Thursday, 6 June 2013

(10.00 am)

(Delay in proceedings)

(10.09 am)

THE CHAIRMAN: Good morning. Just before we start, Mr Lavery, I'm grateful to the Belfast Trust for the information we received yesterday about the supply of Solution No. 18. Could I ask if we could bring up two documents side by side? The first is 319-087c-003. That's the graph we've looked at a number of times. We've now got a new graph, which has been provided to show us whether the trend in that original graph is representative or not. Could we call up then 321-034b-002?

You'll see from that that, on the new graph, we have the annual purchases of Solution No. 18 from 2000, in effect, to date. You'll see from it that, as we had seen from the first seven months of 2001, the purchases of Solution No. 18 were dropping. On my rough calculation in the last five months of 2001, there were about 400 more ordered for 2002, there were only 344, and then the purchasing fell away and has been maintained at a very, very low level since.

I would simply like the answer now to one basic question: what happened in the Belfast Trust around

about 2000/2001, or particularly 2001, which led to the purchases of Solution No. 18 dropping? Something happened, Mr Lavery. Nobody has told me yet, I don't believe that nobody knows, and I would really like an answer to that question. It might have nothing to do with the inquiry, it might have something to do with the inquiry, but it fits in pretty closely with what Dr Nesbitt says he was told by the Royal Trust when he contacted them after Raychel died, and I simply don't believe that nobody knows. I have already heard evidence that a decision about this would have had to go considerably up the line.

MR LAVERY: Yes. The inquiry can be assured, Mr Chairman, that the Trust are making every effort possible to try and find out how this came about and they are trying to get an answer. I appreciate it's unsatisfactory at this stage that there is no answer to that, but I can assure you, Mr Chairman, that all efforts be being made.

THE CHAIRMAN: Well, since the purchasing of Solution No. 18 fell away to a minimal level and stayed at that for a decade, somebody within the Trust must know why that happened. In fact, there must be a whole range of people in the Trust who know why that happened. This is hardly a state of knowledge which is confined to a single person, so I would like to be told.

The other issue, which is for the Western Trust, is we received yesterday the Western Trust inquest file, which would really have been the Sperrin Lakeland inquest file. There's about 600 pages in it, we received it for the first time yesterday morning, and I'm simply setting out two points: one is that's entirely unacceptable and, secondly, Ms Simpson, if information emerges from this file and we have to recall witnesses, we will do that and it will be the Trust's fault. Thank you.

Mr Wolfe?

MR WOLFE: Good morning, sir. The next witness is Dr Jarlath O'Donohoe, please.

DR JARLATH O'DONOHOE (called)

Questions from MR WOLFE

MR WOLFE: Good morning, doctor.

We preface our evidence with all of our witnesses by asking them to confirm whether witness statements or reports which have been provided to date are to be adopted as part of their evidence -- and, in your case, your evidence -- in addition to the oral evidence that you will give today. So the format is for me to run through the witness statements and reports that you have provided to date and then to ask you that question.

So in terms of the statements that you provided to

the inquiry under series 278, that is witness statement 278, you have provided two witness statements: one dated 16 January this year and one dated 4 March this year; you'll remember that?

A. I do remember providing those statements, yes.

Q. Secondly, going back to May 2000, and 3 May 2000 in particular, you provided an account in the form of a letter or report to the Sperrin Lakeland Trust further to their internal review into the case of Lucy Crawford.

A. Was that a letter addressed to Mr Kevin Doherty? Is that the one you're referring to?

Q. No, it's a letter that was addressed to Dr Anderson.

A. I'm sorry, May 2000?

Q. May 2000.

A. Sorry, I misunderstood. 2000, yes. I did a letter to Dr Anderson, yes.

Q. For reference purposes, that's 033-102-293. Then further to that, doctor, you provided some accounts in advance of the inquest. The inquest took place in 2004, you will recall.

A. Yes, I recall that.

Q. Prior to that, you sent to Dr James Kelly, 24 August 2003, a statement, which I can bring up on the screen if you have trouble remembering it.

A. I have one in front of me, which I don't see the date on

and I'm not -- or a number, so I don't know which one you're referring to with this particular one.

Q. That appears to be the one that you provided back in 2000 to Dr Anderson. If we could perhaps have up on the screen --

A. My recollection was that I did my -- my account to Dr Anderson was in terms of a letter, "Dear Dr Anderson", if you understand what I mean rather than that, but I may be mistaken.

Q. There was a covering letter.

A. I see, sure, yes.

Q. If we could have up on the screen then the report or letter you sent to Dr Kelly, 24 August 2003. That's 047-053-148; do you see that?

A. I see that, yes.

Q. It moves into a second page. Perhaps we could have both pages up together, please. Perhaps it's useful to highlight it in passing, we'll come back to it in more detail later today, but by contrast with the report that you provided to Dr Anderson back in 2000, you can see at the bottom of the left hand page, Dr O'Donohoe, an explanation. You say:

"The only respect in which this report differs from the previous version is in respect of the infusion of 500 ml of normal saline, which I did not refer to in the

version I sent to you previously."

Do you see that?

A. I do, yes.

Q. And then you go on, on the right-hand page, to reflect upon some of the medical literature dealing with the whole issue of hyponatraemia.

A. That's right, yes.

Q. So that report was provided to Dr Kelly, but in terms of what eventually went to the coroner and was accepted by the coroner under the coroner's rules, if I could have up on the screen, please, 013-018-066. You can see at the top of the page, "Received pursuant to rule 17". We have obtained this document from the coroner's file.

A. That was the letter I was referring to as addressed to Mr Kevin Doherty.

Q. Ultimately, this document was committed to the standard deposition form, which the coroner uses, but this is the document that appears on the coroner's file. One can see from that document, by contrast with the letter that you sent to Dr Kelly, that the portion at the bottom of the page in which you critiqued the use of 500 ml of normal saline has been removed and that's an issue I will investigate with you later. But it appears that this is the statement that was ultimately sent to the coroner.

A. I can't remember. I don't know what Mr Doherty did with the statement, I don't know that sequence, but I'm not arguing that it wasn't. It is a report I have done, if that's the immediate question in hand.

Q. That's the preliminary question and, as I say, later we'll get into perhaps asking you some questions about what Mr Doherty or yourself did with the statements to get them to that form for the coroner.

Then, doctor, to finish the piece in terms of accounts that you have placed on paper, the Police Service of Northern Ireland interviewed you in April 2005 and you were interviewed over a series of three sessions. You'll remember that?

A. I do remember, yes.

Q. For reference purposes they can be found at 115-051-001. That was a statement provided by you and then a series of interviews, as I said, in 116-008 through to 116-010.

I take it, doctor, that you have a broad familiarity with the accounts that you have provided to date and I ask you: do you wish to adopt those as part of the evidence that you are going to give to the inquiry?

A. Yes, there's no changes that I particularly wish to make to them.

Q. Do you have your curriculum vitae beside you?

A. I do, yes.

Q. And a number of brief questions arising out of that. The reference for it is 315-017-001. As appears from a combination of your CV and your witness statement to the inquiry, you graduated from medical school at University College Dublin in 1978; is that correct?

A. That's right, yes.

Q. And you became a member of the Royal College of Paediatricians in 1986 and a fellow of the Royal College in 1995?

A. I believe that's correct, yes.

Q. As we see from your CV in front of us, your traineeship was broadly conducted in hospitals in the Republic of Ireland, before moving to London?

A. That's correct. Paediatrics exclusively in -- I didn't do any paediatrics in Dublin.

Q. Yes. You obtained a further degree, a Masters degree in biochemistry in 1985 to 1986 --

A. That's correct, yes.

Q. -- before taking up your first consultant post in the Middle East in Saudi Arabia in the years late 1986 to March 1988 --

A. That's right, yes.

Q. -- before returning to the UK and taking up a senior registrar's role in Westminster Hospital, and then moving to a consultant's post in 1992 in Roehampton?

A. That's right, yes.
Q. And you came to the Erne Hospital, as it was then know, in Enniskillen in July 1997?
A. That's correct, yes.
Q. And you took up a post as a consultant in paediatrics?
A. That's right, yes.
Q. As I think you have said, your career has been in the field of paediatrics.
A. Pretty much, yes.
Q. So by the time you came to care for Lucy Crawford in 2000, you had approximately eight years' experience as a consultant paediatrician, approximately three of which had been spent in the Erne Hospital?
A. That's about right, yes.
Q. I think there is a typographical error in your first witness statement, where you stated that you came to the Erne in 1987. But I think you tidied that up in a --
A. That's correct. I made a mistake in that.
Q. And indeed you tidied that up in a second statement.
A. I believe so, yes.
Q. You are now retired from work as a medical practitioner; is that correct?
A. That is right, yes.
Q. And prior to your retirement, doctor, you faced charges before the General Medical Council of serious

professional misconduct --
A. That is correct, yes.
Q. -- arising out of your acts and omissions in relation to the care of Lucy Crawford?
A. That is correct.
Q. And in 2009, some of those charges were upheld against you, and that's a matter of public record?
A. Yes.
Q. It emerged last week, doctor, when the solicitors representing Dr Dara O'Donoghue, who at that time worked in the Royal Belfast Hospital for Sick Children -- it emerged, because information was volunteered, that he is a distant relation of you.
A. That's correct, yes.
Q. You are obviously aware of that?
A. Yes, I am.
Q. Do you know that gentleman well?
A. I wouldn't say I know him well. I have met him in the context of work issues and I think we have -- once we knew who each other was, we have met at family occasions, funerals and weddings and so on.
Q. He was the doctor who was charged with responsibility of signing off on Lucy Crawford's medical certificate of the cause of death.
A. I believe so, yes.

Q. Have you had any discussions with him about that medical certificate?
A. No.
Q. Have you had any discussions with him about the care, treatment and death of Lucy Crawford?
A. No, I don't think the last time I met him, which was probably a couple of years ago now -- I don't know that I realised -- I was aware at that stage that he had signed the death certificate. I hadn't seen him as being someone who was greatly involved, shall we say. I hadn't spoken to him at the time, so, no, I haven't discussed it with him.
Q. You have said, doctor, in your witness statement to us at 278/1, page 14 -- It's question 25.
At question 25, doctor, you're asked how you would categorise the quality of care which was provided to Lucy at the Erne Hospital. You have said candidly:
"I would now categorise Lucy's care at the Erne as inadequate. As Lucy's consultant, I should then have written out the prescription for Lucy's fluid management and I should then have ensured that my junior medical staff and my nursing staff understood that prescription."
And that's presumably a view you continue to hold?
A. Yes.

Q. And indeed, elsewhere in your statement you've expressed your regret about Lucy's death and you've expressed appropriate condolences. The purpose of this part of the inquiry, doctor, is not so much to focus on the quality of Lucy's care, because that strictly falls outside of the inquiry's terms of reference, nevertheless of course we will have to touch upon aspects of Lucy's care, but the main purpose of this part of the inquiry, doctor, is to examine the opportunities that were available to those who had dealings with Lucy, in the broadest sense, and to explore why opportunities weren't taken at the earliest possible stage to identify accurately the cause of her death and to report that into the system; do you follow that?
A. Yes, I understand what you're saying.
Q. You have said -- again if we could have this up on the screen, please -- in the course of the evidence that you gave to the General Medical Council -- if we could have 163-003-017 -- and in the course of the panel's questions to you, doctor, a Dr Smith said to, you just between D and E, if you can follow the lettering in the left-hand margin:
"I would have thought you would have said to Dr McKaigue [that's the doctor you were handing Lucy

over to in the Royal Belfast Hospital], 'This little girl came in, she was moderately dehydrated, we set off such-and-such fluid and, for reasons that I just cannot comprehend, things have gone wrong'. That is basic information, is it not?"

And you can see your answer:

"I think that under those circumstances you start or I tend to start from the other end, which is the problem you have in front of you. The problem we had in front of us was a child who had deteriorated drastically and who needed ventilatory support, which we did not have facilities for. This was the basis for the request for a transfer. It did not occur to me that this was a fluid balance issue. I accept that, in retrospect, that probably should have occurred to me, but I did not leave the hospital thinking that this was primarily a fluid balance issue."

It's around that whole area I wish to spend some time today examining, doctor. Do you have anything to say before we set off on that journey in terms of, broadly speaking, what more you could have done following your treatment of Lucy to shine a light and to identify why her condition had deteriorated?

A. My response, when I was subsequently contacted by the intensive care doctor from the Royal, Dr Crean, he

brought to my attention the fact that he thought there was a discrepancy between the information relayed and what was written. I notified Dr Kelly, who was the medical director at the time, with a view to examining that issue. I didn't see the connection between the circumstances we were dealing with and the fluids. The sodium was 127, that was the number that I was aware of. And one of the statements that you showed me, I have made a comment to the effect that I had considered the possibility of a hyponatraemic convulsion when I had heard about the episode -- I didn't see the episode that she had had -- but I believed that 127 was not a level at which that was a real possibility, a real likelihood. So in that context, it wasn't -- I didn't put the circumstances together to reach the conclusions which have subsequently been reached.

Q. So in short, doctor, is your answer that you feel you could have done no more to eliminate the cause of --

A. I don't think I could have under the circumstances. I had travelled in the middle of the night and so on and so forth. I had notified at the first opportunity -- there are some questions as to the exact time when I spoke to Dr Kelly and so on, but at the first opportunity available I had notified him that a concern had been raised.

I didn't then try to undertake a detailed analysis of the case and possibly I should have. I suppose my concern might have been that would have been seen as an attempt to interfere with what I'd asked Dr Kelly to do if I had devoted too much time to ...

Q. Okay, we have your broad position out in front of us now. As you have said to the GMC:

"In retrospect, it probably should have occurred to me, but it didn't."

And we'll examine in due course whether in fact there were other steps that you could or should have taken.

Before doing that, in terms of your knowledge of the whole area of electrolyte imbalance, hyponatraemia, the importance of appropriate fluid management, those kinds of issues were part of your stock in trade as a consultant paediatrician in the year 2000; is that fair?

A. That's a fair comment, yes.

Q. You have told us in your witness statement to the inquiry, the reference is 278/1, page 2, that:

"As an undergraduate, issues of fluids and electrolytes were introduced in the pre-clinical years."

These issues were taught in what you describe as:

"... a didactic form, but in later clinical years,

through rotations, [you] would have some further discussion of these issues again, mainly in a didactic form, there was a practical application of these ideas in the context."

However, if we go over the page, you say:

"On qualifying, many practical techniques were acquired from standard handbooks and from earlier occupants of these posts. Practices varied from ward to ward, from consultant to consultant, even in the same ward. Much of the learning was on the basis of the usual practice within the different units."

And again, you refer to the standard textbooks.

Broadly speaking, doctor, you would have appreciated that in the management of children with conditions such as gastroenteritis, care was necessary when approaching the issue of intravenous fluids.

A. Yes.

Q. And it would be necessary, in all cases, to approach the management of a child in those circumstances by making an appropriate assessment of the type of fluids required by the child?

A. Yes.

Q. And thereafter, trying to calculate the appropriate rate and overall volume which a child was to receive?

A. Yes.

Q. And there were a number of textbooks or guides that were available to paediatricians to calculate and work from?
A. There were, yes.
Q. You would also have appreciated that giving a child too much hypotonic fluids could have the potential to upset the electrolytes?
A. Yes.
Q. And what would flow from that is the possibility of oedema?
A. Yes, that's one of the possibilities, yes.
Q. Lucy came into the Erne Hospital in the early evening of 12 April, and initially you didn't have any dealings with her; isn't that correct?
A. That's correct, yes.
Q. The doctor on duty, Dr Malik, initially assessed her and made an assessment that she required intravenous fluid management --
A. Yes.
Q. -- but he wasn't able to achieve cannulation?
A. That's correct, yes.
Q. And he called you in?
A. That's correct.
Q. When you were brought in, you applied EMLA cream and managed to cannulate?
A. That's correct.

