledge of him?
A. That's correct.
Q. Dr Kelly, you would have known him as a member of the Area Medical Staff Committee, which, to the best of your knowledge and recollection, met once a year?
A. About that, yes.
Q. And was that the extent of your knowledge of him?
A. Yes. Other than he worked as a geriatrician down in the Erne Hospital.
Q. To what extent would you have engaged with him on the Medical Staff Committee?
A. No more than with any other member of the medical staff. The Area Medical Staff Committee was for the physicians and paediatricians to get together once a year and discuss mutually relevant aspects to patient care throughout the area.
Q. How many clinicians attended that committee?
A. It was a fairly small committee, attended by regulars from Omagh, Enniskillen and Altnagelvin. It would be

quite a small number.
Q. Are we talking in the area of ten or more?
A. It wouldn't be any more than that that actually attended.
Q. And over what period of years would Dr Kelly and yourselves have been stationed on this committee?
A. It functioned potentially up to when the trusts were formed in the Western Board.
Q. In about 1996 or so?
A. I'm sorry, I don't know.
THE CHAIRMAN: I think it's 1993.
MR WOLFE: Dr Anderson, you say of him that you may have met him in South Africa when you both worked as clinicians in the city?
A. I met a Dr Trevor Anderson in Durban maybe on one or two occasions at social events, back between 1975 and 1977. I had no knowledge of what happened to him after that, and certainly had not met him at any stage after that.
Q. Was he a Northern Irish obstetrician?
A. Yes. So that's why I put I may have met Dr Anderson. If it's a Dr Trevor Anderson who's an obstetrician who was in South Africa at that time, I probably met him at two or three social events.
Q. He tells us that he worked at the McCord Zulu Hospital.
A. That would be right, yes. So it's the same person.

Q. Dr O'Donohoe, you say of him that you had met him at paediatric meetings occasionally, particularly at the Ulster Paediatric Society?
A. That would be correct.
Q. And how often would that society have met at that time?
A. I think we ran about three to four meetings a year. I wouldn't have attended them all and Dr O'Donohoe wouldn't have attended them all, so it would be on a random intermittent basis that we came across each other at the meetings.
Q. And you had no knowledge of doctors Malik or Auterson?
A. That's correct.
Q. You tell us that when asked to perform this role by Mr Mills, you didn't disclose your knowledge of these various persons to the Trust. Clearly, you wouldn't need to disclose to Mr Mills that you knew him because that's self-evident.
A. Yes.
Q. But did you give any thought to whether, given your employment or work within this organisation called the Erne Hospital, and given your knowledge of some of the protagonists, that this could give rise to a perception of a conflict of interest or a perception of a bias?
A. There was no way any contact with any of them was going to bias me in terms of what I said.

Q. My question was: did you give any consideration to that issue?
A. Well, I thought I'd answered the question, but no, I didn't give any consideration to it. As I said, I would not be biased or prejudiced because of knowledge -- the knowledge I had or the contact I'd had with any of the people involved.
Q. Did you know any of the nursing staff that you came across on the papers?
A. To my great shame, I cannot remember the names of many of the nursing staff. The only familiar name would be Mrs Millar, and if she had been a sister in the children's ward in Tyrone County Hospital, if that's the same Mrs Millar, I would have had knowledge, because if it's the same person I did ward rounds in the Tyrone County Hospital with her.
Q. Was the fact that you had knowledge of some of these people and knew them, at least to the extent that you describe, a factor which influenced you in the constraints that you imposed around your involvement?
A. No, it wasn't.
THE CHAIRMAN: Hopefully 45 minutes will be enough, doctor, to get some lunch. We'll start again at 2.15.
(1.30 pm)
(The Short Adjournment)

(2.15 pm)
MR WOLFE: Doctor, just one point of clarification. When you were working in the late 80s/early 90s and coming to the Erne to carry out some satellite work, as I ineloquently described it, your employment contract was with the Western Board; is that correct?
A. Yes. My initial contract was as a consultant paediatrician with a special interest in the newborn with the Western Area Board.
Q. Whereas, at the time of performing these tasks for the Erne Hospital, Altnagelvin had achieved trust status so that you were no longer employed by the Western Board; is that correct?
A. Well, I guess my contract went over to the Altnagelvin Hospitals Trust, yes.
Q. Albeit that both hospitals -- that is the Erne Hospital, Altnagelvin Hospital, Sperrin Lakeland Trust, Altnagelvin Hospitals Trust -- all existed within this small geographical area under the commissioning auspices of the Western Health and Social Services Board?
A. Yes.
Q. We have reached a stage in the sequence, doctor, where you have accepted the brief from the Erne Hospital, you've explained the caveats that came with your approach to it.

A. Yes.
Q. And we've looked a little at the methodology by which you would be approaching your work. Can I ask you in terms of your expertise or experience to do the work that you were going to be asked to do, the tasks that were set out for you in the brief? That was the letter of 21 April, you'll recall.
A. Yes.
Q. I'll perhaps put those on the screen again for you. 033-102-296. You realised that you were going to be asked to comment on the significance of the type and volume of fluid administered to a child.
A. Yes.
Q. That is something with which you would have enjoyed great familiarity at this point in your career?
A. Yes, I would have dealt with a lot of children, yes.
Q. And the likely cause of the cerebral oedema, was that within your comfort zone?
A. Yes.
Q. And a question about electrolyte balance, what could have contributed to it and specific factors were suggested in a non-exhaustive list. Again, is that something you felt confident to deal with?
A. Yes.
Q. You've told us in your witness statement, when we asked

you about your experience of fluid management, that as a junior doctor, the approach in terms of your education was to receive advice from more senior doctors and through your own reading.
A. Yes.
Q. You then, if you like, got to grips with this subject matter.
A. Yes, plus everyday clinical practice.
Q. Of course. You cited a familiarity with some of the, if you like, the classic texts for paediatricians, such as Nelson and Forfar & Arneil.
A. Yes, Nelson is the American book and Forfar & Arneil was the UK tome at that time, the reference book.
Q. Standard paediatric textbook?
A. Absolutely. I would have been familiar with other textbooks because I continually bought texts on different subjects within the specialty.
Q. And you had a familiarity with hyponatraemia, hyponatraemia in the sick child?
A. Yes, I would have seen a number of children who presented with low sodiums with hyponatraemia.
Q. I want to take you to the various steps that you undertook upon receiving the materials from Mr Fee. I don't wish to go back to whether or not there were further telephone calls with Mr Mills. We've dealt with

that. You were supplied with photocopies of the child's Erne Hospital notes; isn't that correct?
A. That's correct.
Q. And in terms of any other materials, there was nothing else before you?
A. There was nothing else other than a letter from Mr Fee, which was recently on the screen. The extent of the notes which were sent to me, I have the originals with my solicitor and barrister here today.
Q. You kindly provided with your witness statement, Dr Quinn, some notes. I take it that's what you're referring to? You have the originals with you today, but some notes setting out your original thoughts; is that right?
A. What I'm talking about is the photocopy of the Erne Hospital notes of Lucy which were sent to me. That's the only thing that was sent to me. I have got the originals of those in the envelope in which they were sent to me with my solicitor and barrister. I also have the originals of my handwritten notes, contemporaneously with the time I was reviewing the clinical notes.
Q. And for reference purposes we have at WS279/1, page 33 through to page 35, some notes which I would like to ask you about. Could we have those up on the screen,

please? WS279/1, page 33, 34 and 35. I'm just going to ask you to glance at them because there is a typed version. I just want to help you to orientate yourself and tell us what you think these notes are.
A. These are notes that I made whilst going through the Erne Hospital -- copy of the Erne Hospital notes. I made my own notes as I went through, pulling out pieces of information and noting them down so that I could review the summary for the purposes of looking at all the information available to me.
Q. So this was helping you to get a sense of the case?
A. And the sequence of events and investigations and treatments.
Q. Yes. Just confirm for us as we go, are both of those pages arising out of the same exercise of going through the notes and jotting down, in summary fashion, perhaps, the relevant data?
A. Yes, they are.
Q. The next page, please, 35. That's a further page. Is that part of that same exercise?
A. That would be the next step, if you like, in extracting information and maybe making some comments and looking at possibilities, yes.
Q. And finally in this sequence, a note at 36.
A. I'm sorry, what was the question?

Q. It hasn't come up yet, I don't think.
THE CHAIRMAN: "Is this part of the same sequence?" I think is the question. You'll see it come up at the moment. There it is on the left-hand side of the screen.
A. Yes, that, I think, would be the next stage coming on from the three we've seen.
THE CHAIRMAN: To the best of your recollection, would these four pages have been prepared in the same sitting as you went through the notes or would the second page -- which is about just about half a page or a bit less -- does that indicate that you left off at that point and then came back on these last two pages later?
A. I'm not certain of that, chairman. I would have written these pretty shortly after the other two.
THE CHAIRMAN: So they're round about the same time?
A. Yes.
MR WOLFE: You seem to talk about three stages in your note making. The first stage seems to have been the preliminary stage of reading through the notes and extracting the material and trying to make out a chronology.
A. Yes.
Q. The second stage, I think you might have said that that involves noting up a few questions and a few issues for yourself.