Q. And you issued what we now know were verbal instructions which you assumed were being recorded by Dr Malik for the intravenous fluids?
A. Yes. Might I just draw your attention to what happened in between, just so you're able to understand when I'm talking about fluids? In treating gastroenteritis there are two ways you can administer fluids: one is intravenously and one is orally, oral rehydration therapy. Usually, it's a combination of sugar and salt, which is absorbed very readily from the intestines, even with those with severe gastroenteritis. When I had applied the EMLA cream, it takes a several time to have the effect -- half an hour, three-quarters of an hour would be the waiting time -- during that time my response was to make up some oral solution which I personally administered to Lucy.
My view has always been that -- and I think it's a widely-held view within paediatrics -- most cases of gastroenteritis up to the degree of severity of Lucy's case can be managed with oral rehydration therapy. It is not the case that it was my intention that it should be solely confined to intravenous therapy, just to be clear. It is not something that I think has been brought out so far.
THE CHAIRMAN: The fluid that is given orally --

A. Oral rehydration therapy?
THE CHAIRMAN: Yes, it has a definite salt content?
A. Yes, it has a particular -- standard composition. It comes in a sachet. You make it up with a standard volume of water, so you have a standard concentration of sodium.
THE CHAIRMAN: But its make-up is not the equivalent of Solution No. 18?
A. It has been given orally, so you can't compare the two. It's not as concentrated as normal saline would be -- I can't off the top of my head remember the exact concentration in comparison. I can calculate it if you wish.
THE CHAIRMAN: Thank you.
MR WOLFE: The instruction that you gave to Dr Malik and Nurse Swift was 100 ml as a bolus --
A. That's correct, yes.
Q. -- followed by 30 ml of 0.18 saline in 4 per cent dextrose at 30 ml an hour.
A. That's correct, yes.
Q. And we needn't go into the detail of that or the thinking behind it, save to remark, doctor, that the approach to the fluids that you adopted, taking into account the oral fluid regime in combination with the prescription that you directed, has been condemned by

the General Medical Council as an inappropriate fluid regime; isn't that right?
A. I don't know that the issue of the oral rehydration therapy was considered in any great detail. I haven't looked at those papers for some years now. The issue, as I understood it, was the poor recording and the inappropriateness of using the regime described as "100 ml of saline followed by 30 ml per hour" or indeed what actually seems -- as I understand it is now accepted as what seems to have now transpired is it was 100 ml an hour of 0.18 per cent, which I would agree is entirely inappropriate. That was never my intention.
Q. If we could maybe have up on the screen, to clarify the point, 163-002-004. What you're going to see up on the screen is the charge or part of the charges that you faced. Perhaps could we have the previous page up alongside it, 003.
If I can read from the bottom of the left-hand page:
"On April 2000, you made a record of what your fluid management plan for patient A on 12 April 2000 had been as being a bolus of 100 ml over 1 hour followed by 0.18 sodium [let's call it Solution No. 18' for short]."
Then the charge at paragraph 6 is:
"The fluid regime set out at paragraph 4 above was ... (c) not appropriate in any event."

A. Sorry, I've lost track. Can you remind me where you're --
Q. I can.
A. Just the last sentence.
THE CHAIRMAN: If you jump to paragraph 6(c):
"The fluid regime was not appropriate in any event."
A. Thank you.
MR WOLFE: So what you explained to the GMC, you may remember, doctor, is that you had a particular plan for intravenous fluids which took into account the fact that she already had some oral fluid therapy; isn't that right?
A. That's right, and again, the observation was that she took it -- I think I said something like "enthusiastically retained it". Again, another assumption that I made that, in retrospect I should not have, was that the nursing staff would have continued what is standard practice in gastroenteritis which is to continue to offer rehydration therapy on an ongoing basis, and that whatever volumes were taken would then be taken into account when the situation was reviewed on an ongoing basis.
Q. Yes. The point I'm making, before we move on, because we don't need to deal with this in any great detail, is the fluid regime that you adopted and directed to the

nurse and to the doctor was criticised and upheld, if you like, as being inappropriate. That is charge 6(c).
A. Yes.
Q. But as we know, as a matter of fact, this child did not even get the inappropriate fluid regime that you had intended for her.
A. If I might, just to complement it, did the child get the more appropriate fluid regime, which I had intended, which was ongoing oral rehydration therapy?
Q. That might be a matter of conjecture, but certainly --
A. If you're talking about what my regime was intended to be, then if you look at the fact that I made up the solution and gave it to her myself, that was a relatively unusual thing and that would not be a normal part of nursing practice. I thought I had very forcibly made the point that in this particular case that oral rehydration therapy was appropriate. She had been some two-and-a-half, I think, or three hours before I was called, during which time she had been given very little fluid. And what she had been given as I understand, as I remember, was, for example, diluted orange squash, for example, which is of no value in the context of treating somebody with gastroenteritis. What should have been done was what I did, which was the oral rehydration therapy. Now it may be that I didn't make

explicit enough my view that that should have been done and that should have been continued, but I thought the demonstration of me having done it and administered it myself would have been enough, in practical terms, to say: we continue with standard management of gastroenteritis in this child. There was no instruction given that she was not to be given any oral fluids, for example. But why that decision was taken, I don't know, nor by who.
Q. Yes. Happily, doctor, that isn't an issue that concerns us, so let me move on from there. As a matter of fact, intravenous fluids for this child commenced at 10.30 pm or thereabouts on the evening of 12 April 2000.
A. I believe so. I don't remember the exact time, but that sounds right, yes.
Q. We know from in or about that time, she was infused with 100 ml per hour of Solution No. 18.
A. I believe so, yes.
Q. And those fluids continued until after her seizure at or about 3 am on 13 April, when Dr Malik stopped the use of the Solution No. 18 and moved to a regime of normal saline, which was run in freely.
A. I believe so. I'm not entirely sure at what time the normal saline was started. I don't think, even in retrospect, I'm exactly clear when that was started, but

the timings are approximate, as you say.
Q. You say that because, in fact, at one time or another, you say that you were led to believe that the normal saline was commenced at or about 2.30, following the first episode of diarrhoea. That was a view that you've expressed from time to time and you seem to be relying on information supplied to you by Dr Malik to have reached that view.
A. That's correct. I don't remember the exact terms of the question, but it was to do with the fact that the intravenous fluids were running when I noticed they were running freely, that is to say not controlled by an infusion pump. My recollection was I asked him how did that -- what was the reason for that. And he referred to the episode of diarrhoea that she had had.
Q. Yes. That was the fluid situation as a matter of fact. What you had directed had not been followed, she got a combination, one after the other, of an inappropriate amount of Solution No. 18, followed by an inappropriate amount of normal saline; isn't that right?
A. That's correct, yes.
Q. In terms of Lucy Crawford's condition, when you came and saw her on the evening of 12 April, you would have recognised that she was dehydrated; isn't that right?
A. Yes.

Q. And a number of factors suggested that. First of all, there was a history on admission of her having been vomiting everything that she was eating and drinking.
A. Correct, yes.
Q. You were aware of a capillary refill in excess of two seconds?
A. Can I say I'm not entirely sure that is actually true? That is taken from Dr Malik's recording. He uses a symbol -- are you familiar with the symbol for less than or greater than that? -- and in actual fact it's not terribly uncommon for people to use that symbol in the wrong direction. To record something as a capillary refill of greater than 2 seconds doesn't make any sense because if you're counting 1, 2, 3, 4 -- which is how you count it -- you would record capillary refill 3, 4, 6, whatever it was.
I can't say that I know this for sure, but my belief is that Dr Malik intended to write "less than 2 seconds". I don't believe writing "more than 2 seconds" in that context makes any sense. If it's 3, that's a huge world away from being 6, for example, or 7, if you understand what I'm getting at. So to write "more than 2" really makes no sense and it is a symbol which I quite commonly see being used incorrectly.
Q. Leaving that point to one side, what were the other

factors, if any, that you took into account in identifying dehydration as an issue here?
A. One of the most important ones was I made up the oral rehydration therapy solution, as I indicated. I then gave it to her, and she took it, and I think the word I used was enthusiastically. I don't know whether you have tried to taste this solution yourself, but it's not something you take unless you're dehydrated and you need the fluids. First of all, it told me she was dehydrated, second of all she was alert and conscious enough to respond when offered fluids. So even in that small gesture, that small intervention, there was an enormous amount of information which has not been maybe acknowledged that would tell you a lot about the situation. The presence or absence of thirst, for example, is recommended by the World Health Organisation as one of the ways of looking at dehydration. If a child can't respond when you offer fluids, then the child is becoming so unwell that it's becoming shocked. If the child doesn't wish to take fluids, the standard view is that the child isn't dehydrated enough for it to be terribly urgent, if I can put it like that.
Q. Urea was raised at 9.9.
A. That's correct.
Q. Is that a factor?

A. That is a factor. It is not the case that the level of urea parallels the degree of dehydration. It is not -- and I think this is uncontroversial when I say this. It is not a good indicator of severity of dehydration. People try to -- because it's a number, there is often a tendency to take it that because it's a number, it's therefore objective and tells you more than normal clinical examination does, but that is not the case. But it does indicate that she was dehydrated if that's the question, but it doesn't tell you about the degree of dehydration.
Q. In any event, taking the factors that you took into account, you recognised that this was a child with moderate dehydration?
A. Moderate dehydration would be the usual description, yes.
Q. And the fact that she was of moderate dehydration is a pertinent factor to be taken into account when assessing the appropriate fluid regime for a child?
A. It is, yes. The degree of dehydration is important.
Q. And publications such as Advanced Paediatric Life Support, they tell us that in relation to moderate dehydration, you need to calculate an amount for replacement fluid; isn't that right?
A. That's correct, yes.

Q. And obviously a type of fluid for replacement?
A. That's correct, yes. It doesn't -- and it's one of the limitations of the approach adopted by the Advanced Paediatric Life Support is that it is not a manual for the treatment of gastroenteritis. So it doesn't, for example, refer to oral rehydration therapy as far as I can recall, at the moment -- I haven't looked at the manual for a little while. So as an indication of how to treat gastroenteritis it is incomplete. I'm not arguing with the general principles that are outlined in it, but in terms of treatment of gastroenteritis it is an incomplete guide as to how you should try to treat gastroenteritis.
Q. And as well as replacing fluid with the appropriate type of fluid, there's also a need for ongoing maintenance?
A. There is, yes.
Q. You would presumably agree, doctor, that 100 ml per hour of Solution No. 18 was not the appropriate fluid for this child?
A. Yes.
Q. You recognised the need to give normal saline --
A. Yes.
Q. -- as part of the --
A. I used the word "bolus" and I was very clear -- and I think I have been on a number of occasions -- as

saying I should have appended to that the words "normal saline". I didn't because -- and again, I have to accept this is a defect on my part. My presumption was that "bolus" was synonymous with something like normal saline. You had some discussion with Dr Auterson about the alternatives, I think, in recent times, but in practical terms, in paediatrics, it comes down to normal saline.

Q. In terms of the fluid that was used from about 10.30 that night, you will have observed the views expressed by, among others, Dr Sumner --

A. Yes.

Q. -- at the time of the inquest?

A. That is correct, I have, yes. I've seen his report, yes.

Q. If we could have up on the screen, please, his opinion. It's 013-036-140. At the top of the page he says:

"4 per cent dextrose/0.18 per cent saline is a totally inappropriate fluid to make up deficits from vomiting and diarrhoea. The dextrose is immediately metabolised and so this solution is effectively providing only water. An appropriate fluid would be normal 0.9 per cent saline with a potassium supplement."

Is that a view with which you would agree?

A. There's nothing about it I disagree with, if I can put

it that way, but I'm not sure -- yes, yes -- no, I agree with that, yes. There are parts of it -- for example, the last line is about ongoing losses and I'm not sure if he was -- in that, I think the reservation I had was the possibility that he was suggesting you could predict was the ongoing rate of loss was going to be and therefore you could add more on top of that for a prediction of ongoing losses, which is an approach some people have suggested. I think that was the reservation I had about that, but the broad outlines of what you have read out I'm agreeing with.

Q. I suppose the implication there is that you would keep a child under close observation and if there's evidence of severe vomiting or diarrhoea, that you might re-examine the position?

A. Yes, it's not a -- a fluid regime in the context of gastroenteritis can't be something that you write down once and that's it for the next 24 hours. The diarrhoea and vomiting might stop, in which case you wouldn't force a child to continue not to eat, for example. The diarrhoea or vomiting might have worsened substantially, in which case you would have to change your approach. So you start out with a regime and you have to be open to the possibility of continuous modification.

Q. And then, doctor, one of the issues that emerged at the

inquest, of course, is the connection between giving this totally inappropriate fluid, which it appeared to Dr Sumner had been given to make up deficits, that was his impression, that that's what had been done here.

A. Yes, I believe that was his impression.

Q. And his impression, just so that we can understand where we're going from this, was this was a child who was dehydrated, she had an episode of vomiting after being admitted to hospital, followed by an episode of diarrhoea, and through all of that period of time she was on Solution No. 18.

A. Yes.

Q. And so taking the dehydration and these gastric losses into account, his point is Solution No. 18 is totally inappropriate.

A. Yes. I believe that is his point, yes.

Q. And then we need to understand, doctor, what is the problem caused by this inappropriate fluid regime. And Dr Sumner again sets that out if we can have 013-036-141. What he says, about halfway down that page, is:

"She came into hospital somewhat dehydrated from vomiting and there was additional loss from diarrhoea. So she was given an excess volume of intravenous water to replace these losses.

"I think that the excessive volumes of dextrose/saline in the face of losses of electrolytes from vomiting and diarrhoea caused an acute serum sodium dilution, which in turn caused acute brain swelling."

So that was the mechanism for the cerebral oedema, leading to Lucy's untimely death.

A. That is correct, yes.

Q. And that's what, as we know, was accepted by the coroner as part of his verdict.

A. I believe so, yes.

Q. And again, I trust, doctor, that you accept all of that?

A. I do. If I may say, Dr Sumner's was the first analysis of the situation that I had seen which clarified it in the way that you have just put. The only other point I would draw your attention to is that the serum sodium he's referring to as being hyponatraemia is less than 128. And I think in his original statement, when he does that, he references his own textbook. So you're talking about a level of 127, which is a unit of one below the level that Dr Sumner says constitutes hyponatraemia, so, if I can put it like this, just having shaded into the hyponatraemia. The thing that Dr Sumner pointed out, which I hadn't fully appreciated, was that the use of the normal saline would lead to an increase in the serum sodium, and therefore the number,

which is 127, might not be a reflection of what had been in place at the phase when things went wrong.

I think my misunderstanding was possibly, although I wasn't conscious of it at the time, possibly thinking, well, if -- if somebody had asked me the question, I imagine I would have said something like: if the sodium comes up, then the cerebral oedema should reduce. If the thought had occurred about the sodium having changed, I would have initially expected the child's condition to improve, although once you realise it's a matter of coning, then the situation does become irreversible, so that logic doesn't then apply.

Q. That's one issue, the fact that normal saline had been run in, which may have skewed the results, if I can put it in those terms. A second issue, which we'll look at and unpack in a moment, is the question of the rate of drop, in other words she dropped from 137 to 127 in a short period of time.

A. Yes. Dr Sumner expresses his view very clearly and, if I may say so, very convincingly. Some of the other publications on the matter of hyponatraemia and -- I think I may be quoting the name incorrectly, but Arieff is the name which sticks in my mind from my reading -- was somebody who had done a lot of research on hyponatraemia, in adults I accept, rather than

children. He was, as I remember, very enthusiastic -- that maybe is not a good word -- in the belief that the rate of fall was not important. So I have come to accept Dr Sumner's -- particularly Dr Sumner's conclusions as the best explanation for what happened. I'm not sure that if you step back to the time when it did happen, even if it had occurred to somebody -- and it didn't occur to me, I'll be honest -- I'm not sure that I would have necessarily seen it in the same light as Dr Sumner has done.

Q. Let me just move to those issues in a moment, but what I wanted to ask you is this: you say it wasn't until you saw or perhaps heard from Dr Sumner in relation to these points --

A. I saw the report. I have never spoken to him, I don't think.

Q. It was only when you saw the report then that you became aware, convincingly perhaps, of the connection between the fluid regime and the cerebral oedema; is that fair?

A. Yes, I think that would be fair comment.

Q. And you would have had access to that report, I understand, via Dr Kelly. He was supplying it to you in preparation for the inquest because he had been sent it, I think, by the coroner. That would have been 2003; isn't that correct?

A. I don't believe I saw that report or any of the documentation that was to be presented at the coroner's inquest until very shortly before the inquest. To the best of my recollection -- and this is not a very certain recollection -- I didn't see this report until after the inquest. My recollection is that the Trust held a meeting with a senior counsel and invited a number of members of staff who were to attend the inquest to attend and then gave us a copy of, I think, a two-page statement, a two-page summary of what the Trust had done in terms of the Trust's enquiries. I'm not sure -- to the best of my recollection I didn't see Dr Sumner's report before the inquest. I may be mistaken on that, but ...

Q. It was the case, doctor, in 2002 that Dr Kelly, on behalf of the Trust, had instructed the Royal College of Paediatrics and Child Health to carry out a second external review or a second review, this time a review that involved coming into the Erne to interview various staff about what had happened in various situations, including around the whole care of Lucy; you'll remember that?

A. I do, yes.

Q. And in a report published for the Trust in or about August 2002, the Royal College concluded that Lucy

had died of previously unrecognised hyponatraemia; do you remember seeing that report?

A. I'm sure I have seen the report. It's not one that I can call to mind at the moment. I'm sure I must have been shown it.

Q. You have said to us that it wasn't until 2003 or shortly before the inquest that you drew the connection between the fluid regime and the death of Lucy. Does that not --

A. The fluid regime leading to a serum sodium which was much lower than the one that had been recorded and subsequently producing the cerebral oedema. That sequence of events, which is what I understand is broadly accepted -- and it seems correct to me to be the circumstances -- that connection -- my recollection is it was Dr Sumner's report which was the most convincing account of that.

Q. In advance of seeing Dr Sumner's report, were you not aware that it was the process leading to hyponatraemia that caused the cerebral oedema?

A. As I understand it, it's the hyponatraemia which causes the cerebral oedema. It changes the concentration of sodium on the different sides of the brain, thereby, as it were, sucking water into the brain, if I can put it like that. That is my understanding. Again, if I've

misunderstood some of the reports -- but that is my understanding of the situation.

Q. The sole point I'm putting to you is this: there were two Royal College reports.

A. That's right, yes.

Q. The report that emerged in 2002 is a very clear statement that hyponatraemia was the cause here. And what I'm asking you is: was that not within your knowledge well before the time of the inquest?

A. I think the serum sodium they were referring to was 127.

Q. Yes.

A. And if I remember correctly, there was nothing to say that they believed that the sodium had fallen further than that.

Q. Yes.

A. I can't remember 2003 well enough to say for sure, but I suspect if you had told me that a serum sodium of 127 had produced this profound degree of cerebral oedema, I don't think I would have believed it, to be honest about it.

THE CHAIRMAN: Sorry, doctor, Dr Sumner's report simply refers to the possibility that the reading was lower than 127.

A. That's right, yes.

THE CHAIRMAN: He's referring to it only as a possibility.

A. Yes.

THE CHAIRMAN: But what he does say is that the drop to 127, the rate of that drop and then the exacerbation of the situation by giving 500 ml of normal saline was the combination which killed Lucy.

A. Again, I may have misunderstood and maybe the degree of convincingness of that report may have been based on my seeing what Dr Sumner had said and saying there is a possibility that it was lower than that. He can only say a possibility in the sense that there was no measurement. He did say that he believes that the fall, rate of fall, was relevant. What I have tried to say is my understanding -- I can't remember when this understanding changed -- was that there was a strong view -- for example Arieff is the name that I have in my mind -- that the rate of fall was not the determining factor. In retrospect, again, that may seem illogical or even unreasonable, but my understanding is, at the time -- the context in which hyponatraemia was discussed in practical paediatric terms, I think, at that stage, was of diabetic ketoacidosis and there were changes being made in fluid regimes for diabetic ketoacidosis, but those making those changes were very careful to say that they didn't believe that it had been well-established, you know, that the various factors

that contributed to the hyponatraemia and the problems it causes. So I don't think that at the time in 2000 it was as clear as it has become since that it is now accepted, as I understand it, that the rate of fall is an important issue. I don't believe that was widely accepted at the time.

THE CHAIRMAN: Thank you.

MR WOLFE: Can I bring you then to 3 o'clock in the morning of 13 April? You are summoned to the hospital from your home because it was reported that Lucy had suffered some form of convulsion.

A. That's correct, yes.

Q. And you made your way there quickly.

A. Yes, there wasn't a lot of traffic. I don't live very far away. I didn't record how long it actually took, but it was promptly.

Q. And upon your arrival, you were presumably greeted by a scene of some panic?

A. Yes.

Q. And you would have observed that Dr Malik was manually ventilating the child?

A. He was bagging in the sense there was a bag and mask. The child wasn't intubated until Dr Auterson -- my recollection is that I attempted intubation and was unsuccessful and then waited for him to arrive to

complete that.

Q. And at that time, there was a drip up, Lucy was in receipt of intravenous fluids.

A. That's right, yes.

Q. And you would have observed at that time that the fluids were now normal saline?

A. That's correct.

Q. And plainly that was not something you had prescribed or intended when you left at 11 o'clock?

A. If I can go back to the remark I made earlier when I talked about a bolus, my understanding of the word "bolus" -- and again I'm accepting that I didn't append the term "saline" to it, but to me that would be synonymous with saline.

Q. Did you expect that the bolus of normal saline would still be in situ at that time?

A. No, I hadn't thought it through. I don't know when I became aware that that was actually a change from Solution No. 18 to normal saline. I had some difficulty, maybe is the best way of putting it, in getting a clear account from either Dr Malik or the nursing staff.

Q. Yes, but just so I understand your position, it had been your direction to Dr Malik to give a bolus at or about 10.30 over the period of an hour?

A. Yes.
Q. And then to commence a regime at 30 ml per hour of Solution No. 18?
A. I don't know, and again, I may be mistaken, I don't know that I specified Solution No. 18. It was the commonest solution in use and therefore I'm sure I would have anticipated that it would be Solution No. 18. But I certainly wasn't there to see Solution No. 18 being put up, so when I saw the saline I did talk to Dr Malik to try to understand what was happening. I didn't pursue the issue of what had happened at 10.30, 11.30, and so on and so forth because it was, as you say -- did you used the word "panic" or whatever? -- and it was such an enormous and unanticipated deterioration, that it was very difficult to know how to start to deal with the situation.
Q. Could we just turn back to a document we opened earlier? It's in your letter to Dr Kelly, 24 August 2003, where you explain in some detail about the normal saline that was being run in at that time. 047-053-148. If we could look at the bottom half of the page:
"I was next called at approximately 03.00."
You say:
"Since she showed no signs of recovering by the time I arrived and since there was a history of profuse

diarrhoea, I took a specimen for repeat urea and electrolytes. My recollection is that Dr Malik had started the intravenous normal saline before calling me and that the 500 ml given was virtually complete before I arrived."
If we could stop there and move to the bottom of the page and we'll come back up again:
"The only respect in which this report differs from the previous version is in respect to the infusion of 500 ml of normal saline to which I did not refer in the version I sent to you previously. Since this is approximately 50 ml/kilogram, a much larger volume than I would use, I believe this had been started following the first episode of diarrhoea, i.e. before the convulsion."
So that was an assumption on your part?
A. Which was an assumption?
Q. That it had been started after the first episode of diarrhoea.
A. Yes. My recollection was it was based on my attempt to elicit from Dr Malik what had happened about the rate of saline. He referred to diarrhoea. My recollection is that the diarrhoea preceded the convulsion and that's the basis for my conclusion.
Q. In any event, in terms of the sequence of events here,

you're coming in and you are realising that these fluids are being run in freely without being checked by a pump?
A. That's correct, yes.
Q. And it would have been your perception that this was unusual?
A. I hadn't seen it on the children's ward in the Erne prior to that. I have seen it on a subsequent occasion on the same ward.
Q. And it would appear from what you're saying that the bag, 500 ml, was virtually complete before you arrived?
A. Before I first noticed it. I couldn't in retrospect identify exactly how long after I arrived I saw that. The initial situation was one of a child who was being bagged by the SHOs. In practical terms it was a resuscitation situation. To be honest, I can't say how long it was before I made that observation. It may have been straightaway, but it may have taken some time. I honestly don't know.
Q. If you had been in the hospital otherwise than in this emergency situation and had thought about checking up on Lucy, you would have expected to see Solution No. 18 in place at 30 ml per hour?
A. I wouldn't necessarily have presumed what would have been running in the sense that, as I mentioned, I had anticipated oral rehydration fluid would be used. There

could be worsening or improving of the situation in gastroenteritis. So if I had come back two or three hours later and the situation was, from the fluid point of view, was unrecognisable from what I had left it, that wouldn't surprise me hugely because if circumstances changed, people would have to change what they're doing. I wouldn't have considered it abnormal to see a child with gastroenteritis a couple of hours later who was having a different fluid regime from the one I had started previously.
Q. The regime you were in a position to observe at some point after arriving was unrecognisable from what you had --
A. It was free-flowing saline, which I certainly hadn't directed, no.
Q. At that time, did you seek to obtain any background as to how we had reached this position in terms of the fluids?
A. I talked to Dr Malik. My initial response was in terms of a resuscitation situation and you have referred to it as being -- I'm not sure if I'm misquoting you when you said a panic situation. But it was a very difficult situation to manage and control, particularly in a ward like the children's ward, where it doesn't occur very frequently. So that was where my main efforts were

directed. I think I said I attempted to intubate Lucy and was unsuccessful. I may have had to call Dr Auterson myself, for example, and to interrupt what I was doing since it was common practice among the anaesthetists not to wish to speak to anybody other than consultants if they were being called in out of hours, for example. So there were a number of things that I was trying to do simultaneously. I didn't, and I think I have said this before, have a clear understanding from the nursing staff, for example, as to which amongst the nurses would be able to tell me exactly what had happened. And you have had access to the General Medical Council records and I'm sure you have seen the account from the nursing staff to the effect that there was no system of allocation of nurses to patients at that stage. I think the phrase one nurse was, "We all used to just muck in", I think was the phrase she used, which is not a circumstance I would have been aware of, nor would I have approved of it.

So looking back in retrospect, the fact that I had such difficulty having a clear-cut picture of what was going on is not a surprise at all. It may not be something that you would anticipate.

Q. Just to be specific, in terms of the fluids, did you get a clear picture of what fluids she had received prior to

the convulsion?

A. No, I don't think I got a clear-cut picture.

Q. At that time, during that period of resuscitating or seeking to resuscitate Lucy, you didn't get a clear picture?

A. Again, my recollections were I had accounts from individual nurses, but when I tried to ask -- and this is your observation and so on and so forth -- it was not something that I found myself getting an entirely satisfactory answer to. I have no recollection the following morning and when I left the notes, when I informed Dr Kelly, of physically having seen the fluid chart during the course of that episode. That does not mean that I didn't see it, but it would be unusual not to have a clear-cut recollection, you know, physically of what the structure, almost a snapshot ... I think it's possible -- and I can only say it's possible -- that I wasn't shown the actual document. I was told, given accounts, and when I asked to see the document I am not entirely sure that the document actually was made available to me.

Q. Were you given an account which said, in terms, "This child has had Solution No. 18 at a rate of 100 ml per hour for three and a half/four hours"?

A. I can't remember getting a clear-cut statement. I think

it was -- I asked one person, I'll have to ask the other person who's on her break, and so on and so forth. I don't remember getting a clear-cut account at that stage, no.

Q. So were you in the dark in terms of the fluids that she had received, which we now know precipitated this convulsion?

A. I wasn't aware until Dr Crean rang. Dr Crean rang the following morning to draw my attention to the discrepancy between what I believed had happened and what he had reason to believe had happened, either on the basis of what the handover had been or what he had seen recorded somewhere else. That was a surprise to me.

Q. So until Dr Crean phoned on the morning of the 13th, you were proceeding on the basis that the fluids had been administered as you had intended them to be administered?

A. Until such time as free-flowing saline had been instituted.

Q. One of the steps that you took during that period was to arrange for repeat urea and electrolyte tests.

A. That's right.

Q. And when one takes blood for blood tests, electrolyte tests, the tendency is not to take them from the arm

where the fluid is running into; isn't that right?

A. You would certainly try to avoid that if at all possible. It would give you unreliable results if you did that.

Q. Because of the risk that the blood will be infiltrated by some of the fluid?

A. Yes.

Q. Applying that principle more broadly, would you have thought about the fact that this child has been receiving a great quantity of normal saline for some time and that that might affect the ultimate results I get back?

A. I don't think that possibility occurred to me. Normally when you give somebody normal saline, it won't change their electrolyte concentration substantially. One of the reasons why a lot of people have retained the use of 0.18 per cent saline, particularly in the United States, and still continue to defend the practice now, is their belief that if you gave normal saline to children, because of the nature of their physiology, their serum sodium would inevitably increase. That is not necessarily the case.

Let's say for the sake of discussion, if Lucy's serum sodium had been 127, if it had been taken three hours earlier, she had had the normal saline and

it was still 127, that wouldn't have surprised me very greatly. It would have maintained the situation.
Q. Yes.
A. I'm not suggesting that I believe that to be the case, but looking back, the most satisfactory explanation is that the serum sodium was probably significantly lower, so that's not what I'm trying to say.
Q. You knew at that time, of course, that the serum sodium was running in before you took the bloods.
A. The intravenous sodium, you mean?
Q. Yes.
A. I believe so, yes.
Q. I should have said "the normal saline".
A. That's right, yes.
Q. In terms of the notes that you made around this time, you didn't, in your note, give any timings or account for the sequence of the normal saline being given, followed by the bloods, or anything of that nature, did you?
A. No.
Q. Do you think that was an omission?
A. I should have recorded the time at which I took the blood. That would be a common thing to do. It's not something that I would have always done at that stage, and in the normal course of events it wouldn't be of any

great importance to record at the time whether you took the specimen one hour ago or two hours later. It would not normally make that much difference, but it is an omission in somebody who is seriously ill like that not to record the time at which you took specimens.
Q. Dr Auterson was summoned to assist you in stabilising the child; isn't that correct?
A. That's correct, yes.
Q. And even before Dr Auterson arrived, you were aware that the child's pupils were fixed and dilated?
A. That's correct, yes.
Q. And so you were faced with a situation where there had been some catastrophic neurological development.
A. That's correct, yes.
Q. And with her pupils fixed and dilated, the prospects for Lucy, even at that point, must have appeared to you as bleak?
A. Yes.
Q. Dr Auterson has given evidence to the inquiry. I'm not sure if you have had an opportunity to examine his transcript.
A. I have seen his statement. I got access to his transcript last night and I went through as much of it as I could, but I can't say that I'm entirely familiar with the details. I have tried to read it.

Q. He's made a number of points. First of all, he said that the electrolyte values came back via a nurse over the telephone at some point during the resuscitation of the child. In other words, you were told and he was told that there was now a serum sodium of 127 and that potassium was low at just something over 2. Do you remember receiving that information?
A. I remember knowing about it, but I don't remember at what stage I received the information. I don't know whether he received it first. From what I read, from his written statement, it does appear that it was relayed to him by a nurse first and presumably subsequently to me, but I don't remember the specific detail.
That result could be acquired in two different ways. One, it could be acquired over the telephone. Secondly, it could be acquired via a computerised system. If I was looking for the result, for example, one of the things I might have -- Dr Malik or anybody else would have done would have been to go to the computer terminal to try to identify if the number was available. Sometimes you could acquire the results from the computer system. The technician who had done the test would put the results into the computer system before then ringing the ward. So I am afraid I cannot

disentangle at what time that result became available to me at, nor indeed how.
Q. Do you think you knew it before leaving for the Royal?
A. I believe I did, yes.
Q. He has told the inquiry that observing Lucy's neurological condition, receiving the results of the electrolyte tests and considering the fluid balance charts, he was able to conclude that the fluids had caused hyponatraemia, which in turn had caused the cerebral oedema.
A. That was my understanding on reading his witness statement and from what I could gather from the transcript that I was able to work through.
Q. In the transcript of last Friday, the reference is page 136, he said that at the time of resuscitation you knew what the electrolytes were and he assumed that you would, just like him, join up the dots and be in a position to work out that too much fluid had been given to this child.
A. From Dr Auterson's statement, he is saying that he was, I think -- I hope I'm not misunderstanding -- he was saying he was very clear from very early on that that was the sequence of events. I have to say that I was very surprised to see that, for a number of reasons.
First of all, if he had known that that was the

issue, then one of the natural reflexes would have been to discuss it with me, and if I was dismissive of the issue, if you're that clear about it, if it was just a distant possibility and I said, "No, I don't think that is really relevant", a discussion might terminate very quickly. But if you were as clear as he was, and I was not accepting of that idea, it's the kind of situation where one would -- I would expect him to be -- he is very capable of being as forceful as is necessary, if I can put it like that, having known him for a number of years now.