A. Yes.
Q. And the third stage was what?
A. Well, the second and third stage -- I don't know if you need to say "stages" -- the first stage is going through and noting the data from the chart and the next stage is trying to make sense of what is in the chart and then putting my thoughts down in terms of what is of most relevance.
Q. Yes. The page on the left-hand side, did you use that for any purpose other than for yourself, for your own guidance?
A. No, that would have been -- my recollection would be these would all be in front of me whilst discussing the cases with, in particular, Dr Kelly and Mr Fee.
Q. Right. Very well. It'll help us all, I think, if we -- and I have to say, I haven't performed the exercise of comparing your handwritten note to a typewritten note. But we'll process on the basis that the typewritten note is a direct correlation.
A. Yes.
Q. Can we go to 279/2, page 6? That should replicate the first of the handwritten pages.
A. Yes.
Q. Is there anything, doctor that you want to identify on that page as being significant in terms of what you were

extracting from the notes?
A. There's really, you know -- I think what I have extracted I have extracted. I don't know that I can go through each page and say what I have taken out of that. It will have been written down. I think that's an accurate transcript of what I wrote.
Q. Yes. As we can see at the bottom of the page, you're setting out something of a chronology. One of the things that has caught our attention is the change in the fluids sometime after 3 o'clock. If we could have the next page up as well, please. You have remarked in your final report, doctor, that:
"The sequence seemed to have been that the medical team recognised an electrolyte problem and then started to use normal saline."
A. Yes. I think I said that.
Q. Yes. Is that reflected in this chronology?
A. It says:
"03.15. 0.9 per cent saline put in and run freely into line."
That "run freely into the line" bit is in the nursing notes, so that would have been extracted from that.
Q. Yes. The point I'm making to you is that in your report, ultimately, you documented a recognition that

the electrolytes were now problematic, 127 --
A. Yes.
Q. -- and that then became the trigger for the normal saline to go in.
A. I made the assumption that the bloods were taken close to the start of this event. There is no time written on the result which documents that the sodium was 127. There is a time written on the one that documents 137. So I assumed that in and around that time, they recognised that the sodium was low and they then changed to normal saline. But that is my assumption that the electrolytes were -- the blood was taken to measure the electrolytes in and around that time -- probably early, was my impression or were my thoughts at that time in this collapse -- they were sent off to the lab and the result got. That is my assumption. That's why I said what I said.
Q. Was it something you ever sought clarification upon?
A. Well, no, I didn't ask at what stage the bloods were taken nor at what stage the electrolyte results came back. I didn't.
Q. Can you help us with one thing? We now know through Dr O'Donohoe that the proper sequence was he arrived into the hospital, by which stage a significant amount of normal saline had been run in.

A. Yes.
Q. He claims that the bag was almost run through or empty, close to empty, at which point and only upon his arrival were bloods taken for electrolytes.
A. Yes.
Q. Would that have been a significant factor to have known at the time of your report?
A. Well, I can't argue with that sequence. As I say, I made the assumption that the bloods were taken before saline was run in and that's what I based what I wrote about that.
Q. Yes, but in terms of analysing the extent to which there had been a drop from normal serum sodium to something that was potentially going to cause a difficulty for this child, would that sequence, ironed out to be factually accurate, have assisted you?
A. Yes, it would. My assumption was that the lowest sodium -- and indeed the lowest sodium recorded in the notes is 127.
Q. That's right.
A. There's nothing else recorded below that.
Q. Yes.
A. And my assumption, as I say, was that that's what the sodium was at the time of the collapse as opposed to at the time of what -- you're saying most of a bag of

normal saline was run into the child.
Q. And the running-in of a bag of saline prior to blood being taken for repeat electrolytes, what would be the significance of that in your view?
A. It's likely to make the sodium level higher when it is measured.
Q. Yes. Looking at these notes, was there anything on the materials that you've summarised here to indicate the nature of the fluid regime which the clinicians had intended for the child?
A. Not on these sheets, no.
Q. Could we move then just to page 8, please? This completes the chronology for the child's care at the Erne; isn't that right?
A. Yes.
Q. Is there anything of significance that catches your eye from that?
A. On the right-hand page?
Q. Yes.
A. I'm stating that the child was transferred to the ICU in the Erne, that she was ventilated and there were no spontaneous respirations, pupils fixed and dilated, and she was hypothermic.
Q. The administration of mannitol, what would have been the significance of that?

A. I presumed and presume that the doctors felt there was a risk that this girl had -- well, there's a risk of her having or developing cerebral oedema. Mannitol is given to reduce cerebral oedema, cerebral swelling.
Q. And of course, ultimately, as you can see with the last entry:
"The post-mortem return indicated a rotavirus, gastroenteritis, cerebral oedema."
A. Yes. That would have been written in the notes.
Q. That's right. Moving on to the next page, page 9. I think this is the page that you described as containing some questions for yourself, some of the issues that occurred to you.
A. Yes.
Q. Is there anything of significance you wish to draw to our attention?
A. Well, at the start of the page here it shows the fluids which were recorded as having been given. The 50 ml of juice and 100 ml of Dioralyte, which is an oral rehydration fluid, and the fact that she had 100 ml apparently in each of the hours from 11 o'clock through beyond that -- I think these are the times that are recorded on the left.
Q. That's right.
A. So it looked to me and looks to me from that that

what was recorded in the fluid chart was that she'd had 400 ml of N/5 saline -- I don't state N/5 saline here, but I would have known that from the notes.
Q. Yes.
A. She had passed a small amount of urine and had been noted to be damp, so her kidneys were working to an extent at that time. From admission until the episode of collapse around 3, it was seven hours, so she'd had 550 ml over a seven hour period, which works out at 80 ml per hour. I was doing that to see overall the rate of fluids that she was getting over the time that she was -- from admission. Because, after all, she didn't receive some fluids for a period of time and it would be that she is still losing fluids if she has the gastroenteritis into her bowel at that time.
Q. Yes.
A. I didn't in any way mean to reduce the impact of this by saying she was only having 80 ml per hour because I have recorded in my report, my summary report, indeed that she had 100 ml per hour. That's clearly stated.
Q. Yes.
A. So I was not trying to in any way belittle the amount of fluids that she was given by doing that. I know there has been criticism of that.
Q. Let me come to that issue in due course. I'm anxious

just to get an explanation for this part of the paper at this time. You go on to raise a number of questions, but before I come to that, you would have appreciated, would you, doctor, that the child had not received the fluids which the prescribing consultant had indicated he had intended for her?

A. Well, I think what was written in terms of what was intended was after what was actually written in the fluid chart.

Q. That's right. There was a note from Dr O'Donohoe that you will recall where he noted an intervention by Dr Peter Crean from the Royal Hospital.

A. Yes.

Q. And he then set out, if you like, his version of how the fluids had been prescribed on the evening of 12 April.

A. I was dealing with the reality, which was that it was fifth-normal saline, Solution No. 18 --

Q. Yes.

A. -- but even at 100 ml per hour for 4 hours and no prescription written for that.

Q. But it wasn't lost on you, doctor that you had in front of you, through the vehicle of the notes, a view being expressed by the consultant that this child had not received what he had intended for her?

A. Yes.

Q. And was there any significance in that for you?

A. As I said, I was dealing with what had actually happened to see in what way that could have influenced Lucy's well-being. I have not made any comment about what Dr O'Donohoe wrote at that time. That's correct.

Q. You then raise what I take to be some questions:

"Why floppy in the first place?"

A. Yes.

Q. Just take us through those, please.

A. Well, I think in the general practitioner's notes it mentioned that she had been lethargic and perhaps floppy. This was certainly an observation that her parents had made, in particular her mum had made, that she was unduly floppy, and can indicate that she was iller than was perceived on admission to the hospital. Was the episode a fit or coning? There's really inadequate description of the event to let me be absolutely definitive as to what the event was in and around 3 am and after that. Was it an epileptic fit, a tonic-clonic seizure, or indeed had she shown signs that she had cerebral oedema to the extent that she coned, i.e. pushed her brain down and caused irreparable damage to vital centres?

THE CHAIRMAN: That's the point at which Mrs Crawford might have been able to help because she was there at the

time?

A. Indeed, chairman. In September of this year, through the inquiry, I had the first chance to read what Mrs Crawford said. I found it to be a very moving and troubling document that Mrs Crawford had written in terms of what Lucy was actually like and what happened in and around 3 o'clock. I don't know if I'm allowed to talk about it at this stage or not because it wasn't in front of me at that time. I didn't see it until September --

MR WOLFE: You were raising a question, I think is the main point, or raising as an issue -- let's put it in those terms --

A. I was raising as an issue that there was insufficient description of what went on to tell me at that time what was happening and I have documented that here. I discussed it with Dr Kelly and Mr Fee and I have included it in my written summary.