The second thing I would say is that if somebody believed that a patient has deteriorated drastically due to hyponatraemia, low sodium, one of the options is the use of hypertonic saline, that is to say a very concentrated solution of saline. Normally it would be referred to as 3 per cent, something of that sort. So 3 per cent more concentrated than would be normal saline, for example. And you would administer that in the hope that it might help improve the situation.

I have no recollection of Dr Auterson suggesting that, and indeed Lucy was transferred to the intensive care unit, where treatment would normally be dictated by the anaesthetist. So if Dr Auterson was clear in his mind that that was the case, I would be very surprised

that he wouldn't have thought to have administered hypertonic saline, even if he didn't believe it was going to make any difference, even if you believe the situation is probably beyond retrieval, it's the sort of situation where any straw that becomes available tends to be grasped at.

If I may indicate one straw that Dr Auterson did grasp at, which wasn't referred to and it, I think, puts that idea in context, which was that during the course of the episode that was thought to be a context, Lucy had been given rectal diazepam, which is a standard medication for treating convulsions. Dr Auterson, during the course of the resuscitation, asked for a medication called -- I believe it's called Animate, I think is its trade name; flumazenil is its proprietary name --

Q. To reverse --

A. To reverse the effects of diazepam, that's right.

There was nothing to strongly suggest that doing this, that the diazepam had been of any great significance in the episode that had been seen, but clearly, even a straw as desperate as that was something he was willing to grasp. So if he was convinced that there was hyponatraemia, then the other straw that would automatically come into view was the administration of

concentrated hypertonic saline, as I have said, and that did not happen as far as I'm aware.

Q. Do I infer from what you are saying that you do not accept Dr Auterson's account of being able to make this assessment at the time?

A. I can't -- in the context, as I've explained it to you, I can't understand how he would have been clear. I'm not talking about the possibility -- about the idea that a possibility might have occurred to him. I can accept that, and in the heat of the moment no reference is made to it and you don't think it through to the question of any possible treatment. But to be clear as I understand him to be saying from the written transcript, to my mind it's inconceivable that he would not have tried to make it clear. First of all to me or, if he didn't get round to that, to have tried to initiate what was, I think, even at that stage, accepted as a very reasonable form of treatment.

THE CHAIRMAN: I think it's accurate to say that he described it as a strong suspicion.

MR WOLFE: He moved from a strong suspicion, I think, to, over a period of days, becoming firmer in that view, but can I pick up on one of the points that you've made that he didn't suggest 3 per cent saline as a treatment? It is the case, doctor, that shortly after Dr Auterson's

arrival you made contact with Dr McKaigue.

A. That's correct, yes, in the Royal.

Q. Of course.

A. Yes.

Q. And he suggested a treatment regime that involved mannitol; isn't that right?

A. Mannitol and intravenous antibiotics, which we hadn't administered ourselves at that stage.

Q. And the mannitol was intended to -- the purpose of mannitol is to excrete water.

A. That's right. It would be referred to as an osmotic diuretic and is used in any situation where you think there's a possibility of cerebral oedema.

Q. That was the treatment that he suggested?

A. That's correct, yes.

Q. Were you in a position to tell Dr McKaigue the fluid regime that Lucy had received before then?

A. I think I've said that I wasn't able to get a very clear-cut picture in my own mind, so I can't actually say how clear the picture that I relayed to Dr McKaigue would have been. Normally in that context it's a request for a transfer and you give a brief outline indicating the reasons why the transfer seems appropriate. There is often what we might call a question-and-answer session followed by suggestions from

the person on the other end of the phone. I didn't think -- my recollection of the conversation was that there was no information which he was keen to have that wasn't provided for him, but I don't remember any of the details of that conversation.

THE CHAIRMAN: Just before you go on with that, Dr Auterson has specifically said that when you and he were trying to resuscitate Lucy, that he had the strong suspicion which he discussed with you while the two of you were resuscitating Lucy at about 4 am, as he describes it; do you agree with him or not?

A. No, I do not. If I may just extend my comment, if that's all right --

MR WOLFE: Perhaps before you do so, if we could have up on the screen just what he said. If we could have Friday's transcript? Friday was 31 May, page 139. If we go through each of the references. If we start at page 136.

At the bottom of the page, in answer to a question from the chairman:

"I discussed the possible reason for the thing only with Dr O'Donohoe at the time of the resuscitation and he was aware of the electrolyte results and I assumed, obviously wrongly, that he would mention this at the review."

If we go over the page --

A. Might I comment on that?

Q. Yes.

A. Dr Auterson in his account, as I have read it -- and maybe I have misunderstood some of them -- there were times in which he was saying I said, "This, this, blah blah blah". Dr Auterson's accounts are at best, I would say, very vague. There's a reference there, for example, if I may, to "the thing".

THE CHAIRMAN: I'm not asking for a general commentary from you on Dr Auterson's account. We're asking you for your specific responses to questions, doctor. So let's confine your commentary today on the questions which are asked. I do not want your analysis of what Dr Auterson said. We're asking you specific questions, and the first question which arises from this is that he said:

"I discussed the possible reason for the thing only with Dr O'Donohoe at the time."

By which he means the time of the resuscitation.

A. That is not correct.

MR WOLFE: Page 137 then. Line 7. The question posed is:

"Question: So it is your evidence that you believe that Dr O'Donohoe recognised, at the time when Lucy was being resuscitated, what had gone wrong?

"Answer: Yes."

And the background to that is what he has said in his witness statement to the inquiry. Why he thought you had recognised what had gone wrong was because of the combination of the three factors, the neurological condition, the fluids that had gone in, and the electrolyte results. And all three of those factors, he said, would have made it obvious to himself, yourself, and Dr Malik about what had gone wrong here.

A. If the question is -- I'm sorry if I was giving the wrong impression. I am trying to answer the questions as I hear them. But if the question is, "Was it obvious to me at the time?", the answer to that question is no.

THE CHAIRMAN: What seems curious to me, to say the least, is that Dr Auterson seems to have understood in the early hours of 13 April what fluids Lucy had received, but you tell me you didn't know. How could Dr Auterson know the fluids which Lucy had received and you not know?

A. I'm trying to be as clear as I can in response to what Dr Auterson has said. As I understand it, he's saying he was very clear about exactly what had happened. I find that very difficult to believe if, for no other reason, if I may say so, than I would have expected that he would have attempted to initiate the treatment I have referred to, the hypertonic saline.

THE CHAIRMAN: That's a conclusion which you draw from the actions which he took. But he says what led him to form that view was the condition which Lucy had arrived at hospital in, the fluids she received, and the state she was now in. The condition she had arrived at the Erne Hospital in was undisputed.

A. Yes.

THE CHAIRMAN: You have told me a number of times this morning that you couldn't get a clear picture from Dr Malik and the nurses what fluids Lucy had received.

A. Yes.

THE CHAIRMAN: Dr Auterson seems to have obtained a picture of the fluids which Lucy had received, and the person, I understand, who he would have spoken to most directly about the fluids Lucy had received was you.

A. I don't recall him speaking to me about the fluids, particularly. In a general sense, yes, but I don't recall any specific -- when Dr Auterson arrived, I was hand bagging Lucy. Dr Auterson took over initially --

THE CHAIRMAN: Sorry, you had also spoken to him by phone because you --

A. Telling him to come in -- not telling him, asking him to come in -- with a view to intubating Lucy where I had been unsuccessful. When he came in, his first action was to start intubation. He had some difficulty --

I think there was a piece of equipment that he was not satisfied with, which had to be -- and an alternative had to be retrieved from the intensive care unit. He then went on to administer the flumazenil and there wasn't that I recall any great deal of discussion about the underlying issues in the terms Dr Auterson is referring to.

THE CHAIRMAN: Okay, thank you.

MR WOLFE: We move to 139, please, just to complete this sequence. Line 4. He's saying:

"It wasn't so much a discussion. I said [that is to you], 'Look, there's the U&E result. It shows hyponatraemia. Maybe she got too much fluid ...'"

Did he say that to you?

A. I don't recall him saying that.

Q. Does it fit logically? This was a child for whom you had sought electrolyte results.

A. That's right, yes.

Q. You were anxious to learn about her electrolyte status --

A. Yes.

Q. -- so that you could determine what further treatment would be necessary?

A. Yes.

Q. And the electrolytes came back showing hyponatraemia;

is that right?

A. That's correct.

Q. And you would have, at that time, regarded 127 as hyponatraemia?

A. The reference range is 135 to 145 and you would wish results to be as close within that as possible. That's not the same thing as saying that a value of 127 necessarily means that you have an explanation for what you see in front of you. I think maybe that's the defect in my understanding at the time. There is no question that 127 is a low value. What I have been trying to say, maybe not terribly clearly, is that it didn't -- I couldn't see that as -- it didn't occur to me that that was the cause of what I saw in front of me, nor did Dr Auterson draw that to my attention.

Q. If it was clear to you and Dr Auterson that in terms of what Lucy had received in terms of medical treatment up to that point was merely, albeit significantly, the infusion of hypotonic solution in a quantity that we all now agree was excessive, was it not obvious that this was the kind of factor that would have caused the hyponatraemia?

A. By hyponatraemia, you mean the low sodium?

Q. Yes.

A. Low sodium could be attributed to whatever fluids had

been used; it could also have been contributed to by the diarrhoea.

Q. Of course?

A. In the context at the time, what I didn't reach was a satisfactory conclusion -- any real conclusion as to a child in front of me who had deteriorated, as you have said, in a catastrophic way. That was the issue that my attention was focused on. And I could not put the information that was available to me together to construct, if I can put it like that, the explanation which has come to the fore since then.

THE CHAIRMAN: If you couldn't reach a conclusion, what suspicions did you have?

A. I didn't have any suspicions. I have never seen a child deteriorate in that fashion before. I literally could not understand what had happened.

MR WOLFE: You would know that a cerebral oedema can occur when the blood becomes too dilute; isn't that right?

A. Yes. I'm broadly familiar with the idea of cerebral oedema, yes.

Q. And one of the ways in which the blood can become too dilute is if the body receives an excess of hypotonic fluid.

A. That is correct, yes.

Q. And the account that you appear to be standing by

is that at that time of the morning, at least until you received a telephone call from Dr Crean, you hadn't been familiarised with the fluids that she had received.

A. I don't recall being aware that it was in any way different from what I had said up to the time that the saline had been started, if that's the question you're asking me.

Q. Yes. So you were proceeding upon the assumption that you had directed 30 ml per hour of Solution No. 18, nobody had provided you with a different account, so that's what you assumed she had received up until the administration of the normal saline?

A. Yes.

Q. And that is an account which, when one views Dr Auterson in the round, seems somewhat odd given that he appears to have had a familiarity with the fluids that she had received?

A. I don't wish to be commenting inappropriately, so if my remarks are inappropriate, I apologise. But if you take Dr Auterson as an anaesthetist, working in intensive care, in the round, as you say, one of the aspects that I would have expected of him automatically would be any possible treatment in a disastrous catastrophic situation like that would have sprung to mind and would have been implemented, and that particularly refers to

the hypertonic saline. So if I take it in the round, if I may, I would not reach the conclusion that he had a clear-cut understanding of what had gone on. He may have had thoughts and suspicions, but if he was even approaching a clear-cut conclusion, I can't see any basis on which he would not have at least tried treatment under those circumstances, even if he thought it was a hopeless situation which couldn't be retrieved. So taking it in the round, I don't reach the same conclusion as you do about Dr Auterson's state of understanding that night.

THE CHAIRMAN: Thank you very much. We'll take a break for 10 minutes and we'll resume.

(11.54 am)

(A short break)

(12.10 pm)

MR WOLFE: Just before we move on to the transfer of Lucy to the Royal Belfast Hospital for Sick Children, which you oversaw, doctor, could I ask you two points?

First of all, could I have up on the screen, please, 220-003-017? This is a report prepared by Dr Simon Haynes in the context of the evidence he was giving to the inquiry as its expert in Raychel's case. You can see there that he discusses the possibility of using hypertonic solution to reverse the effects of

hyponatraemia. Is that a report that you are familiar with, doctor?

A. No, I haven't seen this one.

Q. You haven't read it before coming here today?

A. No.

Q. He makes the point in the context of Raychel's case. It's about a third of the way down:

"Even if hypertonic saline had been in the room and given at that point in time, it is likely, in my opinion, that the situation was by then irretrievable."

We don't know what Dr Auterson would say in response to your point about the "try anything" approach that he should perhaps have clutched at the straw of using hypertonic saline.

A. He had already clutched at one straw, if I can put it like that, with the flumazenil, but he didn't -- nobody believed, as far as I understood, that this was a likely cause of any problems. It was on that very highly unlikely possibility that there was some very strange, obscure reaction to the medication. So when a straw was available, it had been grasped at, if I can put it like that.

Q. It's at least a possibility that, having grasped at that straw that you identify with no effect, that he could have reached the conclusion that the situation was

beyond retreat?

A. That is possible. It's not something I have ever discussed with him. It is not the way that most people looking at that situation would have looked at it, that there are separate forms of treatment. The fact that the flumazenil didn't work wouldn't tell you about any possibility, however small, of the hypertonic saline working. They're completely different ideas.

Q. Could I ask you to look at a statement which Staff Nurse Thecla Jones prepared in anticipation of the inquest? If I could have up on the screen 013-016-052 and have alongside it the subsequent page, please, 053? She recalls that at approximately 3.30, you arrived, blood samples and X-rays were taken as bagging continued, and up at the top of the page she says:

"Throughout resuscitation, ongoing discussion took place regarding Lucy's condition. Abdominal X-ray showed a query of abdominal distension, although diarrhoea still persisted. I checked the fluid balance chart and confirmed that approximately 400 ml of 0.18 saline/4 per cent dextrose plus the ongoing 500 ml of normal saline had been given intravenous and that Lucy had vomited earlier as well as having diarrhoea."

So she's saying in that statement that she checked and confirmed the position with regards to the fluids

that had been administered and which were continuing to be administered.

A. My understanding is that Nurse Jones wasn't involved in the care of Lucy. My understanding also is that she wrote in some of the numbers, 100 -- there's a sequence of numbers, 100, that's obviously incorrect, 100 over 200, I can't quite remember, and she obviously wrote those in. I'm not sure if that's entirely consistent with what she's saying here. She's certainly recorded some of the values that are in that fluid flow sheet, relating to times when she wasn't involved.

Q. But the verbs that she is using are "checking" and "confirming", much the same kind of thing that you say you had been doing.

A. I'm not saying that she didn't check, I'm not -- in the context, I have no recollection of her discussing that with me. She does say there was ongoing discussion and I'm sure that's right, that would always be the case, but she doesn't make any references to what the discussions were about and between whom. She does immediately follow it with the issue of the abdominal distension and this is somebody who had gastroenteritis and a swollen tummy, and that would be a feature that would be relatively uncommon in gastroenteritis and it would inevitably lead one's thoughts in the direction

of, well, has something else happened in the abdomen that we just haven't figured out, is there some other disease, some other disorder? The structure of what she's saying there, in the context of discussions followed by the abdominal distension, suggests to me that that's what the issue is, but I don't remember that conversation in any detail.