Q. And then you posed a question about apnoea and wondered whether that was in relation to the diazepam?

A. Apnoea is the stopping breathing. Intravenous diazepam is well recognised as causing respiratory arrest in a number of individuals who respond to it like that, and indeed I've seen perhaps two or three children who reacted very badly to intravenous diazepam by way of

stopping breathing and requiring respiratory support. Because of the risk of apnoea, I enquired from one of the drug reps who supplied a particular preparation of rectal diazepam, was it possible that rectal diazepam could cause apnoea? And the answer that I got -- this would be quite a long time ago, maybe back in the 1980s. The answer that I got at that time was, yes, it could cause apnoea, but it was very unusual. You've got to remember that rectal diazepam, when given -- within 3 to 4 minutes of giving rectal diazepam, the blood levels will be therapeutic, in other words they will be quite high, sufficient in many cases to stop seizures. That information from the drug rep caused me to change my practice in terms of the use of rectal diazepam, which we would have given to parents, for example who had recurring seizures, particularly recurring febrile seizures. At that time, what I would do if I was prescribing the rectal diazepam, for example to someone at outpatients or indeed someone who was on a ward with recurring episodes, was to give them a test dose of the rectal diazepam, showing the parents or carers how to give the preparation and noting that there wasn't an adverse reaction. If there was no adverse reaction, which indeed was 100 per cent the case, then I was more confident to prescribe rectal diazepam at home. So

diazepam is recognised as stopping breathing in certain circumstances.
Q. So you highlighted that as an issue perhaps to be followed up?
A. Yes.
Q. Resuscitation. The child suffered a respiratory arrest, you might have divined from the notes, at or about 3.15?
A. I think so, yes.
Q. And resuscitation was then brought to bear and you had a concern or a consideration as to whether it was adequate.
A. Yes. If the child has a seizure and is hypoxic for a period of time, that is brain damaging and indeed, if it's not rectified, may cause the child to stop breathing. Indeed, all children stop breathing for a period of time with a tonic-clonic seizure, but some will have more persistent apnoea after a seizure. So if the resuscitation was inadequate, then the child could have suffered as a consequence of that and had irreversible brain damage inflicted on them at that time.
Q. The next line, doctor, raises the point about the 500 ml of normal saline.
A. Yes.
Q. And what were you saying about that, what were you

thinking about that?
A. If 500 ml was given, that was grossly excessive. I did a calculation of what Lucy's total blood volume would be, based on her weight, and the total blood volume based on her weight was -- would be about 720 ml. So if you're running 500 ml into that in addition to whatever fluids were given previously and were retained, it would be massively excessive.
THE CHAIRMAN: And it was described to me that if a child is hyponatraemic and is given an excess of normal saline, that that in itself can cause more damage; is that right? In other words --
A. Any child that you ran in that percentage of its blood volume over a very short period of time will have difficulty, initially cardiovascularly, because you're expanding the volume immensely and you're putting tremendous strain on the right side of the heart. Running it into a sick child is even worse.
MR WOLFE: I think at some point you came up with a calculation, doctor, correct me if I'm wrong, that the appropriate dose to administer in a child who is suspected of being in circulatory shock would be something in the region of 20 ml per kilogram, which in this case would have been 180 ml.
A. That's correct.

Q. Would that be given as a bolus?
A. It's given over a period of time such as 20 to 40 minutes, 20 to 30 minutes.
Q. Right. And so as I think you illustrated by your expression there, 500 ml would be just completely beyond the pale?
A. Yes.
Q. Just to illustrate this for us, if an otherwise well child, just a child suffering from some shock was to get 500 ml in and was of about that weight, 9 kilograms, what would be your concerns in that situation?
A. If it was given quickly, then it will cause right-sided heart problems and could tip the child into right-sided heart failure. If it's given over a longer period of time, the child will probably deal with it and the kidneys will pee it out.
Q. I take it, doctor, correct me if I'm wrong, that you lifted the 500 ml figure from the fluid balance chart or the entry that was made by Dr Malik in the clinical notes?
A. From both those and also from the nursing notes. It was in the nursing notes that it said "500 ml of normal saline run in freely". Dr Malik, as I recall, said, "500 ml given over a period of an hour", or words to that effect.

Q. Yes.
A. That's why I questioned very much Mr Fee and Dr Kelly at the time of the meeting as to how much saline had actually been given, because if it was all given, that was quite the wrong thing to do.
Q. We'll obviously come to that meaning just now. But finishing this page, please, you say something about urinary output and there's obviously a consideration then of whether there was renal issues that might have been relevant here.
A. Yes. Dehydration. If you're dehydrated and you have small blood volume, the kidneys will not pass urine, they'll retain it, and if you have other renal problems -- and I put primary or secondary renal failure from whatever cause, primary, secondary -- if your kidneys aren't workings, you don't deal with fluids as well, you don't deal with fluids -- particularly excessive fluids that are given to you -- well. There are articles that say that children normally deal with more volume than they should have been given providing their kidneys are working. I think that was in the APLS book which I have referred to in some of my evidence.
Q. At the bottom of the page, doctor, you make the point about the IV fluid chart not having the amount per hour of fluids prescribed. There was nothing to that effect

written into it --
A. Correct.
Q. -- which was clearly a -- I describe it inelegantly as an administration problem, but it was a prescribing issue so far as you were concerned.
A. You should write exactly the type of fluid, the volume of fluid, and the rate it is to be given and even the total volume that is to be given.
Q. You arrive at a diagnosis of cerebral oedema and you're querying encephalitis and you're querying oedema. What does that note mean? What is the tension there that you appear to be describing?
A. There's more than one cause of cerebral oedema. It can vary from trauma to a haemorrhage with oedema around it to infective causes like encephalitis where the brain is infected, particularly viral infections. It can occur after hypoxic damage, for example -- as I've said, if the resuscitation is inadequate and the child is allowed to become hypoxic, then you can get brain oedema resulting from that. And indeed, going back a little bit, the mannitol would be given for oedema in that circumstance. Where there's a prolonged seizure, for example, we would sometimes give that as a preventative.
There are the other obvious causes, that the fluids and type are incorrect.

Q. Sorry, I didn't catch the last bit.
A. The volume of fluid and the type of fluid given, if they're incorrect -- in other words, electrolyte and fluid problems can obviously cause cerebral oedema. Back in my early training, we would have been seeing kids with hypernatraemia, in other words very high sodium levels, and as a student and indeed as a preregistration house officer and in my early paediatric career, we would have seen those as a result of -- it was feeding problems with inappropriately high sodium content. Some of the proprietary milks and doorstep milk had too much salt in them. That could have precipitated hypernatraemia, and one of the things that we were told very much to avoid was giving dilute solutions to them. You might think it's logical to give a dilute solution to someone who has a very high sodium, but in fact what happened was, if you did, they got cerebral oedema very rapidly and further damaged themselves.
Q. So there was a need to bring the hypernatraemia down slowly and in a controlled fashion?
A. Very much so. You started off with normal saline and you only corrected the deficit over a period of a couple of days. So I was aware very much of the dangers of dilute solutions before I was a doctor.

Q. In that context very much aware of the risks of causing sodium to fall too quickly?
A. The type of fluid that -- fluid being too dilute and, certainly in the textbooks and teaching, we would have been told that if you let the sodium drop too rapidly, that's a problem. But I, at the same time, have to say that I have not seen peer-reviewed papers which tell you how rapidly this has to be to cause problems invariably over a period of time. I don't know that -- there may well be a paper which tells that, but I'm not aware of it. In other words, I don't know what rate of fall is the most dangerous in terms of producing cerebral oedema.
Q. Could we move to the next page, the last page in this sequence? Just before looking at this -- and if I picked up my learned friend Mr Counsell incorrectly he'll no doubt tell me -- it has been suggested on your behalf that this page was the page that you had with you and the issues contained in it are the issues that you had intended to bring to the attention of Mr Fee and Dr Kelly at the meeting on 21 June.
A. Yes.
Q. That's not how you have so far described it. I think you have said that you would have had all these papers with you whenever you were talking to representatives of

the Trust.
A. Yes.
Q. Can you help us just on the purpose of this?
A. It's highly likely I had all the pages. This does document -- yes, it does document the things that I wanted to discuss at the meeting. There may be other things that were -- indeed there were other things that were discussed at the meeting other than on this.
Q. Maybe then we'll turn to this document when we look at the meeting on 21 June. Before doing that, can I ask you about the telephone conversation that you had with Mr Fee on 2 May 2000?
Just before doing that, arising out of your consideration of the notes -- and we've gone through the product, if you like, of that consideration or that analysis -- what were you thinking in terms of the conclusions that could be drawn about the management of this child prior to speaking to Mr Fee on 2 May?
A. I'm sorry, could you repeat that?
Q. You appear to have gone through this very deliberate and detailed process of looking at the notes, isolating issues, raising questions for yourself, your mind was obviously turning these points over. Were you in a position to reach any conclusions about the management of the child, how well she was managed, prior to

speaking to Mr Fee on 2 May?
A. Well, certainly in terms of the volumes of fluids that were given, I had concerns. I stated that and that has been, I think, backed up by others.
Q. So in terms of mismanagement of the child, the thing that stood out for you was volumes of fluid?
A. Volumes of fluid and potentially the management of this so-called seizure, the episode of collapse in and around 3 o'clock.
Q. Okay. So in terms of the fluid side of it then, so far as you were concerned, volumes of fluid, both pre-seizure and post-seizure?
A. Yes.
Q. What about the type of fluid? Did you have any concerns about that?
A. Well, I know there has been criticism and on this page that's up in front of me it says "Fluids: N/5 = appropriate". Perhaps the word "appropriate" is not appropriate.
I'll tell you why I said that: I felt that the doctors in the Erne had underestimated how sick Lucy was, and I say that because there are very few notes actually on admission. They have not stated that she looked sick, and that would be one of the first things that I would write if I'm assessing a child, "Looks

sick", or" Does not look sick". They have not outlined the degree of dehydration. They made a diagnosis of viral infection. There was no treatment started and there seemed to be no rush to put up an intravenous infusion. In fact, it was some three-and-a-half, four hours after admission -- is that right? -- that she actually had a drip put up.
Q. That's right.
A. So my thought was they are not seeing this as a sick child who needs resuscitation; they're seeing her as a child who needs to have intravenous fluids put up, ultimately. And at that time, in 2000, as a maintenance fluid and indeed for mild dehydration -- and by that I mean less than 5 per cent -- fifth-normal solution was the solution they were going to pull out of the cupboard and put up. So that is the reason that I put "appropriate".
Their assessment may have been incorrect, in other words Lucy may have been sicker, and if that was the case then a different fluid should have been used. That would have been either half-normal or normal saline.
But I based this "appropriate" term, which is maybe inappropriate, on the perception that the doctors in the Erne felt she wasn't very sick, and therefore at that time were going to use fifth-normal saline for

maintenance or mild dehydration.
THE CHAIRMAN: First of all, do you think that was a wrong perception, or do you know?
A. From the notes, there's very little to say how sick she was, but I'm aware or have been made aware since, through papers that have been given to me through the inquiry, in particular -- I don't know if I'm allowed to even quote the paper that was submitted by Mrs Crawford to the coroner.
THE CHAIRMAN: Yes. Well, it's part of the coroner's papers. I appreciate your sensitivity in referring to it, but what is it that you find significant about that?
A. I'm allowed to say?
THE CHAIRMAN: Yes.
A. I think Lucy was much sicker than comes out in the notes, and mum has said early on in her submission that she'd asked the doctors to look at Lucy's eyes because she felt there was something wrong with them, and I think mum's observation -- if you go against mum's observation, I learned very early in my career, you're in trouble. Mum has the best perception of how sick her child is. She then went on to say that the doctors and nurses didn't seem to feel Lucy looked very sick. Prior to the -- she also said there were many attempts taken to put an IV line up.