Q. Ultimately, when Lucy is stabilised, she's moved to the intensive care unit of the hospital; isn't that right?

A. Of the Erne, yes. That's correct.

Q. And arrangements were then made in an atmosphere, presumably, of relative calm compared to what had been the case, for her --

A. Relative calm I think would be the appropriate description.

Q. You have said you have no recollection of Dr Auterson raising particular concerns with you. Did you speak to him at all about what he thought might have gone wrong here?

A. I don't recall specifically asking him, no.

Q. Is that because you didn't or because you have no recollection?

A. All I'm saying -- no, what I'm saying is I don't recall doing so. I don't recall not doing so either, if I can put it like that. I don't recall just raising it with

him.

THE CHAIRMAN: Would it not have been an entirely appropriate conversation for you and Dr Auterson to say, however you frame it, whether you're blunt or whatever you say, "What on earth has gone wrong here?"

A. Well, yes. I would be surprised, if I'm allowed to say this, if I didn't say that during the course of these episodes.

THE CHAIRMAN: And vice versa.

A. Yes.

THE CHAIRMAN: So the two of you must have been looking for some sort of explanation for what went wrong?

A. Certainly, yes.

THE CHAIRMAN: So if we assume on that basis that there was a conversation, is it your evidence that you just can't remember what the content of that conversation was?

A. I certainly can't remember any conversation that came to any conclusion or raised any possibilities, any specific possibilities.

THE CHAIRMAN: Thank you.

MR WOLFE: You had a discussion with the parents before leaving for Belfast; is that right?

A. Yes.

Q. And as I follow your evidence along this chronology, at that stage you're telling this inquiry that you had not

identified the fact that fluids had been administered in a manner which was not in keeping with your directions?

A. That's my recollection of the situation at that time in the morning, yes. I hadn't established the fluids clearly is what I'm saying.

THE CHAIRMAN: Well, to put it bluntly, at this point you had no idea what had gone wrong, if I understand your evidence.

A. Yes, I didn't understand what had happened. That is true, yes.

MR WOLFE: Presumably you were inquisitive as to what had gone wrong?

A. Of course.

Q. And wee you are now at this stage administering treatment on the basis that there might be a cerebral oedema?

A. I was administering the treatment on the grounds that Dr McKaigue had asked that I would administer the treatment.

Q. Mannitol?

A. Mannitol, yes. My observation -- he also asked me to administer intravenous antibiotics, and the reasons why those thoughts would have occurred to him, I would imagine, although I didn't discuss it with him -- it was not an uncommon request from the Children's Hospital or

other intensive care units to administer mannitol in people who have had episodes of what one might call cardio-respiratory arrest. The concern, at a minimum, being that during the course of such episodes there may be difficulties that lead to cerebral oedema, which may make the situation worse. So that wasn't an unusual request in my experience of talking to people in the Children's Hospital and undertaking transfers.

With the antibiotics, if I may so, just to clarify, that raised the possibility he was worried about a disorder called meningococcal septicaemia, which is a very severe bacterial infection, which can occasionally catch you out without any signs that allow you to recognise it, and that was my understanding as to what he was referring to. But I don't recall that clarifying that very specifically with him.

Q. Of course, Dr Malik had been a presence with Lucy from before you got there.

A. He had seen her before I had, yes.

Q. And what I mean by that, just to be clear -- he had arrived at the point at which she was suffering the convulsion or the seizure.

A. I believe he had seen some of it. I think in actual fact most of it was reported to him by nursing staff. The actual abnormal movement episode, if I can use that

phrase, I think either had stopped or stopped very soon after he arrived, so he didn't have a lot of details and it was very difficult to get a clear-cut picture -- it was something nobody had seen before, I suspect, so people found it very difficult to describe it.

Q. And he had been in the hospital throughout the night; isn't that right?

A. So I believe, yes.

Q. Did you seek to ascertain from him whether he had a view about the deterioration?

A. I can't now remember such a conversation, no. When he had rung up to describe the episode, it wasn't the sort of description I would expect from an episode where he clearly understood what he was dealing with. So if there was, for example, a febrile convulsion which I mentioned, I would expect a certain quality of description from him, whereas his description of the episode that we're talking was vague, I suppose, is the only word I can think of offhand.

Q. So you went in the ambulance with a nurse to the Royal?

A. That's correct, yes.

Q. Before doing so, you had a discussion with Dr Auterson with regard to the fluids that were now applicable?

A. Yes.

Q. And he had a view that 40 ml of normal saline was

appropriate and you thought 30 ml?

A. That's correct, yes.

Q. Did that discussion not cause you to avert your attention to the fluids that had gone before?

A. No, it was a very brief discussion. It wasn't -- there was no kind of in-depth analysis about the situation.

Q. And in terms of your conversation with the parents at that stage, you didn't explain to them self-evidently that there had been a problem with the fluids?

A. I don't recall. I would be very surprised because I don't believe I understood what had happened. I have no doubt that the conversation I had with them from their point of view was entirely unsatisfactory and that if somebody clearly has no idea where to start thinking about this, it's obviously entirely unsatisfactory.

Q. You prepared a transfer letter for the Royal.

A. That's right.

Q. If we could have it up on the screen, please, it's 061-014-038. It's addressed to Dr McKaigue. You're thanking him for accepting Lucy and you set out -- perhaps if we have the other side of the page as well. You begin by describing her presentation:

"Fever, vomiting, drowsiness. Capillary refill of greater than two seconds."

A. Yes. That's right.

Q. You said earlier that you now doubt that it was greater than two seconds.

A. Yes.

Q. Do you repeat the mistake here?

A. This was a letter -- you have again referred to -- I think "panic" was the word. This was a letter written in very difficult circumstances. I think I probably just wrote what was -- copied down what was in the notes. When I look at that and I ask myself, "What does that mean?", that doesn't look like something I had thought very deeply about.

Q. So you had the notes in front of you as you penned this?

A. I would imagine so. What would be referred to as the medical notes, not necessarily the fluid sheets. They were physically separate pieces of paper. They would not necessarily be included.

Q. Was the note, this letter, written before you left or was it written in the ambulance?

A. No, I wouldn't have thought I could have written it in the ambulance.

Q. It was written before you left?

A. I presume it must be.

Q. And were the notes, that is the medical notes and the nursing notes, brought together on the journey?

A. I understood that they had been brought, but I should

possibly say that I was physically hand bagging Lucy, so I didn't have a hand with which to carry anything, so physically I wasn't able to carry anything myself. I presumed -- and I think normally there's a kind of mini-checklist you go through, notes, X-ray, and to make sure somebody has them, as it were, but I didn't bring them myself. I don't think I could have because my hands were otherwise physically full.

Q. It was your evidence to the General Medical Council that the notes were brought to the ambulance to Belfast; isn't that right?

A. Yes. I believe they were. It was usual practice. It only occurred to me subsequently when I was thinking that it couldn't have been me who brought them because, with my hands physically full, it wouldn't have been possible. But I believe that they were brought.

Q. You could have brought them and set them to the side?

A. I could have, yes.

Q. Presumably, during the journey you swapped with the nurse in terms of the bagging?

A. She did some of it. I think I did most of it, but I think she did some.

Q. The notes weren't left behind in Belfast, nor copied for Belfast at that point; is that right?

A. To the best of my knowledge, I wouldn't have left the

notes in Belfast. There had been some concern expressed in the Erne about notes which had been lost in Belfast. I don't recall -- I certainly didn't photocopy them myself. Normally what would happen when we arrived would be that any notes would be made available to the receiving team, as it were, and if they wished to photocopy them, then they would photocopy them. But I don't remember whether that happened or not.

Q. The letter which you prepared for Dr McKaigue doesn't describe the fluids that Lucy had received, either pre-collapse or post-collapse.

A. No, it's a very brief letter, written under, I think, very difficult circumstances. It's not a letter that I would say -- and particularly in retrospect, looking back at what has happened over the intervening years, it's not a letter I would describe myself as being proud of, if I can put it like that, but I can understand under the circumstances of trying to achieve a place in Belfast, looking as we were between myself and Dr Auterson, as to how we could ventilate Lucy on the way and undertake a journey, doing something which was significantly outside what I normally do, if I can put it like that. So under those circumstances, with a nurse, accompanied by a nurse that I would not have worked with before -- she was from the intensive care

unit in the Erne rather than the children's ward. So although it's not a note that I would approve of, if I can put it that way, I can understand how I came to write it in that way.

Q. You're not proud of the note, can I suggest, because the purpose of the note should be to inform the receiving hospital of all relevant --

A. It should be --

Q. -- data surrounding the child's --

A. Yes, you would wish to provide as much data as is possible ...

Q. And it would have been within your power or knowledge to say that Lucy has had repeat electrolytes done and they now show an electrolyte derangement; isn't that right?

A. I can't honestly say that I remembered that I had the results when I wrote the note. I may have had the result and I may not have put it in. That wasn't a conscious decision not to put the electrolyte result in. I can't actually explain why I didn't put that in.

Q. If you had it, it should have been put in?

A. Yes, I should have put it in, yes. No doubt about it.

Q. Moreover, while you tell us that your recollection tells you that you had an uncertainty about the pre-collapse fluids, if I can put it in those terms --

A. Yes.

Q. -- you were aware of the post-collapse fluids --

A. Yes.

Q. -- the normal saline --

A. Yes, yes.

Q. -- and you were aware that they had been run in at a rate which you wouldn't have approved of?

A. That's correct, yes.

Q. And you were aware that that had been done -- substantially done, I should say -- prior to the repeat bloods being taken?

A. That is correct, yes.

Q. And again, those are factors that you should have mentioned in this letter?

A. Yes. With enough time and an appropriate situation, I'm sure my letter would have been much more detailed. That is a brief note, written under very difficult circumstances.

Q. Of course, arriving at the hospital, you would have had an opportunity to verbally articulate matters that weren't in your letter.

A. Yes.

Q. And you've told us in your witness statement that you have a belief that you might have verbally handed over the results of the repeat electrolyte tests.

A. If I had them, I think it's highly likely, but I don't

actually remember doing so.

Q. The Royal Belfast Hospital's note, which I'm sure you're familiar with, shows that it was a telephone call from an anaesthetist -- and we're presuming Dr Auterson -- that revealed to the hospital the repeat electrolytes.

A. I have seen that note, yes. I presumed it was Dr Auterson, yes.

Q. Moreover, the notes made by the Royal do not indicate any knowledge of the sequence of normal saline flowing and then the repeat blood for electrolytes.

A. No, I hadn't realised the significance of that sequence, I think, until I had seen Dr Sumner's report. That was some years later.

Q. So you accept that that's not something you told the Royal?

A. The sequence, I certainly didn't point the -- I don't think I put any emphasis on the sequence, if I can put it like that. To me, I don't think it was something that I had seen as being important in the context, in the way that we now know that it is important.

Q. So you return to Enniskillen with the notes, not having left them or copied them at the Royal for the Royal?

A. I can't say that I remember bringing them back, but they were available to me within the next day or two. I hadn't copied them. I can't speak for what might have

happened within the Royal; it wouldn't have been my job, if I can put it like that, to have copied them within the Royal --

Q. My point is: did you not volunteer to the Royal that you had the notes with you --

A. When we arrived?

Q. -- and that they might like to see them?

A. I don't remember doing so. I don't remember that part of the discussion well enough to say that I didn't do that. I wouldn't physically have had the notes. This is what I'm saying about the bagging. I'm sure that the notes must have been carried with the nurse who was accompanying me because I was doing most of the hands-on bagging.

Q. I don't follow that, doctor. You may well have been bagging and if you were bagging, clearly you wouldn't have had the file in your hand. That's a given. You seem anxious to emphasise that you didn't have the notes personally because you were bagging.

A. I'm not disagreeing with you; I'm talking about physically. If you mean -- "Did I physically hand them over?", was that the question?

Q. No. The question is a step removed from that. You seem to be anxious to say that you didn't have the notes with you. If the notes were there, they must have been with

the nurse because you were bagging.

A. Yes, that's a conclusion or an assumption.

Q. The nurse was also bagging as well.

A. I did most of the bagging and the amount that she did was relatively short breaks to alleviate the cramp in my hands, to be blunt about it.

Q. Of course. But if the notes had been brought physically to Belfast by either of you, why were they not copied for the Royal?

A. I can't answer that question. If I hand -- let's say, for the sake of trying to be clear, that the nurse had handed the notes to somebody from -- one of our colleagues from the Royal. Whether they were copied or not thereafter would be entirely within their remit, as it were.

THE CHAIRMAN: If they're offered them?

A. Yes. If they are offered. I don't specifically remember them being offered.

MR WOLFE: You have said, however, that in lieu of not including all of the relevant data in your transfer letter that you relied on the entries on the fluid balance chart to inform the receiving clinicians as to the nature, quantities and timings of the fluids administered to Lucy.

A. That would be a source of that information, yes.

Q. But the point is, doctor, you weren't volunteering the notes to the Royal, as it appears, because --

A. I don't believe I was volunteering the notes to the Royal, no.

Q. Neither you nor your nursing colleague?

A. I honestly can't remember what supervened between my nursing colleague and her colleagues or whoever she talked to.

Q. As it transpired, Dr Crean wrote what appeared to be a rather frustrated note into the PICU file for Lucy bemoaning the fact that the notes were not with the child and asking for them to be faxed and, of course, they were subsequently faxed.

A. Yes. I understand from what I have read that Dr McKaigue was there to receive us when we arrived. I have no recollection of Dr McKaigue saying, "Listen, we need a copy of these notes". He, I would regard, had far more expertise in matters of transfer under these circumstances and, after a very difficult and uncomfortable journey, bagging a child pretty much continuously, I would have anticipated that he would be in a better position to be doing the checklist of things that might or might not be appropriate. And if he had raised the issue that we don't have the notes, clearly we would have responded, so clearly he didn't raise the

issue.

Q. Would it be wrong to conclude, doctor, from the poverty of information contained in the transfer letter, allied to the failure to volunteer the notes, that you were seeking to hide relevant --

A. It would be entirely wrong.

Q. You will have to let me ask the question, doctor.

A. I'm sorry. I beg your pardon.

Q. I understand your anxiety. Would there be anything in that that you were trying to hide from the Royal, relevant data concerning Lucy's deterioration?

A. No.

Q. You made it back to the Erne in Enniskillen by mid-morning.

A. I believe so. I don't remember the specific times.

Q. And you had a day of clinics to do; is that right?

A. An afternoon clinic at another site, I think. I didn't have a clinic scheduled for that morning if I remember rightly.

Q. And you were returning to Enniskillen with the notes in the ambulance and here was an opportunity to read the notes to discover perhaps what had gone wrong here.

A. I can't say that I remember returning to Enniskillen with the notes. I'll have to say that I have never really been able to read a set of notes in the back of

an ambulance if that's the physical idea that you're trying to raise. It is a very uncomfortable and unpleasant experience at the best of times and it's not something that, I think, I would have been able to achieve. To do the recordings of the observations as you're taking the child to Belfast is doable, but I think to be able to read the notes in that sort of analytical fashion, I think, is very unlikely.

Q. Presumably, doctor, upon arriving back at the Erne, you're anxious to discover further, because at this stage you really don't have much of a clue on your own account what has happened here, so you're anxious to discover what has happened to this child, are you?

A. Yes.

Q. And I suppose Dr Malik would have been a reasonable first port of call to speak to about this?

A. I don't remember if he was still in the hospital when I got back. I don't remember what his shifts were that day, so he may not have been available. I can't say that for sure.

Q. Can you remember who you spoke to prior to Dr Crean calling? And I understand Dr Crean called in during the morning of 13 April.

A. Yes. No, I can't recall who I spoke to before that.

Q. Do you know Sister Traynor?

A. I do, yes.

Q. She was on duty that morning?

A. I believe so. I have seen a witness statement of hers which said that I did raise the issue with her. I don't recall the specific conversation, but I would have no reason to doubt that I would have. If I'd seen her, I would have raised the situation and told her what had happened.

Q. Right. You can't remember that conversation?

A. No.

Q. I'll see if I can assist your memory in a moment.

You have told us that when you arrived back -- if I could have up on the screen 278/1, page 13. In answer to question 23(c) at the top there you are asked:

"Could you have determined what fluids had been administered to Lucy by speaking to nursing or medical colleagues who cared for her during your absence? If so, clarify whether you carried out this exercise at any point before or after her death."

You say:

"When I arrived, I asked Dr Malik and the nursing staff present for an update. I cannot now recall if I got a clear answer. I believed at that time that Lucy had been receiving the fluids I had earlier requested. I discussed the matter with Dr Kelly after Lucy had been

transferred to Belfast."

So the reference to arrival, that isn't a reference to arrival back from Belfast, is it?

A. "When I arrived, I asked Dr Malik", I think that's a reference to when I arrived at 3 o'clock in the morning or thereabouts. That's my understanding. That's the question I was answering.

Q. That's your recollection and you don't remember speaking to Dr Malik upon arriving back from Belfast?

A. No. I did speak to him some time over the next day or two, and I can't recall when it was, to let him know that either it was my intention to talk to Dr Kelly or possibly I had already spoken to Dr Kelly when I spoke to him, but that was not a discussion of the events of the night in question; that was to explain to him something that I had done subsequent to our last discussion.

Q. Let me turn to Sister Traynor's account. In her witness statement to the inquiry -- if we could have up on the screen, please, WS310/1, page 4 -- she recalls, you can see at (iv), that you came into the treatment room where she was preparing to do a nursing task, and you asked what happened here last night. She doesn't recall the time of day this occurred.

She says in answer to a question about what you

might have said:

"To the best of my knowledge and recollection, Dr O'Donohoe did not mention fluids or make any other comments in relation to Lucy's case to me."

But she goes on to say that she informed Ms Millar of her conversation with you and she says:

"[She] expressed concern to Ms Millar [this is at (viii)] and awaited her response and direction."

Can you recall any better what was discussed during that meeting, that discussion?

A. No, I don't recall that, any detail of that.

Q. She says that you asked this open question, "What happened here last night?"

A. I don't remember asking that question, but if I was to say -- an alternative version of the question was if I went in and said, "I wonder can I talk to you about what happened here last night?" I may have done so. If that was after when Dr Crean had contacted me, then the meeting with her may have been in the same spirit as the meeting with Dr Malik, which was to say, "Listen, I have been told this has happened, Dr Crean has rung me to say he thinks there was some discrepancy in the fluids. Therefore my intention would be that I would notify this to Dr Kelly as a critical incident". I don't recall that conversation, but that's my best guess as to what

the conversation would have been. It would have been along those lines. Sister Traynor then did go and talk to Mrs Millar and did notify in the same that I had notified Dr Kelly.

Q. It would seem logical that you would want to speak to somebody, perhaps on the nursing side, about what had happened.

A. Yes, that would seem logical, yes.

Q. Could I bring you to another account, which Sister Traynor has apparently provided, and if I could have up on the screen, please, witness statement 298/3, at page 12? It's a summary of the account which Sister Traynor appears to have provided to the Royal College team that were examining Lucy's case in the context of this external review in 2002.

They say that although Sister Traynor was not on call when the child was admitted, she was on call the following morning:

"The nurses who had been looking after Lucy had not expressed any concern."

She reported a conversation with you, Dr O'Donohoe:

"[He] said to Sister Traynor, 'What are you going to do with the IV fluids your staff got wrong?' In response, Sister Traynor said, 'Who prescribed the IV fluids?' Sister Traynor admitted [that is admitted

to the authors of this report] that there had been a nursing error in totalling the fluids. Sister Traynor felt that Dr O'Donohoe was trying to instil a blame culture relating to the particular case."

So you said something a moment ago, doctor: you can't recall, but you wouldn't be surprised if a conversation happened after your conversation with Dr Crean?

A. No, I wouldn't be surprised, no.

Q. And Dr Crean -- we'll move on and look at his conversation with you in a moment -- but in broad terms, he was bringing to your attention the fact that Lucy had received a fluid regime which was inconsistent with what you thought she should have received. In other words, the fluids were wrong.

A. Yes, that's right. That's the substance of the conversation, yes.

Q. Do you think it likely, doctor, that having been apprised of that information, that you would be seeking an account from the ward sister? As I understand it Sister Traynor was the senior nurse on paediatrics.

A. That's right, she was, yes.

Q. So she would be an appropriate person to approach?

A. It would certainly be appropriate for me to approach her. If I may draw your attention to the fact that on

the fourth last line, it says:

"Sister Traynor admitted there had been a nursing error in totalling the fluids."

If that is meant to indicate that was part of the conversation with me, that can't relate to what happened that morning because I wasn't aware and I don't think she had any basis for being aware, unless some of her nursing staff had told her that there had been an error in totalling the fluids.

Q. Well, we will hear from her tomorrow. I can't help you with that.

A. I understand. I haven't talked to her about that, but I don't believe that error that she was referring to was recognised or known about. Certainly not by me on the morning in question.

Q. Well, let's feed into this the conversation with Dr Crean. Perhaps a useful starting point would be to look at the note that you have written in respect of that conversation. We can find that at 027-010-024. Perhaps we could have alongside it 025 as well.

You're writing a note into Lucy's medical notes; isn't that right?

A. That's right, yes.

Q. You're writing it retrospectively on 14 April, following a conversation with Dr Crean on 13 April?

A. That's right, yes.

Q. Dr Crean, as appears from your note, rang to enquire about the fluid regime Lucy had been on.

A. Yes.

Q. Plainly, he was in possession of her notes at this point in time.

A. Her Erne Hospital notes?

Q. Yes.

A. I don't know, I can't say for sure, I can't recall that being discussed. And if he did have them, either the originals had been left with him or the originals had been photocopied. As I think I've said, I don't remember that happening.

Q. He's querying with you what fluid regime Lucy had been on. You told him a bolus of 100 ml over one hour, followed by Solution No. 18 --

A. Yes.

Q. -- at 30 ml per hour.

A. Yes.

Q. And he replied, if we follow the sequence of your note, that he thought it had been Solution No. 18 at 100 ml per hour.

A. That's correct, yes.

Q. Which was factually absolutely correct?

A. That's right, yes.

Q. So he must have derived that from the fact that the notes --
A. Either from the notes or the account given by the nurse who came with me to the nurse in paediatric intensive care. I can't say which it was.
Q. If the nurse had possibly given that account, why weren't you aware of it?
A. All I'm saying is I can't say from where that information came. That's all I'm saying. I'm not saying that I know she was aware of that information.
Q. And you then say to Dr Crean that you thought it had been 0.18 -- sorry, you thought that it had been --
A. My recollection is that -- can I help you with my handwriting?
Q. Yes. I can see now:
"A bolus over one hour and 30 ml as above."
A. Yes.
Q. And of course, factually, that was incorrect?
A. Yes. He was right.
Q. Yes. And you would say that at that point you didn't know what she had received?
A. No, I didn't. He asked me what had happened, I told him what I thought had happened, and then he told me what he believed had happened.
Q. The General Medical Council characterised your note as

misleading and inaccurate.
A. I don't remember that, but they may have done. I don't remember the exact words.
Q. That was their finding.
A. I'm not disputing it, but I don't remember the words.
Q. You had it within your power to go and check what she had received; isn't that right?
A. To look at the fluid sheets?
Q. Yes.
A. Yes. I did -- my recollection was that I faxed fluid sheets -- and my recollection is that before talking to Dr Kelly I had seen the fluid sheets that were within the Erne Hospital, but I can't remember whether that was the following morning or whether that was the morning he rang.
Q. Well, your recollection of the sequence is that having been told this information, you did what?
A. I went to try and find the notes to look at what had been written. But I can't remember at what time I was able to access the notes.
Q. Well, this then, upon obtaining the notes, became your first sight of the fact that a fluid regime had been delivered which you had not prescribed and, in fact, was inconsistent with what you had prescribed.
A. Yes.

Q. And you can't remember whether you obtained that information that day or the following day?
A. No, I can't.
Q. Was this not something that was of the utmost urgency?
A. Urgency doesn't mean I could necessarily lay my hands on the notes. As I've said, I had to leave to go and do a clinic at another site during the course of the day. I can't remember at what point I got my hands on the notes. Even if it is urgent, it doesn't mean that I can necessarily tell you I'd be able to get the notes as rapidly as I would wish.
Q. I'm conscious that Sister Traynor has, on the face of it, provided accounts which appear to be inconsistent, one with the other, but on the account that she's given the Royal College, it would appear, as we've discussed, that you approached her in a tone which she interpreted as blaming of someone and asked who had caused this problem with the fluids.
A. That's my understanding of what you have read out. When I read her witness statement for the inquiry, there was a different content and a different tone and I think she was saying she hadn't seen the records of that meeting and she doesn't believe them to be accurate. That was my understanding of what I read.
Q. I think that's fair. We'll ask her about that. You

approached her, if her account is accepted, to --
A. Just to be clear, which account are we accepting?
Q. On that Royal College account.
A. If we accept the Royal College account? I'm not terribly keen to accept an account which is contradicted by another account in writing.
THE CHAIRMAN: We have to go on an either/or basis. Sister Traynor is going to give evidence tomorrow. Don't assume that this is the account that's going to be accepted ultimately --
A. Okay.
THE CHAIRMAN: -- but since Sister Traynor hasn't given evidence, Mr Wolfe may want to ask you some questions as against both accounts, not just one.
MR WOLFE: Let me perhaps think about that, but in the meantime approach it in another way.
Dr Crean has given you information which, to say the least, must have come as a surprise.
A. Yes.
Q. You had authorised a fluid regime which, after the administration of a bolus of normal saline, would have meant that Lucy would receive Solution No. 18 at a rate of 30 ml per hour; isn't that right?
A. Sorry, I lost track. I beg your pardon.
Q. After the administration of the bolus that you intended,

you anticipated that Lucy would receive 30 ml per hour of Solution No. 18.
A. Yes.
Q. And Dr Crean was telling you that not only did Lucy not have a bolus of normal saline, but in fact, in terms of the Solution No. 18 that she received, she was receiving 100 ml per hour?
A. That's right, yes.
Q. That's 70 ml in excess per hour of what you intended --
A. That's right.
Q. -- and no normal saline?
A. That's my recollection of the conversation, yes.
Q. At that point then, doctor, did you give any consideration to whether that fluid error was implicated in this child's deterioration?
A. I certainly don't recall reaching any conclusion. In one previous account I think I've said something like the sodium was 127, but I didn't think that was low enough to produce hyponatraemic convulsion. So in terms of following it through further to the cerebral oedema and so on, the sequence we've talked about, no. This was after quite a long night and I'm not sure that I would necessarily have been at my sharpest at the time. So again, maybe I should have, but I don't think I reached that conclusion at that time. It was a matter

of great concern in a child who's deteriorated so markedly in a way that you don't understand when any discrepancy is pointed out. But I hadn't joined the dots in the way that I would now accept is correct.
Q. Why didn't you join the dots?
A. It wasn't that I set out to not join the dots. It wasn't a conscious decision, if I can put it like that. I can't now explain in detail, but when I looked at that sodium of 127 at that time, that -- and for quite a long time afterwards, that seemed very disproportionate to the severity of what I had seen in front of me. It was at -- a level, 127 is not a terribly uncommon level of sodium to see in children, either well or unwell, when you take blood specimens. And it is very unusual for it to be associated with that sort of situation. This is the only situation that I can think of where I've seen such a deterioration where the sodium measurement was 127. I accept the point that it may have been lower at that point, but that had not occurred to me. So it may seem very obvious that I should have said: 127, serious deterioration, therefore cerebral oedema -- or whatever sequence in the middle. All I can say is that I didn't.
Q. Can we look at the following factors, doctor? This child came into hospital dehydrated. She came into

hospital with gastroenteritis, but in terms of the health standards of the western world, she was not severely ill; is that right?
A. That's correct, yes.
Q. The only thing that you or any other doctor had directed to go into her was fluids by the time of the seizure?
A. That's correct, yes.
Q. There's no other drug going in?
A. No, no.
Q. In terms of your view of the appropriate fluids compared with the fluids that she actually received, there was day and night; isn't that right?
A. Yes, that's a reasonable summary of the situation, yes.
Q. We know, as you've indicated, that excess amounts of hypotonic fluid have the potential -- and I put it no higher than that -- to cause an electrolyte derangement to the extent that a cerebral oedema could occur.
A. Yes. If you're to ask me that as a multiple choice question, I'm sure I would have ticked that box, if I can put it like that. That's not the same thing as being able to say I could access that information in that particular context, which is a slightly different question, and to join up the dots as the --
Q. I realise I'm putting these points to you in fairly simple and in-the-round kind of terms, but it's to lead

to an in-the-round kind of conclusion, doctor. Are you telling this inquiry that, on the basis of the information now supplied to you by Dr Crean and taking all of these other factors into account, you weren't even suspicious that the fluids were the trigger for this deterioration?
A. I couldn't grasp and I couldn't understand that a sodium of 127 could be associated with such a profound catastrophic outcome. I had a conversation with Dr Kelly and I think there's somewhere a record saying there could have been a misdiagnosis. I don't remember, but it was clearly a very vague conversation, if I can put it like that. I think that was the hallmark of somebody who was struggling to understand what had gone on.
MR WOLFE: Perhaps that would be an appropriate moment, sir.
THE CHAIRMAN: Doctor, we'll break until 2 o'clock, but we will get through your evidence this afternoon.
(1.05 pm)
(The Short Adjournment)
(2.00 pm)
MR WOLFE: Sir, I understand Ms Simpson wants to make a point about this morning's documents.
MS SIMPSON: If I could clarify one point that you raised at the outset of this morning. The file in question was a

DLS file, not a Western Trust file.

THE CHAIRMAN: So I point the finger at somebody else? You say it's a DLS file, but it's the DLS that holds files on behalf of which trust?

MS SIMPSON: I think it's a file that was held by DLS in relation to the investigation of matters on behalf of the trust, but it's a DLS file rather than a Western Trust file. Secondly, can I simply say that we understand practically all of the information ought to have been with the inquiry, so while it seems to be voluminous, hopefully you should find that there is nothing that should cause an embarrassment at a later stage.

THE CHAIRMAN: We're hoping too that -- I think it was said to us before -- I think by you, Ms Simpson -- that a lot of this documentation might appear elsewhere and I hope that is the case. Thank you.

MR WOLFE: Doctor, if you can come back to the witness chair, please.

Can we just finish off our discussion about your interaction with Dr Crean and can I draw your attention to something Dr Crean said in evidence the day before last? While he has no recollection of your discussion, he did express the view that the fluid regime that you say you rehearsed to him, which was 100 ml as a bolus

and then 30 ml of Solution No. 18, he has commented that that regime for a dehydrated child makes absolutely no sense at all. Is it your position -- and it appears to be your position from the note -- that that is what you said to him?

A. That relates to the intravenous fluids.

Q. Yes.

A. Dr Crean did also, I think, go on to say something to the effect that it wasn't an area of treatment that he was usually involved in, so the fact that the question of oral rehydration fluid as an extra source of fluid didn't come up, didn't occur to him or he wasn't in a position to make a comment on it is what he's referring to in that context, I think. He rang about the intravenous fluids.

THE CHAIRMAN: So are you saying that your fluid prescription was to be 30 ml an hour plus oral rehydration?

A. Yes, oral rehydration is a route -- a universal part of the treatment of gastroenteritis, and depending on how much was taken, then you would adjust accordingly as time went by.

MR WOLFE: The second point arising out of that conversation, which I want to ask you about is this: by the time you're having the conversation with him, you're

aware that Lucy had received 500 ml of normal saline?

A. Yes, I think so.

Q. That doesn't appear to have been part of your contribution to the conversation. In other words, you haven't indicated in the note that you made thereafter that that was part of the exchange or the information sharing.

A. I don't think it was. I think he rang to raise a very specific point, which I was -- I think I have said I was very surprised to hear. So I don't think the conversation went on to issues of what was the rest of the fluid and what was happening beyond that. My recollection is he was notifying me of something that he thought was noteworthy or he was asking me about something that he had noted.