Prior to the IV fluids being started, she made a statement which said that Lucy was very floppy, her sister came in and she didn't recognise her, she seemed to be staring through her, and glassy-eyed, and she asked the doctors to then look at her again. And if you go into her observations on the resuscitation, I can't say other than they didn't seem to be very efficient. I'm sorry I'm getting a bit emotional about this.
THE CHAIRMAN: Okay. Thank you very much.
MR WOLFE: Thank you for that, doctor. Are you okay to continue?
A. Yes, I'm fine.
Q. Thank you. The single biggest concern, doctor, about your input into this case appears to surround your designation of the fluids used for this child in terms of the type of fluid --
A. Yes.
Q. -- as being appropriate.
A. Yes.
Q. You have told us, fairly, I think, that it is only in comparatively recent times when you have had access to the inquest materials that you were, if you like, placed in a position of being able to form a better view about just how sick this child was.
A. I think that's accurate.

Q. Nevertheless, from the data that was available to you at the time of your involvement, you were able to identify the fact that this child was to some extent dehydrated.
A. Yes. There were a few pointers to that: the history of vomiting and later diarrhoea; the slightly increased pulse rate -- although that's not specific, it can go with her fever; and within the notes it actually said that her mucus membranes were moist, which would go with not very severe dehydration, probably less than 5 per cent. They had assessed the capillary refill time, but you can't take that in isolation -- it has to be taken along with other things.
Q. The capillary refill was identified, somewhat non-specifically, as being greater than 2 seconds; is that right?
A. That's right, it's not the way I would record it. I record how many seconds it takes for the capillaries to refill, and if you take it as an isolated observation -- it shouldn't be taken as an isolated observation.
Q. Urea?
A. Urea is raised at 9.9. That's certainly raised, yes, and would go with dehydration or with renal problems, but more likely dehydration.

Q. So those factors, taken together, led you, as we see in your note here -- and it's repeated elsewhere -- to take the view that this child was to some extent dehydrated, possibly up to 10 per cent?
A. Well, it wasn't my view that it was up to 10 per cent. I was giving the volumes of fluid which would be required had they assessed her as being zero, 5, and 10 per cent. My own perception was she was somewhere between 5 and 10 per cent, but less than 10 per cent.
Q. In terms of the appropriate fluid for a child with a background of gastroenteritis, with or without an impact on their electrolytes, but if they are dehydrated, is to use a fluid with a greater degree of sodium content than one-fifth normal?
A. Yes, I accept that. I've told you why I said "appropriate". That was my perception of the doctors' -- I accept if they're more than mildly dehydrated, that the loss should be replaced with half-normal or normal saline, depending on the degree of severity.
Q. I will come back and explore that and why that is the case for illustrative purposes in a moment. But I just want to get a better idea of why the word "appropriate" continued to follow this fluid type around your various reports, whether oral or in note form, or ultimately in

your final report, because what you're saying today is that fifth-normal saline for this child was in fact inappropriate.
A. Unless it was -- well, yes.
Q. That's right.
A. Unless it was perceived that a child was not ill and was not dehydrated or less than 5 per cent dehydrated, in the year 2000, the fluid which was going to be pulled off the shelf was fifth-normal saline. I accept that the word "appropriate" does not ring well through that, yes.
Q. What you say in your witness statement, the reference is 279/1, page 24, is:
"My perception was that the doctors admitted the child and assessed her as requiring maintenance fluids and at that time, the commonest maintenance fluid was Solution No. 18. If a child appeared shocked, however, [you say] that the common practice was to use 0.9 per cent or normal saline."
A. Yes.
Q. "But it did not appear to me from the notes that they assessed that Lucy was shocked."
A. That's correct.
Q. Is that your way of explaining how you came to use the word "appropriate" to describe the fluid type that was

used here, that you were in essence trying to reflect what the doctors thought appropriate?
A. That's what I said a few minutes ago, yes, that's exactly right.
Q. Whereas you in fact, recognising that the child was dehydrated, would have been quite capable of reaching the conclusion and indicating to the Trust that normal saline or half-normal saline was the appropriate fluid?
A. I accept that criticism.
Q. I'm not sure we need to bring it up on the screen, but the learned textbooks in this field, which Dr MacFaul has referred to in his report in annex C, the views expressed in Forfar & Arneil and in the APLS manual, both of those documents indicate clearly that where you have a child with moderate dehydration, the appropriate fluid type is normal saline --
A. I accept that.
Q. -- which, in combination with the child's maintenance fluid requirements, might be coupled together and you might then use half-normal saline for convenience rather than using two drips.
A. Yes, I accept that. My use of the word "appropriate" was based on the perception that the doctors thought the child was not ill, was not as ill as she was.
THE CHAIRMAN: When you said a moment ago you accept the

criticism, is the criticism that you're accepting that I think you didn't make clear in what you said to the Trust in your review that you were distinguishing between the treating doctors' perception of how ill Lucy was and your perception?

A. I should have made it clear, chairman.

THE CHAIRMAN: If you think that they got the type of fluid wrong, I think it's clear that you also think that they had some level of miscalculation of the dose.

A. I have always said that the volumes given were absolutely incorrect.

THE CHAIRMAN: Let's forget about the 500 ml after the 3 o'clock event. If you go before 3 o'clock, if you have her between 5 and 10 per cent dehydrated, moderately dehydrated, are you looking then at somewhere around 60 to 80 ml an hour?

A. That's what I'd be saying, yes.

THE CHAIRMAN: At 80 they had her -- well, an extra 25 per cent if the appropriate dose was 80 and an extra, what, two-thirds if the appropriate dose was 60?

A. If you say so, yes, chairman. But certainly the volume of 100 ml run in over four hours, I have said, and still think was incorrect, that volume was incorrect, even setting aside the type of fluid.

MR WOLFE: To summarise what you're telling us, doctor,

rather than telling the Trust that the child's type of fluid pre-seizure was appropriate, you should instead have been telling the Trust that based on your assessment of her degree of dehydration, both the type of fluid and the volume of fluid given to her pre-seizure was inappropriate?

A. The volume certainly inappropriate, and I cannot remember all of what was discussed in terms of the type of fluid at the meeting I had, whether I said that if they reckoned she was shocked, she should have had normal saline, I just can't remember, but I should have made it clearer that the type of fluid given was only appropriate if they reckoned she was either not dehydrated or mildly dehydrated. I accept that.

Q. What I can't understand, doctor, is the explanation that you've given today. The explanation that you've given today suggests to us that what you were reflecting back to the Trust is, if you like, by getting inside the heads of the doctors and saying, "That's what I thought that they wanted to prescribe", in other words, "That's what I thought was appropriate by reference to their understanding of the condition". How does it make sense to criticise the volume of the fluid that was given and tell the Trust about that, but not at the same time criticise the type of fluid that you knew or at least

strongly suspected to be wrong?

A. The volume given -- if she had been given 30 ml per hour for four hours, I don't think the problem would have arisen.

Q. That's right.

THE CHAIRMAN: Can I ask you it this way to follow on from what Mr Wolfe asked you? If you bring up 033-102-271, which is your report, and if we look at the bottom section of that page under the heading "Fluids". You say starkly:

"She was treated with Solution No. 18, which would be appropriate."

But what you're saying today is she was treated with Solution No. 18, which would be appropriate if the treating doctors had identified her illness correctly, which I don't think they did.

A. That's what I should have said, chairman.

THE CHAIRMAN: So anybody who's read that in the context of Lucy's case without reading in the words which I have just added would understandably be critical of you for that sentence?

A. I accept there can be criticism.

THE CHAIRMAN: Thank you.

MR WOLFE: Sir, would it be a convenient moment for a short break?

THE CHAIRMAN: Yes, we'll break for a few minutes, doctor. I think we're on track to finish Dr Quinn this afternoon.

MR WOLFE: I hope so.

(3.25 pm)

(A short break)

(3.45 pm)

MR WOLFE: Doctor, picking up where we left off, could I ask you to consider the views expressed by some of the doctors who have commented on how Lucy was cared for and the analysis that they have carried out in respect of her deterioration in light of what you have said this afternoon?

Could I have up on the screen, please, 013-010-033. This is the report of Dr Dewi Evans, who was a paediatrician retained by the Crawford family and he provided a report about eight months after you reported, and it's dated 18 February 2001. Have you read the report in preparation for today?

A. I have read it. I have not read it recently, but I have read it in the past.

Q. Could we have up the next page, please, alongside it? At paragraph 40 he sets out Lucy's weight, he sets out the normal fluid requirement of a child of this weight, being 100 ml per kilogram per 24 hours. So that would

get you to 914 ml. Then he's doing what you did, assuming a certain level of dehydration here, he plumps for 7.5, you went through various gradations of dehydration. He works out the total volume of fluid required by the child, and that's an entirely proper approach, isn't it?