Q. But of course, you would have known, would you not, that the very significant infusion of normal saline would have had the potential to exacerbate any cerebral oedema?

A. I think you're making the assumption that I was approaching this as somebody who understood what was going on, who had an understanding of the basic problem, and my difficulty at that time was that the sequence we've talked about, the fluid, hyponatraemia, cerebral oedema, was not what I was thinking.

And in light of that sequence of events which I've had -- which as I said, Dr Sumner and so on have delineated very clearly, I take the point you're making, but on the other hand that was not the position I was in at the time. I was informed of something which took me rather by surprise in the situation of a child who had had a catastrophic deterioration that I didn't understand.

Q. Yes. You commented upon your state of mind upon receiving this information from Dr Crean when you gave evidence before the General Medical Council. If I could have up on the screen, please, 163-001-021. At the bottom of the page, you are asked a question about the note that you then made retrospectively on the 14th.

THE CHAIRMAN: Is that at letter F?

MR WOLFE: Yes.

A. I can see that, yes.

Q. You're asked:

"What effect did reading the notes ..."

That is the notes in the file which established for you that Dr Crean was right that it was 100 ml per hour of Solution No. 18. You say:

"I was very surprised and it precipitated the note recording. I cannot necessarily say it was the calmest, most collected and thoughtful note I have ever made. If

I was to say that it was an upsetting and even distressing thing to think that in a child who had deteriorated so markedly from although what was a potentially dangerous illness was the sort of thing we would expect to deal with normally and to have something like that pointed out to me was, it would not be unreasonable to say, a distressing experience."

So I'm anxious to explore with you, doctor, in light of that answer, that seems to suggest that Dr Crean's revelation, as confirmed by you when you went to the notes, seemed to trigger in you a sense of, if you like, as you suggest there, a sense of upset in relation to the fluid regime and what had gone wrong.

A. I was trying to choose my words very carefully under these circumstances because I don't want to give anybody the impression that I'm in any way, shape or form suggesting that any upset I may have suffered on any occasion to do with this is comparable to what the family has experienced. So if I could make that clear from the outset, I can then address your question.

This was a child who had been admitted, as I've said there, with a relatively normal illness that I would expect to be home within a day or two at most. The child had deteriorated catastrophically. That in itself -- and I appreciate that as a professional person

working in this area, one should be detached and one should not have any emotional response -- be able to contain all emotional responses. That sort of situation is not one that does not have an emotional impact on me and, I suspect, quite a number of my colleagues. The very fact of something having gone wrong to that extent in such an unexpected fashion.

If I may just finish, the suggestion then that there was something untoward in the recording of the fluids, that didn't have to trigger any association with what had happened to me to be a further upsetting issue. And you will recall the conversation I had with Dr Kelly was rather vague and I suspect -- I'm sure he'll give his own account of it -- was possibly rather unfocused and somewhat rambling ... And I don't think that I knew what the significance of his phone call was. If there was one thing wrong, what else might there have been happening that I wasn't aware of might be ...

Q. Why would you characterise the discovery of the fluid error as a distressing experience unless it was indicating to you some problem in terms of causation in relation to the deterioration?

A. It doesn't necessarily have to be a sign of causation. It's a problem, and if there is a discrepancy then I have no way of knowing what other discrepancies there

might be. It doesn't have to necessarily follow -- and I come back to the point that a sodium of 127, even with that information, would not -- it did not allow me to reach the conclusions which have subsequently been reached.

Q. The sodium of 127 seems to have triggered the conclusion reached by, for example, Dr Dewi Evans in his medico-legal report for the family, prepared in or about February 2001. He seems to have based his conclusions that the fluid caused the cerebral oedema on the basis of a 127 finding.

A. I don't remember the details. I have seen his report, but I can't remember the details.

Q. I was going to add to that. Dr Asghar, who was a colleague of yours working at the time, he wrote, as you will recall, to Mr Mills, saying:

"It appears this child had 100 ml running through the night. It appears she had too much fluid and now the post-mortem has found a cerebral oedema."

So he seems to be linking all of these points together.

A. May I try and -- I think there are two things you have referred to. The first was Dr Dewi Evans.

Q. If I could focus that into a question perhaps, it might be easier. There does seem to have been an ability on

the part of, for example, Evans and, for example, Asghar to reach a view that the fluids were indicative of a problem or were causative of a problem.

A. If I can take Dr Evans --

Q. Why couldn't you do that?

A. If I can take Dr Evans first. He specifically refers to the level of 127 and says he believes that was enough to cause the episode in question. Even at that stage when I saw his report -- although I think Dr Sumner's report put it differently, and I thought it was a very clear exposition of the issue. The best information that I'd come across in the intervening years about the levels of sodium at which you're likely to get cerebral oedema -- I think was there was an article from, I think it was the Sick Children's Hospital in Toronto, and if you look at the general run of levels at which you get cerebral oedema, they're considerably -- sorry, maybe not considerably, but certainly significantly lower than 127.

Dr Asghar's involvement was slightly different in the sense that, to the best of my knowledge, he didn't present any particular coherent pathway. I think he said something about the amount of fluid; I don't know that he said hyponatraemia.

Q. That's entirely right. In fact we can put up on the

screen what he said. 036A-099-212 and have alongside that 213. We've had to redact, sir, because of irrelevancies contained within the letter. This is a letter written to Mr Mills on 5 June 2000. What he says at the top of the right-hand page is:

"A PM revealed cerebral oedema. This child might have been given excess of fluids. All through the night, fluids were running at 100 ml per hour."

And there are other aspects of that that don't trouble us. The point I'm making, doctor, is that no one is necessarily expecting you to make a finite finding in relation to all of this, but at the very least should you not have had a suspicion, perhaps a strong suspicion, that the fluid error here was causative of Lucy's deterioration?

A. All I can say is that I didn't. I think in retrospect, the reason was the catastrophic nature of the deterioration. If she had been unwell, but not so catastrophically unwell, or for example she would had a convulsion, one of the other more minor manifestations of cerebral oedema, it might have seemed proportionate. But with a sodium of 127 and the disastrous deterioration, those two did not line up in my mind.

THE CHAIRMAN: Let me ask you two points about that. Does that mean that you considered whether excess fluid had

brought about Lucy's death and then discounted it because the reading was 127?

A. I think the latter is closer in that I think I've said somewhere that I was aware of 127 and I thought this was inadequately reduced to explain a hyponatraemic convulsion, or words to that effect.

THE CHAIRMAN: Are you telling me that you remember consciously exploring the issue and saying: Lucy got far too much fluid, she got far too much Solution No. 18, then she got far too much normal saline, but I discount the fluids as causing her death?

A. No, I didn't.

THE CHAIRMAN: Did you have a better lead than that?

A. No, I didn't.

THE CHAIRMAN: Did you have any other lead?

A. No.

THE CHAIRMAN: So in the absence of any other lead, why not explore the single lead that you did have about excess fluid, the rate of her fall from 137 to 127, and then possibly the effect of giving her a free run of normal saline from about 2.30 or 3 o'clock?

A. I didn't explore it. I didn't explore those issues. That was not a sequence that occurred to me.

THE CHAIRMAN: Why not if you had no other lead, doctor?

A. What I was trying to say was the degree of this

deterioration was something I couldn't get a handle on. There are very few situations where I find myself at least unable to get a lead into it. I accept the point you're making that maybe I should have.

THE CHAIRMAN: I'm not making the point with the benefit of hindsight; I'm saying, at that time, you say that although you try to remain professional and that involves an element of detachment, people are inevitably upset about the loss of a child who was previously well.

A. Yes, I've said that.

THE CHAIRMAN: Okay. That being the case, you're even more curious about why a previously well child has deteriorated and died in such a short period of time.

A. Yes.

THE CHAIRMAN: You have no lead other than an issue about the fluids.

A. And I approached Dr Kelly as the medical director. I couldn't see how I could tackle this issue and reach any conclusion myself. That was the basis -- I didn't know that they were related, but I couldn't see how I could approach the issue and tackle it satisfactorily myself.

THE CHAIRMAN: I'm not criticising you for going to Dr Kelly -- and that will be explored in the next few minutes -- but having gone to Dr Kelly, would you

yourself not have at least a professional interest in exploring the issue of whether or to what extent the fluids contributed to Lucy's death?

A. She had been transferred to Belfast and I think it was the following --

THE CHAIRMAN: In effect, she was transferred to Belfast to die.

A. But that's -- what I'm saying is I had a conversation with Dr Hanrahan, the paediatric neurologist, who told me he had undertaken a number of investigations and subsequently told me that a post-mortem was to be done. As it happens, I didn't get an awful lot of information back about those. But the point to those investigations would be that presumably he wasn't clear what other possibilities there were and the post-mortem results, similarly, would be exploring what the possibilities were.

THE CHAIRMAN: Okay, thank you.

MR WOLFE: Doctor, when you discovered that the fluids were not as you had directed or prescribed, did you reach the conclusion that the fluids were therefore inappropriate, it was an inappropriate fluid regime?

A. It wasn't the regime I had prescribed, and in that sense it was inappropriate, yes, I would say.

Q. But inappropriate both in terms of the rate or the

volume of fluid that Lucy had got before her collapse?
A. I'm accepting the inappropriateness, yes.
Q. And inappropriate in type?
A. I'm accepting the inappropriateness in the broad sense. It was not what I had intended. That does not necessarily mean that it allowed me to make the leap from that to the cerebral oedema.
Q. Well, did you give any consideration to whether those fluids could have caused any harm to this child?
A. I've spoken about the sodium of the 127 as the intervening step. The earliest recollection of what I have written and said is that I considered the possibility of a hyponatraemic convulsion, the convulsion associated with low sodium, but that I felt the 127 was not low enough for this to be a real possibility. So my recollection and my understanding of my thought process is that a sodium level of 127 didn't allow me to identify what the cause of the cerebral oedema was.
Q. Let me move on to your discussions with Dr Kelly. It appears, doctor, that you obtained the notes in relation to Lucy and made your entry on 14 April.
A. That seems to be the case, yes.
Q. It does appear that you made a report to Dr Kelly on that day; is that fair?

A. I don't remember when I first contacted him. I may have spoken to him on the phone on the Thursday. I believe that I spoke to him face-to-face on the Friday.
Q. And had you ascertained, by the time you spoke to him, that Dr Crean's concern was accurate?
A. I believe so, yes.
Q. Had Dr Crean said anything to you about his concern other than just expressing the view that he thought she had had 100 ml an hour of Solution No. 18?
A. No, he didn't suggest to me the possibility that the cerebral oedema was related to hyponatraemia, the sequence that we've talked about. He didn't raise that in the discussion.
Q. Did you get any sense of why this was at all significant? 100 ml an hour is what she got; why did he see that as significant?
A. I think in the same conversation he also referred to the fact that he had referred her on to Dr Hanrahan, the paediatric neurologist. My understanding from that -- and I didn't chase this through specifically -- was that he hadn't reached a specific conclusion.
Q. So he was simply wanting confirmation --
A. More information, I think. More information in general.
Q. And you have told us in your witness statement that you spoke to Dr Kelly and notified him of your conversation

with Dr Crean.
A. Yes.
Q. What did you tell him about that conversation?
A. I don't remember the discussions in any great detail. I certainly believe that I attempted to indicate what had drawn this issue to my attention. I'm sure I told him that it was a disastrous outcome, unanticipated, but I don't have an immediate recollection of the details of the conversation.
Q. Just to be clear, I've been advised by Dr Kelly's counsel that the conversation that you had with Dr Kelly did not involve reference to Dr Crean. But you seem quite confident that you did bring that --
A. I can't remember whether I used Dr Crean's name, but the start of the episode, the start of the notification episode, was "somebody in the Royal", if I could put it like that. I had written Dr Crean's name in the notes and I think I had physically brought the notes to that meeting with Dr Kelly. Whether I used Dr Crean's name or not, I honestly can't remember. When I referred to notifying back to Dr Crean, I don't know that I necessarily meant that I could remember using Dr Crean's name, for example.
THE CHAIRMAN: Does that mean but for the phone call from Dr Crean you might not have gone to Dr Kelly at all?

A. There was no increased clarity about what had happened. Dr Hanrahan rang, had done some investigations, a post-mortem was happening. If I had received a discharge summary letter which had said there was some rare neurological disorder that I'd never heard of and which we hadn't identified, that would have been one issue. If there had been information that all of the investigations were normal and the following were the conclusions, that might have been another circumstance that would have led me to notify Dr Kelly.
THE CHAIRMAN: In this case the starting point for going to Dr Kelly was Dr Crean's phone call.
A. That's right.
THE CHAIRMAN: But for Dr Crean's phone call or any subsequent information, you would not have gone to Dr Kelly to say, "I think you should know there has been a disaster on the children's ward, I don't know why it happened, but a little girl came in here yesterday evening to be rehydrated, she had moderate dehydration, apparently had gastroenteritis, and she coned at 3 o'clock this morning"? That information would not have been provided to Dr Kelly but for information coming from the Royal?
A. I can't say that is necessarily the case. It wasn't long after I got back from the Royal that Dr Crean was

in touch. There wouldn't have been enough time to have done anything before, much before, Dr Crean was in touch. I can only hypothesise. I believe that it was such a disastrous outcome that unless I heard a satisfactory explanation for it, it would have been something that I would have wanted to enquire into further.

MR WOLFE: So in terms of raising with Dr Kelly the input of Dr Crean, you are saying you may not have used his name specifically, you may instead simply have said, "I have been in touch with the Royal", or, "The Royal has been in touch with me"?

A. I could have done. That's possible.

Q. Very well. You have told the inquiry in your witness statement that you believe that you discussed the repeat electrolyte results with Dr Kelly when you notified him about the case.

A. Yes, I believe I did. But again, I don't have a vivid recall of that discussion.

Q. What is your process of reasoning for thinking that you did, for believing that you did?

A. I don't have any specific reason behind that. I was asked a question and provided the answer that seemed to me to be a true response to that. I don't have any particular recollection to say that I remembered the

flow of the conversation and it came up at this point or at that point in that context. I don't.

Q. Did you answer yes to that question because you think it reasonable that you would impart such information?

A. I think that probably was -- yes, rather than specifically remembering it.

Q. Again, I'm advised that Dr Kelly would say that he does not accept that you discussed the repeat electrolyte results with him.

A. He may be correct. I don't have a specific recollection.

Q. In terms of the description of Lucy's fluid regime, did you discuss with him that there had been a significant error in terms of the fluids that she had received?

A. I believe I drew his attention to the conversation, the phone conversation, which had drawn this to my attention, which was, as I have said, a significant discrepancy.

Q. Do you think you discussed the specific fluid regime that was intended and compared it with the fluid regime that she had received?

A. I don't remember going over the calculations, the numbers, and I doubt if that happened.

Q. He has set out in his account to the PSNI, when interviewed, an account at 116-043-003, which I would

ask you to look at. That looks like a rogue reference.

THE CHAIRMAN: Is this the conversation between Dr Kelly and Dr O'Donohoe?

MR WOLFE: Yes.

THE CHAIRMAN: It started at the bottom of the previous page and continued into this page.

MR WOLFE: Maybe if I have 002 alongside it, please.

THE CHAIRMAN: It's the last five or six lines.

MR WOLFE: If we could start with:

"Dr O'Donohoe outlined that he was raising this under critical incident reporting."

What's that? What is critical incident reporting?

A. Where a person deteriorates, I was using it in the -- my understanding of the term where a person deteriorates unexpectedly.

Q. And for which you haven't got an explanation?

A. Yes, for which you don't have an explanation, yes.

Q. He recalls that you informed him that the child had been admitted with diarrhoea and vomiting and had subsequently suffered an unexplained collapse, requiring resuscitation, and -- I think that should say "intubation".

A. Yes, that's correct.

Q. He explained that he had transferred the child to PICU at the Royal, you advised him that the child was on

a ventilator at the Royal, but her prognosis appeared poor, brainstem tests were planned. You said that you weren't sure what was happening:

"[You] stated that there may have been a misdiagnosis, the wrong drug had been prescribed, or the child had an adverse drug reaction."