A. Yes.

Q. And then he looks at paragraph 41 and he says:

"The standard management of Lucy on admission would be to insert an intravenous line and infuse a solution of 0.45 per cent saline."

A. He does.

Q. He says:

"If there was evidence of hypovolemic shock, one would consider an initial bolus of either 0.9 per cent of normal saline or human albumin."

Again, that's the teaching that emerges from the textbooks I referred to earlier.

A. Yes.

Q. And then over the page, he sets out a calculation based on what he has just said. This is his criticism of the failure to calculate the fluid replacement and document the results, which he describes as woefully inadequate. He says:

"The decision to use 0.18 saline from the outset was

also wrong."

A. He does.

Q. That's a view that you share, that it was wrong?

A. Which part are you asking me about now?

Q. That sentence.

THE CHAIRMAN: Let's take paragraph 42, doctor.

A. Sorry, you started at paragraph 40, talking about volumes, so I'm just not quite sure --

MR WOLFE: I don't mean to confuse you.

THE CHAIRMAN: I understand. Let's go to paragraph 42. The first sentence, I suggest, is easy:

"The failure to calculate the fluid replacement and document the results is woefully substandard."

A. Yes.

THE CHAIRMAN: "The decision to infuse 100 ml per hour of fluid was wrong."

A. Yes.

THE CHAIRMAN: "The decision to use Solution No. 18 from the outset was also wrong."

A. We've had discussion about that and I have taken that criticism.

THE CHAIRMAN: Yes. But that means that you agree with Dr Evans?

A. Well, with the caveats of what I talked about, the perception of the doctors, I agree that --

THE CHAIRMAN: And then the final sentence:

"The decision to pour in 500 ml of normal saline at the end was wrong."

A. Absolutely.

THE CHAIRMAN: You already said that. So in effect you agree with paragraph 42 and your only slight caveat is in relation to the third sentence, but your caveat is that while you agree with that, that didn't appear to be understood by the treating doctors as to the extent of Lucy's illness.

A. Yes, chairman.

MR WOLFE: Could I just address that caveat? Your task was to critique the approach of the treating doctors.

A. Yes.

Q. Your task was to objectively advise the Trust whether the treating doctors had adequately analysed what was wrong with this child and identified the appropriate fluid regime.

A. That was certainly the case, and as I've said previously, I'm not sure how much I discussed about the use of normal saline initially, had they assumed that Lucy was in any way hypovolemic or shocked. So that discussion may have taken place. I cannot say it absolutely did or I cannot say it absolutely didn't.

Q. One thing we can say is that nowhere on any of the

materials that you have provided to us, your notes of analysis to start with, working right through to your written report, in none of those documents have you equivocated upon the nature of the appropriate fluid. At all times you have been clear that the fluid that was administered to the child in terms of type was appropriate.

A. Yes, but remember that the main thing that I agreed to was a verbal discussion, so it may have taken place -- there may have been verbal discussion about the use of normal saline in shock at that meeting. There certainly was discussion about some other topics which weren't noted in my short report.

Q. Well, that's fine, doctor, and we'll turn to the discussions in a moment.

THE CHAIRMAN: I'm sorry, doctor, even if that's right, the report you wrote the following day said that the type of fluid was appropriate.

A. I can't deny that, chairman.

THE CHAIRMAN: So even if there was a discussion, when you were setting this out, your report out for Mr Fee, who is a nurse, and Dr Anderson, who is a obstetrician, when you met with them and set out your report in writing as you did, then the one point you didn't make to them was that the fluid was inappropriate.

A. I accept that.
THE CHAIRMAN: And just to pick up one more point on this, if we go back for a moment to your witness statement, 279/2 at page 9 -- we were looking at this a little while before the break. If you go down to the bottom of the page:
"Diagnosis cerebral oedema. Query encephalitis. Query oedema."
When you were putting a little more flesh on that earlier on, you said oedema can result from, and you explained to me about encephalitis, perhaps a brain infection of some sort, and then you said:
"Oedema can arise from the type of fluids and the rate being incorrect."
A. I did say that, yes. There are several causes for cerebral oedema, including those that you have mentioned.
THE CHAIRMAN: And that was one. But what you had -- what had occurred to you, which you noted working your way through Lucy's records, was perhaps encephalitis and perhaps oedema, and oedema can be caused by giving a child the wrong type of fluid at the wrong rate.
A. Amongst other things, yes, chairman.
THE CHAIRMAN: Now that I understand that you're recognising that that is what happened to Lucy, that she did receive

the wrong type of fluid and she did receive the wrong rate of fluid, does that become in your mind an explanation for her death?
A. It can be part of it, but if the resuscitation was inadequate, it only forms part of the causation.
THE CHAIRMAN: Right. So that might explain it, but even if it doesn't explain it on its own, what happened to her at resuscitation, and particularly giving her an excessive dose of normal saline, would make a very bad situation even worse?
A. It would, and if she had become hypoxic during the seizure, it would have been another element thrown into the mix.
THE CHAIRMAN: Thank you.
A. And the other thing I'd say about it, where I stated I'd be surprised if that volume could have caused coning in that period of time, I said I'd be surprised if that could happen. That also was very much in my mind at that time that the timescale seemed too short for anything that I would have experienced in clinical practice anywhere.
THE CHAIRMAN: Can I say to you that in Adam's case, I heard of an even shorter drastic deterioration in a child. I know it's not a direct like-for-like comparison, and you would of course tell me that no two children are

like-for-like comparisons, but Adam received, I think from memory, even a greater excess of fluid, but in a shorter period of time. And the evidence on that points very strongly to that being the cause of his demise.
A. Thank you, chairman. The other thing which I was talking about, Mrs Crawford's submission to the coroner, I would say that before the fluids were put in, Lucy was in a very abnormal -- I don't know how to put it -- cerebral state. So I think all of the elements put together may well have had an element of contribution.
THE CHAIRMAN: Thank you.
MR WOLFE: Could I have up on the screen 013-010-035 and 036? This is the continuation of Dr Evans' report. At paragraph 47, he talks about the ADH secretion --
A. Yes.
Q. -- which I know that you touch upon in your statement --
A. Yes.
Q. -- and say that it formed part of the conversation that you had on 21 June.
A. Yes.
Q. But what he goes on to say is that -- and this is where he's dealing with the adverse electrolyte findings halfway through that paragraph --
A. Yes.

Q. "Sodium had fallen to 127, potassium very low at 2.8."
By contrast, of course, urea had returned to its normal value within a short period of time. He says:
"I do not think one can explain these findings on the basis of some conjectural inappropriate ADH secretion. It is far more probable that this was caused by the infusion of too large a volume of fluid, most of which was far too dilute."
As I understand what you're telling us this afternoon, you are in agreement with the analysis or conclusion which says that this child got too much of a solution which was too dilute.
A. What I said was that the fall in the sodium -- we discussed what could have caused that, including the type of fluid and volume of fluid --
Q. Yes.
A. -- the gastroenteritis and the possibility of inappropriate antidiuretic hormone coming into play. I think actually the child's urea was 2.5, but I am not absolutely certain of that.
Q. He goes on then at paragraph 48 and says:
"If intravenous fluids in the form of sodium and water is corrected too rapidly in the extracellular space, the water will pour into the cells ..."
He is explaining the process by which the

electrolyte derangement can cause this osmotic effect, leading to the cerebral oedema.

A. Yes. And this is what I was saying to you about the patients with hypernatraemia. You pour in dilute solution and they get cerebral oedema.

Q. And he is reflecting upon the fact that in this case, within a space of several hours, Lucy's electrolytes saw this derangement so that 137 dropped to 127, and he's saying that correcting too rapidly in the extracellular space, water will pour into the cells, causing swelling of these cells:

"If the cell swelling occurs in the brain, this leads to cerebral oedema. The brain is contained in the confined space of the skull and there is no room for the swollen brain to expand."

He goes on to say:

"If Lucy had been managed according to the basic standards of paediatric practice in a district general hospital, it is extremely unlikely, in my opinion that she would have sustained cerebral oedema. She should have had a more careful appraisal of her clinical state to include an assessment of her degree of dehydration. She should have received a bolus of isotonic intravenous solution, such as 0.9 per cent normal saline, or HSA [human albumin] in a total volume of 90 to a maximum of

180. She should then have received half-normal saline."

Doctor, digesting all of that -- and you'll see the context, for this is written some eight months after you had some involvement in assessing Lucy's case, albeit this doctor is writing a medico-legal report, but leaving aside that, as I understand your evidence this afternoon, you're entirely in agreement with the view that Lucy had the wrong volume, the wrong type, and those mistakes at least contributed, perhaps along with other factors, in causing the electrolyte derangement and in turn the cerebral oedema?

A. I think the fluids formed part of the risk for her cerebral oedema. At that time, I didn't think the timescale would allow that to happen over a four-hour period solely in relation to the fluids that she received. There were other aspects of the case which needed to be explained. Why she stopped breathing, was that related to the diazepam? Probably not. Was it related to the seizure? Possibly. Was it related to inadequate resuscitation? Possibly. So all of these factors -- and the fluid run in after the seizure, the normal saline being run in. All of those factors I took into account and all of those, either singly or in combination, could have caused her cerebral oedema.

THE CHAIRMAN: Sorry, doctor, can I take you -- the brief

that you were given is at 033-102-296. There are three questions there. We looked at them earlier this afternoon.

A. Yes.

THE CHAIRMAN: Those three questions cover the evidence, exactly the evidence, which you've been giving in the last few minutes; isn't that right?

"The significance of the type and volume of fluid administered, the likely cause of the oedema, the likely cause of the change in the electrolyte balance, was it likely to be caused by the type of fluids [et cetera]."

A. Yes.

THE CHAIRMAN: And you have just expressed to me over the last few minutes what your view was on that. Would you agree with me, without going through your report paragraph by paragraph, that I will not find the evidence which you have just given today in your report for the Erne?

A. Well, without going through it, I'm trying to remember what I said in my written report.

THE CHAIRMAN: I'll bring up your report. It runs for four pages, as I'm sure you remember, 033-102-270 to 273. If I can summarise it like this: you have made the point this afternoon that you recognise that the type of fluid and the volume of fluid pre the 3 am event was likely to

have contributed to Lucy's death, but there may also have been other factors.

A. Yes.

THE CHAIRMAN: Right. But that doesn't appear in your report.

A. Those other factors would have been discussed at the meeting, the oral meeting.

THE CHAIRMAN: But even the starting position that they are likely to have contributed to Lucy's death, that does not appear in your report; isn't that right?

A. I accept that, chairman.

THE CHAIRMAN: It's specifically one of the things you were asked:

"What is the significance of the type and volume of fluid administered?"

You think it's highly significant in terms of what happened to her.

A. I think, from going through her chart, that it could have been part of what was a causation in her cerebral oedema. I felt the timescale was very short from my experience of dealing with children with IV fluids, et cetera. So it would have been part of what I thought and discussed, but it wouldn't have been the sole cause because I didn't have the information in terms of a description of what happened to Lucy at the time of the

resuscitation.
THE CHAIRMAN: Yes. I'm not asking you why it isn't identified as the sole cause of her cerebral oedema in the report; I'm really asking you why it is not identified as a contributory cause.
A. I haven't played on it very much, but it is 13 years ago and I'm having difficulty saying why that didn't go in the report. It's not in the report.
THE CHAIRMAN: To be fair to Dr Anderson, he said to me a few days ago that he thought that you'd got it wrong, but he didn't feel qualified or equipped to challenge you. He thought that your report was wrong about fluids. But because you're a paediatrician and he's an obstetrician, he thought he should go with it. He couldn't have had the understanding of your report that you've given us today; isn't that right?
A. If you go to the final page of the report, chairman --
THE CHAIRMAN: Yes. It's 033-102-273.
A. The final paragraph:
"I find it difficult to be totally certain as to what occurred to Lucy in and around 3 am or indeed what the ultimate cause of her cerebral oedema was. It is always difficult when simply working from medical and nursing records and also from not seeing the child to get an absolutely clear picture of what was happening.

However, I hope I have attempted to be as objective as possible with the information available to me."
If I say I find it difficult to be totally certain, that is clearly stated, and anyone who read that couldn't take it as anything else.
MR WOLFE: But it's to be read, doctor, if we go back to 271 of this sequence of pages -- at the bottom of page you deal with fluids. It's a series of points in which you have had to commit to writing or commit orally in respect of the fluids regime.
A. Yes.
Q. And each time you commit to the issue, your description of the pre-seizure fluids is that they are appropriate. So how is the reader of your report or the person listening to what you have to say about the fluid regime to connect the pre-seizure fluids to the electrolyte derangement and to the cerebral oedema if you are characterising those fluids as appropriate?
A. What I have said in my report and what I said orally was, in my opinion, based on the presumption that the doctors underestimated how sick Lucy was, that the type of fluid was appropriate. I know we've been through the word "appropriate" before. I have said the type was, but at no stage have I said that the volume of fluids given was correct.

Q. Yes, but the caveat that you keep introducing, doctor, doesn't explain matters away at all. If the fluid type was wrong for the condition as you understood the condition to be, then the onus on you as the person contracted to provide this report was to say so without fear or favour and in plain terms. And, if I may say so, are you hiding behind today an explanation about what you thought the doctors intended rather than properly conceding that you provided an analysis of the type of fluids that was completely wrong?
A. I'm not hiding behind anything, can I first of all say --
THE CHAIRMAN: I could understand the position better if you had said in the conclusion of your report, "I can't be entirely certain what of all the factors which may have caused the oedema, but it seems to me that the type of fluid and the rate at which it was given, together with an inadequate resuscitation or a dangerous resuscitation [however you want to describe it] are likely to at least have been contributing factors to the oedema which caused Lucy's death."
But I'm afraid we don't really find that, sure we don't.
A. Chairman, I'm not sure what to say. I think I have been through this.

THE CHAIRMAN: Thank you very much. I have got the point. I think we can move on, Mr Wolfe.
MR WOLFE: Could I move briefly to the meeting over the telephone on 2 May?
Mr Fee and yourself had a telephone discussion and this followed upon your consideration of the notes. If I could have up on the screen, please, the typed record of that meeting, 033-102-287. There are various notes recording this meeting. There's a handwritten note, the handwritten note was transferred into this typed version and there are, upon analysis, various differences in play. But leaving that aside, unless it's particularly relevant to this point, can I just ask you this: item (ii) on this list of issues records you as indicating again that the type of fluids appeared appropriate:
"The amount given would be dependent upon the level of dehydration, but would expect up to 80 ml per hour."
So encapsulated within that point at (ii) is you asserting that this child had dehydration, the amount in terms of volume that she should be given, or in terms of rate that she would be given, would depend upon the level of that dehydration. But for dehydration, you're saying, the type of fluids appear appropriate. Can you remember expressing yourself in that way?
A. I can't remember expressing myself in that way. It's

recorded here as that and I've been through before about the type of fluid and I've been through before about the calculations of what would be expected to be given depending on the assessment of the degree of dehydration.

THE CHAIRMAN: Yes. Unfortunately, if you're going to give Lucy up to 80 ml per hour, that puts her up towards 10 per cent dehydration, in which case the type of fluid given to her is not appropriate; isn't that right? Because if she's only slightly dehydrated, you would not be giving her 80 ml an hour?

A. Yes. I have said my assessment would have been somewhere between 5 and 10 per cent.

THE CHAIRMAN: Yes. And that is what takes you up to 80 ml an hour?

A. Maximum.

THE CHAIRMAN: If you're giving her that 80 ml an hour maximum, you're giving her normal or half-normal saline, you're not giving her Solution No. 18?

A. At 80 ml an hour, that's correct.

THE CHAIRMAN: So within that paragraph 2, there's a contradiction, isn't there, because the type of fluid couldn't be appropriate if you're giving her up to 80 ml an hour?

A. Yes.

THE CHAIRMAN: There comes a point along that line where the type of fluid becomes inappropriate to the volume?

A. Yes. But that's as recorded by Mr Fee.

THE CHAIRMAN: I understand. You don't remember this conversation?

A. I honestly don't recall the conversation at all.

MR WOLFE: Indeed, he has --

MR COUNSELL: Perhaps in fairness to the witness, it ought to be put to him that the word "would" in (ii) is not in the original note, where the word "may" appears in fact:

"May expect up to 80 ml per hour."

I don't know whether that makes any difference.

THE CHAIRMAN: I'll put it if you want, but I'm not sure -- I have backed off Dr Quinn a few moments ago. This is clearly difficult. He is accepting some points which ultimately help the inquiry, even though it's clearly very uncomfortable for him, and I don't want to unnecessarily prolong this.

Mr Wolfe?

MR WOLFE: You had a further meeting on 21 June at which Mr Fee attended, along with Dr Kelly, and you met in Altnagelvin?

A. Yes.

Q. There is a record of that meeting, if we could have it up on the screen, 036c-004-007. I suppose, in fairness

to you, doctor, could we have up beside that the notes that you brought to the meeting, 279/2, page 10? I know that you brought a series of notes with you, doctor. That's what you've told us. The note on the right side is yours; the note on the left side is composed by Dr Kelly.

A. Yes.

Q. Again, the same theme predominates. You have described the fluids, fifth-normal saline, as appropriate and we have your explanation for that today. And on the left side we have the summary of the position as saying:

"Choice of fluid correct. Resuscitation volume higher than normal."

Doctor, in terms of the Trust and how they should have understood what you were saying at that meeting, with regard to the pre-seizure fluids, did you give Mr Fee and Dr Kelly any reason to be concerned about the type of fluid that was used?

A. I stated that it's clearly seen that the N/5 was appropriate.

Q. Sorry, I didn't hear that.

A. It's recorded that I said the type of fluid was appropriate.

Q. Does that mean then, in terms of any discussion about that fluid, that they would have been left assured that

at least as regards the type of fluid that it was appropriate for this child's circumstances?

A. They may have been.

Q. Can I bring up what you said in a witness statement and see if this assists you? 279/1, page 30. If we could have 29 up alongside it, please, because it contains the question.

It asks you:

"Please clarify what conclusions, if any, you reached on the issue of the likely cause of the change in the electrolyte balance."

The answer that you give to the question on the top of the right-hand page is:

"My conclusions were that the changes in the electrolyte balance could have been contributed to by the infusion of fifth-normal saline in the stated volumes, fluid and electrolyte loss from vomiting and diarrhoea, and possible inappropriate ADH effects in a sick child."

I'm conscious that that's what you're telling us today are the factors that you have in mind as probably contributing to this child's demise.

A. Yes.

Q. The question which I'm asking you is: in light of the fact that the note of the meeting on 21 June describes

the use of fifth-normal saline as appropriate, can you clarify for us whether you identified fifth-normal saline as possibly being one of these contributors to Lucy's demise?

A. The fluids used were certainly discussed and, as stated there, the volumes given of the fifth-normal would have been discussed in terms of causing the hyponatraemia, the lowering of the sodium level.

THE CHAIRMAN: So it was the volume, not the type of fluid which you were pointing at on 21 June?

A. I'm sorry, chairman?

THE CHAIRMAN: On 21 June, it was the volume rather than the type of fluid which you were pointing at?

A. Well, I couldn't really have discussed the volume without mentioning that it was fifth-normal saline during a discussion.

THE CHAIRMAN: Okay.

A. So I would have been pointing out that that type of fluid, given in that volume -- and perhaps more of a volume, which I questioned -- could have contributed.

MR WOLFE: Could I go back to the record we were looking at, 036c-004-007? I want to ask you a question about the post-seizure fluids. There is an entry that you can see in the middle of the page. It says:

"Dr Quinn notes that there was further fluids

administered after the resuscitation, 250 ml of normal saline."

Do you see that?

A. I do see that, yes.

Q. When we asked you about that for the purposes of your witness statement for this inquiry, you pointed out that you do not recall reaching the view that 250 ml had been administered.

A. Yes, that is correct. That is correct. I was specifically questioning the -- particularly Mr Fee -- how much of the normal saline was given and I had personally certainly not extracted from the notes anywhere that 250 ml was given. You'll not find that anywhere. So the 250 ml did not come from me. What I was doing, I identified that 500 ml had been set up and with the two different entries, one by Dr Malik, saying 500 ml over an hour, and one by Nurse McManus, was it, possibly, saying 500 ml set up to be run in freely. My question was very much: well, actually, how much fluid was given of the 500 ml? I did not identify 250 ml.

Q. Can I ask you this: could it have been suggested to you at this meeting that 250 ml was the figure that Mr Fee had established from the nursing staff as having been given, but that might have jarred against your analysis

of the notes where there are clear indications that 500 ml was given?

A. The 250 ml did not come from me. It may have come from Mr Fee, but I think I said in my written report that I still didn't know how much was actually given of the 500 ml.

Q. And why was that? Why was it significant to have clarification of precisely how much she got?

A. Because if it all was run in, it would have been a serious problem for her, as we've talked about before, as we said before.

Q. Yes. Arising out of that meeting, doctor, or leaving that meeting, I should say, what, in your view, were the questions that were still left unresolved?

MR GREEN: May I invite my learned friend, before he asks Dr Quinn to leave the meeting, to just go back to the meeting for a moment and Dr Kelly's note in the middle?:

"Fluid replacement: 4 hours at 100 ml provided was greater than normal, but not grossly excessive."

And I wonder if he could be asked if that meshes with his recollection of his opinion at the time. Not now, but at the time.

MR WOLFE: Does that not accord with your view that you'd reached at the time.

A. I don't recall saying "not grossly excessive". I do

recall saying that I'd be surprised if that volume could have caused the cerebral oedema within the timescale.

Q. And that's what you have said in your report?

A. Yes.

THE CHAIRMAN: I went through the percentages with you earlier on this afternoon, whether it should have been 60 ml or 80 ml, there's an extra two-thirds or an extra 25 per cent being given. Would both of those fractions or percentages be grossly excessive?

A. They were excessive chairman, yes. I don't know how to define grossly.

THE CHAIRMAN: Two-thirds would be grossly excessive, wouldn't it? If you give a person two-thirds more fluid than they require, that would be grossly excessive.

A. I just can't say. I think it's more likely I said, rather than grossly excessive -- this is not what I wrote. What I have written and what is recorded as me having written was that it was -- I would be surprised that that volume could have caused -- led to her cerebral oedema in that time frame. I just don't know that I used the term "grossly". I haven't written it anywhere else, I don't think.

THE CHAIRMAN: Okay, thank you.

MR WOLFE: As the meeting concluded, doctor, what do you say was left unresolved in terms of the facts around Lucy's

treatment?
A. I think what was unresolved still was how much of the fifth normal saline she had before resuscitation and the amount of fluid that she had after resuscitation. Sorry, how much of the fifth normal saline she had before the episode of collapse and the amount of normal saline given in and around and after the time of collapse, and indeed the fluids beyond that, and the efficiency of the resuscitation process that took place in the Erne, were there delays, could she have had hypoxic brain damage as a result of that? I pointed out the poor documentation of what fluids should have been given by way of a fluid prescription, and I think certainly the -- it wasn't resolved in my mind, certainly, as to how much each of the elements of problems in terms of fluids, how sick she was, the resuscitation, et cetera, could have contributed to her brain oedema, her cerebral oedema.
Q. In terms of what was expressed at the meeting, do you believe that those things were said?
A. I believe so. Certainly in terms of the fluid volumes, yes, and we had certainly a discussion about -- well, as I've written, about the resuscitation process.
Q. What caused you to be uncertain about the pre-seizure fluids in terms of their volume?

A. I think there were two things. The way the -- the fact that there hadn't been the prescription written and also speed of deterioration on 400 ml to me was surprising and I wondered, could more fluids have been given than were recorded in the notes as had been given, for example 500 ml, 600 ml or whatever, because had she been given even more of an excess of fluid before the 3 o'clock episode, that could certainly have contributed to the rapidity with which she deteriorated.
Q. You say you were expressing surprise that the use of 400 ml of Solution No. 18 could have caused the problem.
A. Over the four hour period.
Q. Yes. Nevertheless, of course, that was the wrong fluid to give the child, so she was getting 400 ml of the wrong fluid, she was getting 400 ml of that fluid when in fact she should have been getting a fluid with a higher percentage of sodium; isn't that right?
A. I think we've been through that. I'll repeat that I felt that the 400 ml of fifth normal saline over the timescale would surprise me if she had gone into gross cerebral oedema, causing coning within that time frame.
Q. You recognised, however, doctor, that when you give a child too much of a low solute fluid that you do stand a risk of causing a cerebral oedema?
A. I think we've been through that and, yes, that is the

case.
Q. You agreed to provide a written report for the trust?
A. I was persuaded at the meeting to provide, as I've said, a summary of some of what was discussed at the meeting for the purpose of their internal inquiry, but for no other reason, and that has been confirmed in terms of me not producing a medico-legal report by, I think, both Dr Kelly and possibly Mr Fee.
Q. You described to the media the idea that you were "sweet-talked" into producing that.
A. That was an inappropriate wording, under extreme pressure, when I was doorstepped by Mr Birney. I would have been better saying that I was persuaded to write a summary report following my case note review.
Q. The impression from the use of such language was that you were the subject of inappropriate pressure to produce the report.
A. I think I can remember Dr Kelly's words pretty exactly. He said, "You've done all the work, so why don't you produce a report?" And at that stage I said I was not willing to produce a medico-legal report. He said that he needed something to deliver to Dr Anderson, who wasn't there, for the purposes of the internal inquiry, and it was at that stage that I agreed to produce a summary report, written for those purposes only, for

that purpose only.
THE CHAIRMAN: In other words, if the two people who'd been doing the review, namely Mr Fee and Dr Anderson, had been there that day, instead of Mr Fee and Dr Kelly, you would have declined to write a report because you would have given them the information or the views which you'd formed?
A. Yes. I strongly said that I was going to have a verbal discussion with representatives of the trust and it was at that meeting that I was asked to produce a report in the words that I said.
THE CHAIRMAN: Thank you.
MR WOLFE: Could it have been, doctor, that you felt under some pressure from the trust to produce a report in which you pulled your punches in terms of the appropriateness of this fluid regime?
A. No, not at all. I didn't have any pressure put on me from anyone to omit or include anything within my report. There was no pressure to in any way influence my opinion.
Q. Because two parts of your report, doctor, with regard to the fluid regime don't make sense. The description of the fluids as being appropriate we have gone through, and we have your explanation for that. The second part is where you describe the fluids going into Lucy over

a seven hour period, which has the effect of drawing attention away from the fact that 100 ml per hour went in.

A. That was not the purpose, and we've been through that already, the seven hours.

Q. You mentioned it. I haven't addressed it with you.

A. Oh, I thought we had. It was mentioned in one of the things, the seven hours, and I said at that time I was in no way trying to lessen the effect, I was trying to take what fluids she'd had, including the oral fluids she'd had before the IV fluids over the period of time, from the time of admission to the episode of collapse. I was trying to take into account all of the fluids because, as I said, from when she was admitted, and indeed before she was admitted, she was still losing fluids into her bowel at that time and I wanted to take account of all of the fluids going in at that period of time, and I clearly stated in my documents that 100 ml per hour was given. Well, at least 100 ml per hour, some people would say.

So far from trying to reduce the volumes by doing it over seven hours, I was trying to take into account all of the fluids that had been given and in no way did I avoid saying that she had been given 100 ml per hour over at least a four hour period.

Q. Did you know the purpose for which your report would be used, doctor?

A. I understood it to be used purely for the internal inquiry and indeed not for a formal complaints procedure, nor medico-legal procedure. Indeed, I was not called to any of those to give evidence.

Q. Can I ask you to examine with me a number of descriptions of your report which have emerged from the trust. Could I have on the screen, please, 033-102-262. This is Dr Anderson, one of the coordinators of the review process, who you wouldn't have met during the review, but he says of your report, the second paragraph down:

"I found that the report by Dr Quinn, whilst being helpful in the sense that it ruled out any obvious mismanagement on the part of our medical/nursing staff at the hospital, was also evidence of the fact that there was no clearly obvious explanation for the child's sudden deterioration."

A. Yes, it does say that.

Q. Can I take that in two parts? Were you ruling out any obvious mismanagement on the part of staff?

A. No, I wasn't.

Q. Did you give any indication to the trust that there was obvious mismanagement?

A. I did, by questioning the volumes that were given and the fact that there was no prescription written up for that, both the fluids before and after the episode of collapse. So I can't see how they would say that it ruled out any obvious mismanagement. I think questioning the volumes, as I did, and stating that there was no prescription for the fluids would certainly not rule out any obvious mismanagement.

Q. The second part of the sentence deals with the question of whether there was a clearly obvious explanation for the child's sudden deterioration. You have told us this afternoon that to the best of your recollection you mentioned a number of factors that could have been implicated in the child's demise, including the use of fifth normal saline, the volume of normal saline that was used, SIADH and hypoxia.

A. Yes.

Q. Were any of those factors ruled out by you when you discussed these matters with the trust or in your report?

A. As far as I recall, I haven't specifically mentioned inappropriate ADH in any writing, but I've certainly mentioned the resuscitation process and the volumes of fluids used before and after the collapse. Certainly during the meeting I was shown the preliminary PM

report; I accept that I was shown that. I don't accept I was given a copy, otherwise it would have been filed with my things, and it's not. I admit that I was shown a copy of the preliminary summary of the child's PM, that was done by Dr Denis O'Hara, who put as the primary cause of Lucy's problems "well-established pneumonia", and as a secondary thing he said there was cerebral oedema consistent with a hypoxic episode.

Dr Denis O'Hara was a highly respected pathologist, I've known him since I was a medical student, I've known him in my junior training days and as a senior doctor as an expert in paediatric pathology, and if he said there was a significant pneumonia and there was cerebral oedema, I had no reason at all to disbelieve that.

Q. Save, doctor, if I can cut across you, that the notes that you were provided with contained a record in relation to a chest X-ray having been performed and the conclusion written into the notes that there were no adverse signs. Were you aware of that?

A. There is -- I think it's a note written by Dr O'Donohoe to say there was a chest X-ray and an abdominal X-ray done.

Q. Yes.

A. And noted no -- well, nothing abnormal noted on the X-ray, but there was excess fluid in the bowel and the

abdominal X-ray. But that's not a report by a radiologist and I'm not aware of seeing a report on a chest X-ray in the chart.

Q. No.

A. If the pathologist is saying that the child has pneumonia, well-established, I don't see any reason -- if Dr Denis O'Hara is saying that, I can see no reason at that time, and see no reason now, to doubt that there was a pneumonia.

Q. Of course, that might well have been a consequence of the ventilation.

A. I think Dr O'Hara mentioned a timescale outside that timescale. I'm not absolutely certain because, as I say, I had a view of it and there may well have been a copy sent through from the inquiry at some stage which I have filed and read. But my reading of that was that there was a well-established pneumonia reported on the PM, and indeed in the summary that was the number one item that was mentioned, and the second item was cerebral oedema.

Q. But he didn't reach any final conclusions in terms of causation with regard to the presence of bronchopneumonia.

A. No.

Q. He didn't identify that as the cause of death.

A. No, I disagree. My memory is that he did say that this played a significant role in this child's death.

Q. But when it came to --

A. That's my memory of reading it.

Q. Are you talking about your memory of reading it recently or your memory of reading it at the time? Because I think you've told us that you didn't retain that copy.

A. That is correct. No, I recall that the PM -- the main things on the PM at the time of the meeting, that I took in at the time of the meeting, were the pneumonia and the cerebral oedema. I have certainly read his report more recently and so in terms of the detail, or all the words that were included, I can't say if that was at the time that I talked to Dr Kelly and Mr Fee or if it was more recent.

Q. Getting back to the time when you were talking to the trust, in terms of the factors that you say you outlined, including the use of the fifth normal saline, the normal saline, the hypoxia, the potential for there to be the antidiuretic hormone, had you ruled any of those matters out when you were discussing the case with the trust?

A. I'm not aware of ruling any of those out.

Q. Can I ask you to look at a discrete section of the review report that was produced by the trust?

033-102-267. At the top of the page is a description of what the nurses were saying was the fluid regime which they applied to the child. It said about six lines down:

"Nursing staff held a clear view that the expressed intention was to give 100 ml hourly [of what turns out to be Solution No. 18] until Lucy passed urine."

Were you ever asked to give a comment in relation to the appropriateness of that regime?

A. I'm not certain if I was asked to give an opinion on that, but certainly I noted in the fluid chart that that's what she had been given and that there wasn't a prescription for that.

Q. I'm sorry, the bit I should have emphasised was the reference to:

"Continuing with this regime until she passed urine."

A. I don't recall making any specific decision based on that in terms of fluid regime prescription.

Q. Could I ask you to look at the following document, 033-055-166. This is a letter which Mr Mills, the trust chief executive, wrote to the Crawford family some time after the review was complete. In the third paragraph it says:

"Turning specifically to the point made in your most

recent correspondence, the outcome of our review has not suggested that the care provided to Lucy was inadequate or of poor quality. As you will be aware, the trust engaged an independent consultant from another trust to review Lucy's case notes and to advise us on this very question."

So you were being called in aid, Dr Quinn, to support the analysis that Lucy's care was not found to be inadequate or of poor quality.

A. Well, I'm surprised at that because I was one small cog in the wheels of the internal inquiry. Why should I be singled out as the person who reassured -- should try to reassure the father of this child that nothing went wrong? I don't accept that I should have been quoted to the father. That would have been, presumably, by part of a complaint.

Q. Well, presumably when I ask Mr Mills about this on Monday, he might tell me that in all of the conversations that you had with his staff and in the report that you provided, this is a fair reading of all that you've said.

A. The trust had access to all the staff and could have questioned them about the adequacy of the treatment at that time.

Q. I'm conscious of that, but just in terms of all of what

you said to the trust, would it be fair for Mr Mills to label you with having provided a description of Lucy's treatment as not being inadequate or of poor quality?

A. I don't accept that. I think from all the questions that I asked them at the meeting and what I said in my short report, they couldn't have taken that degree of reassurance from anything that I had written or said. I questioned a lot of what had been done in terms of the record keeping and the IV fluids, and I feel if they were reassured, if that's the word, that it can't have been -- that was certainly not my intention.

Q. One final point, doctor. Can I draw your attention to something Dr Moira Stewart has said in her statement to the inquiry? If we could have up on the screen, please, WS298/2, page 2. Do you know Dr Moira Stewart?

A. I know Dr Moira Stewart well because she worked with us at Altnagelvin, I think at senior registrar level, and I would have met her at a lot of the paediatric meetings, particularly Ulster Paediatric Society meetings.

Q. You may know that she was asked by the Royal College to provide a review at the request of the Sperrin Lakeland Trust of various issues pertaining to Dr O'Donohoe's competence. One of the cases that she examined as part of her work was the fluid management of Lucy Crawford.

A. Yes.

Q. She tells the inquiry that, as you can see in front of you, she made contact with you in the course of carrying out her work.

A. Yes.

Q. Because she had in her possession the report that you had provided for the trust.

A. Okay, yes.

Q. Do you remember that?

A. I remember that I had a discussion with Dr Moira Stewart. I don't remember a lot of the details. I was uncertain if this had been in my office when she was going through to holiday or whether it was a telephone call. I don't remember a lot of the details. As I was saying to my solicitor and barrister, bizarrely I do remember --

Q. You don't need to tell us that.

A. Okay.

Q. There hasn't been much waiving of privilege.

THE CHAIRMAN: What you discussed with your solicitor and barrister is -- you can tell us if you want, but you're not obliged to tell us what you discuss with your lawyers.

A. Okay. Well, I can still say that my memory of the telephone conversation, if that's what it was, if that's

what she said it was, or of the meeting I had -- one of the memories I have is her saying the carbon dioxide level was 16, indicating the child was acidotic and sick. I may remember that because in one's training as a doctor, and possibly particularly me, I tended to remember quite a lot of lab reports on children who were in the ward over a period of time.

MR WOLFE: What she remembers of the conversation is what I want to ask you about. You can see at item (c) she says that she had read your report. Let me just ...

THE CHAIRMAN: She was aware that you did not share her concerns. Do you see that in the fourth line of paragraph (c)?

A. Yes.

THE CHAIRMAN: Therefore she wondered if you had some additional information or reasons for reaching your conclusions and felt it might be good practice to talk to you. She can't remember all the details of the conversation, it was quite brief, but from memory you were satisfied with the contents of your report and didn't share her concerns. So at (e) she concluded that the two of you agreed to differ.

A. As I said, I've told you that the whole of my memory of that conversation -- I don't recall anything other than the low carbon dioxide and the fact that she said the

child was sick.

MR WOLFE: She has told the inquiry at that time she had reached the view that the appropriate fluid to treat this child, if shock or dehydration was suspected, was normal saline as per the APLS guidelines that we have talked about this afternoon.

A. Yes.

Q. Whereas she would have seen from your report your assertion, which you've described or explained today, your assertion that the pre-seizure fluids were appropriate, and it appears that that is what she's talking about here and that, judging from what she said, you were retaining and continued to retain the view that your description of the fluids was correct and that you then were left in a position of having to agree to differ. Do you follow?

A. I follow that, but I can't comment any further because I don't remember the conversation other than what I've told you.

MR WOLFE: Very well.

THE CHAIRMAN: Any questions from the floor? Mr Counsell, no?

Doctor, thank you very much for coming along. If there is anything else you want to add, you're free to do so, but don't feel under any compulsion that you have

to say anything further.

A. I would just like to say that my heartfelt sympathy goes out to the families of all these children. I'm very sorry they've had to go through what they've had to go through, and I say that as a paediatrician and as a parent.

THE CHAIRMAN: Thank you very much indeed.

(The witness withdrew)

Courtesy of G8, we're here at 9 o'clock on Monday morning. Thank you.

(5.00 pm)

(The hearing adjourned until 9.00 am on Monday 17 June)

I N D E X