What drugs had been prescribed that might have given rise to that thought?

A. I don't know that that was a specific suggestion. I think that was -- that's a manifestation of the fact that I didn't understand what was going on. I think it was in terms of, "What else might there be? What might you not have thought of?"

Q. I should have said that is Dr Kelly's recollection.

A. I understand that and I'm not disputing it. It's not my recollection, but I'm not disputing that that could have happened and all I can do is speculate about the possible context in which I might have said that. I don't remember those specific words. I'm not disputing his recollection in that regard. I can easily understand if I didn't know what had happened and that the question would be, "What could have --

Q. Are you surmising then that although no drugs had been prescribed for this child pre-collapse, that somehow or other a drug might have got into her system?

A. It wouldn't be outside the realms of possibility. It wasn't something I was something suggesting as an active possibility, but if you don't know what has happened and if you don't understand what has happened and if you're scratching your head trying to think of what might be relevant, I don't think that's an unreasonable suggestion to raise. It wasn't one I was pushing forward in any sense. It was just a thought.
Q. Of course, this may not have all happened in the order that he recites it to the police. He then says you explained that there had been some confusion over fluids.
A. Yes.
Q. Which in terms of how it's described there seems rather -- a rather modest way to describe what was clearly a fairly significant departure from your fluid prescription, about which you knew.
A. I don't remember the words that were used in that context. I don't believe that I'd been able to satisfy myself that I was sure what fluids had been given. In order to do that, I think it would have involved identifying which nurses had recorded what and so on and trying to confirm what had been given. So I don't think I was in a position to be any stronger than that, although I don't remember that those were the actual

words that I used.
Q. But you were satisfied on the basis of your consideration of the notes that 100 ml of Solution No. 18 had been given every hour from 10.30 --
A. No, I was satisfied on looking at the notes that what Dr Crean had told me was what was recorded in the notes. That's not necessarily the same thing as what actually would have happened.
Q. So you were inviting Dr Kelly to investigate all of this?
A. Yes, I wasn't trying to -- I don't recall trying to point him in any particular direction.
Q. If at that stage you had obtained information from the notes that there had been this difficulty, to put it at its mildest, over fluid administration, is that not something that you should have been shouting loud and clearly about?
A. I don't remember the full details of the conversation and Dr Kelly will undoubtedly be spoken to as well. I do recall having seen a written account of the conversation with him, in which I may have been somewhat shouting, if I can put it like that, not necessarily in a particularly clear-minded fashion. I think agitated might be the word.
Q. Did you tell Dr Kelly about the input of 500 ml of

normal saline?
A. I don't remember the detail, I am sure I brought the records with me. I don't think Dr Kelly particularly wanted to go over the written records that there were. I think my visit there was to tell him there was a serious episode. He, as he's indicated -- and I understood there was going to be an investigation, an examination of the issues, undertaken fairly promptly.
Q. Did you express any view as to what might have happened to cause this child's deterioration?
A. No, I don't think I did.
Q. At or around this time -- and I mean the days after Lucy's transfer to the Royal -- you spoke to Dr Hanrahan at the Royal.
A. That's correct, yes.
Q. Dr Hanrahan was the neurologist who was, in part, treating Lucy.
A. So I believe, yes.
Q. There's a note written into the Erne notes for 18 April, which records that:
"A verbal report of a post-mortem had indicated rota gastroenteritis and cerebral oedema."
A. Yes, I remember that, and it's not on the screen, but I do believe I wrote that.
Q. Did you receive that report from --

A. I received the report, but I can't remember whether I received it first-hand or whether that was relayed to me by somebody else. If I'd received it directly from the Royal, I would normally -- as I did, for example, with Dr Crean -- have written who it came from. But I can't remember specifically whether it was directly to me or via somebody else.
Q. You were also told on 14 April that there wasn't to be an inquest, isn't that right, there wasn't to be a coroner's post-mortem?
A. I believe that Dr Hanrahan told me that on the 14th. I think it was the 14th, yes.
Q. And did Dr Hanrahan convey that information to you?
A. I believe so, yes.
Q. When he was conveying the information to you about the fact that the case had been reported to the coroner's office and there wasn't to be a post-mortem, did you get into a discussion about his understanding of that and why that was the conclusion?
A. Why there wasn't to be a?
Q. A coroner-led post-mortem?
A. No, I don't think he gave me any indication as to -- reasons were given. I don't recall there being any reasons given.
THE CHAIRMAN: Were you surprised?

A. In one sense I was, but on the other hand, not having any previous experience of the Coroner's Service of Northern Ireland, I didn't know if that was common practice or not. I had anticipated there would be a post-mortem.

THE CHAIRMAN: Had you any previous from your time in Roehampton of the Coroner's Service?

A. Yes, I had been in touch, dealing with the coroner, on a number of occasions.

THE CHAIRMAN: By this time you'd been a consultant for eight years.

A. Yes.

THE CHAIRMAN: Did it not strike you that, under UK law -- and accepting that English law is not identical to Northern Irish law -- that this was apparently a very clear case for a coroner's post-mortem and inquest?

A. I couldn't have quoted the legislation, but I didn't understand the connection between the cerebral oedema, which had happened, and the antecedents. If I'd understood that, from what I now know of the legislation, it would have been a clear indication to report. If I'd contacted the coroner, I would have said: a child has died of unexplained cerebral oedema, there's some discrepancy in the notes. That's as much as I would have been able to report.

THE CHAIRMAN: You would have been able to say much more than that. You would have been able to say that: a previously healthy 17-month-old girl came in with a comparatively minor illness and, within a few hours, she was dead, she received excess fluid, she died as a result of cerebral oedema, I don't understand what happened, nobody I know can understand what happened, this is an unexplained, unexpected death of a previously healthy child, I'm reporting it to you because I believe there should be an inquest.

A. I didn't -- that line of thought did not occur to me. Dr Hanrahan informed me he had discussed the situation with the coroner. I suppose ...

THE CHAIRMAN: If you don't have a coroner's inquest into Lucy's case, when do you have a coroner's inquest?

A. That's not entirely for me to answer because this was a discussion between Dr Hanrahan and the coroner's office. That information was relayed to me as a fait accompli, I suppose ...

THE CHAIRMAN: I'm sorry, I think Mr Wolfe is about to take you on to the point that it's not a matter for you.

MR WOLFE: By this stage, the afternoon of 14 April, Lucy is now dead.

A. Yes, that's right.

Q. You have had a conversation with Dr Kelly.

A. Yes.

Q. You had worked out that there had been, at best, an inconsistency in the documentation of the fluids and, at its worst -- and as we now know factually -- a clear departure from your fluid regime. Was that latter factor not the kind of thing you were sharing with Dr Hanrahan?

A. Most of the conversations I recall about possible causes were to do with neurological disorders. He had undertaken a number of investigations to do with unusual possibilities that had occurred to him about cerebral oedema. My understanding was that that was the line of enquiry he was pursuing.

Q. But you had information which perhaps he didn't have, that there had been a fluid error, or at least a suspicion of a fluid error?

A. That had been drawn to my attention by Dr Crean in the Children's Hospital.

Q. Yes.

A. I don't remember asking was he aware of that, but that information was within the Children's Hospital, so I imagine he must have known.

Q. But is it not surprising that that didn't emerge as a topic of conversation between you two?

A. I didn't find myself surprised because he was talking

about neurological disorders, rather rare disorders, and many of the things he was talking about were conditions that I would have very little knowledge of.

Q. Well, you have said quite often today that you didn't draw the connection between the fluid mismanagement, doctor, and the cerebral oedema. But presumably you did draw a connection between the fluid mismanagement and the hyponatraemia.

A. I don't remember looking at it specifically in that sense. The hyponatraemia was not -- and this was my -- I accept this was my limitation and a defect. The hyponatraemia was not proportionate to what I'd seen in terms of the catastrophic deterioration.

Q. The coroner has spoken publicly about his disappointment that the death of Lucy Crawford didn't make it to his attention. And what he says is that in terms of the legal obligation to report Lucy's death into his office, not only did it rest with Dr Hanrahan and the Royal, but it also rested with the clinicians in the Erne Hospital who were aware of Lucy's moribund condition as they transferred her to the Royal. Have you seen that comment by him?

A. I have seen comments to that effect, yes.

Q. Bearing in mind section 7 of the Coroner's Act, do you now see his point that there was an obligation on any or

every medical practitioner who had the requisite knowledge to make a report to his office?
A. I'm sorry, can you repeat the question?
Q. Do you see his point under section 7?
A. Yes. I couldn't have quoted the words to analyse it in the terms you're talking about, I couldn't have done that at the time. I didn't identify a legal obligation. And in no subsequent conversations did anyone say to me -- no people with greater familiarity maybe with Northern Ireland procedure have raised it with me. So it wasn't a matter of me saying to myself, "I have a legal obligation here, but I will not discharge my legal obligation". Is that the question ... Is that what we're ...
Q. What are the obligations in the Republic of Ireland?
A. I have spent most of my career working in England. I have never been able to quote, wouldn't be able to quote, the obligations. There have been a list of conventions, circumstances, under which, in individual departments, things would be notified. Most of these tended, as far as my recollection over the years, to emanate from the individual coroners in the individual areas, who would disseminate -- I suppose, "This is particularly important, we've had problems in this area, so these are the situations". I couldn't have quoted

the specific obligation, I'll have to be honest.
Q. Would you have seen yourself as having had a similar obligation in England when you worked there?
A. I don't recall a situation which was in any way parallel to this, but I have no recollection of hearing of more than one person notifying the same issue to the coroner. It was not something that I'd ever come across. I'm not saying that means it couldn't happen, I'm just saying I've never heard of it.
Q. You say you were surprised that this wasn't going down the coroner's route.
A. Yes.
Q. But you didn't, it appears, check to ascertain from Dr Hanrahan just why it wasn't going down the --
A. I don't remember exactly what the conversation, how it flowed, so I can't say whether I said to him specifically, "But surely they must have given you a reason". I don't think I asked him for a specific reason. He didn't volunteer a reason and I suppose I got the impression that the coroner had said no, so we do what the coroner says, and that was the end of it from the coroner's aspect.
Q. Why didn't you make a report yourself?
A. I didn't make the requisite association. You've drawn my attention, as the coroner has, to legal obligations.

I didn't realise at that time I could be seen to be under a legal obligation to report something that had already been notified to the coroner.
THE CHAIRMAN: Does that mean that in the eight years that you'd worked in the Erne that you had not received any instruction on the circumstances in which doctors are obliged to report a death to the coroner?
A. One of the coroners has, over the last two or three years, done an annual training session, which I have attended over the last three years. Prior to that, no.
THE CHAIRMAN: You joined the Erne in 1992.
A. I'm sorry, I'd have to look. 1997.
THE CHAIRMAN: Sorry, 1997. So from 1997 to 2000, you had received no training in the Erne about your obligation to report a death to the coroner. And had you been trained or been given instruction in Roehampton between 1992 and 1997?
A. Not that I recall. Again, I'm not sure that I can actually recall when I last had any specific training on those issues, even going back further than that.
MR WOLFE: I realise this is hypothetical, but in terms of what the coroner should have been told, if you were reporting the death, would it have been a matter of significance to note the fluid errors and report them?
A. I think it would have been important to try and gather

all of the information together, what Dr Crean thought, for example, or any of the other people in the intensive care unit, what Dr Hanrahan thought, and submit as much of that as was available. That would include the fluid issues if they were believed to have a connection to the deterioration.
Q. Was it a matter that you reported back to your colleagues in the Erne that the coroner was not pursuing this matter?
A. I can't remember who I told and at what point I told people. My recollection is that that phone call came through late on the Friday afternoon.
Q. Yes.
A. So I don't remember chasing anyone, Dr Kelly, for example. I don't remember talking to him subsequently that day. So I don't know if I did tell him, when I told him. I don't recall.
Q. Do you think it likely you told him?
A. I have no recollection. I certainly think it's possible, but I don't recall any conversation in which it did happen.
Q. It was obviously of significance that there wasn't to be a coroner's led post-mortem.
A. Yes. Dr Hanrahan did tell me at the same time that he was pursuing, I suppose, what would be known as

a hospital post-mortem.
Q. As I've said, at or around this time, you're having a number of conversations with different people. You spoke to Dr Malik at or around this time about the death and its potential implications.
A. I did speak to him, yes.
Q. Dr Malik met with Dr Kelly some months later in November 2000 to discuss the complaint that had been made by Dr Asghar in relation to you.
A. That's correct, yes.
Q. And if I could have up on the screen, please, 036c-011-034. The second entry from the top, Dr Malik in this interview with Dr Kelly, which is taking place several months later on 7 November, but he's saying by reference to the Monday -- that's presumably the Monday after Lucy's death -- that he was explaining how he had been called by Dr O'Donohoe to discuss the Lucy Crawford case. It was clear to Dr Malik that Dr O'Donohoe was upset by the death:
"Dr O'Donohoe explained that there would be an enquiry into the circumstances surrounding the death. This might lead to outside review of the case by the College of Paediatricians and may even lead to a court case. [Dr Malik] was advised that as the SHO directly involved, he may need to contact the BMA and should

consider seeking support from colleagues. Dr Malik was asked had he any close friends among the doctors connected talk with and, in particular, if anyone from the same cultural or national background would be available to provide support."
So the nature of that conversation, do you agree with that account?
A. I approached Dr Malik to let him know that I'd informed Dr Kelly. Dr Malik was very concerned. My understanding of what he was telling me was that in Pakistan, if such a thing happened, he would be concerned that he as the lowest member of the -- the least grade would be singled out to be criticised, to be blamed for everything that happened. I was trying to explain to him that I did not believe that that would be the case here, and I did go over the various ways in which people might be criticised. And I did suggest to him that he take whatever support he felt would be appropriate. I didn't necessarily expect him to believe my version of how things would work.
Q. What were the various ways which you explained in which people could be criticised?
A. He did, I think, talk about various forms of legal action in the Pakistani context, and I did tell him if he was concerned about possibilities like that, then he

should seek support from organisations like the BMA or the Medical Defence Union --
Q. Sorry, just to cut across you --
THE CHAIRMAN: That's not the point you're being asked.
MR WOLFE: The point I'm asking you, doctor, is this: you said you outlined to him the various ways in which he could be criticised.
A. Yes, his --
Q. What were those ways? What were those things?
A. I think the way it worked was that he explained to me what his worries were and I told him the only ways in which you can be dealt with here would be the following mechanisms, that if somebody wanted to take you to court, it would be in this context, and your protection is that you would do X, Y or Z --
THE CHAIRMAN: Doctor, I'm afraid we're missing the point. It's not whether you can be sued or reported to the GMC or whatever; it's what you were being reported or sued for. What criticisms did you suggest he might be vulnerable to?
A. Oh, I see. I didn't suggest any particular criticisms he might be vulnerable to. I think I was trying to do the opposite, in fact.
THE CHAIRMAN: What, suggesting that he wasn't vulnerable to criticism?

A. No, I think I was trying to be supportive to somebody who was extremely nervous in the context of not having been working in the UK a very long time and considering himself very vulnerable to mistreatment, if I may use that phrase.
MR WOLFE: Why did he think that? Was he concerned that something had gone wrong?
A. I told him that I had notified Dr Kelly. His experience -- as I understood what he was telling me, his experience of seniors investigating in the Pakistani context is, as I've indicated, that somebody could very well find themselves picked on and ganged up on, shall we say.
Q. Yes, but let's reduce this to the facts of the case. Dr Malik has sought you out, has he, or have you sought him out?
A. I think I sought him out. We may have just come across each other, but I think maybe I had seen him and I asked him if I could have a --
Q. And you're telling him that you've had to report this matter to Dr Kelly?
A. That's right, yes.
Q. And you have told him that there might be certain kinds of investigations?
A. That wasn't my initial approach to it. When he told me

what his concerns were, I told him that the ways in which you might have difficulties would be the following, and each difficulty -- for example, I don't know whether he said, "I might be taken to court", or, "Somebody might be taken to court", in which case my response would have been, you want to make sure you have your membership of the Medical Defence Union up-to-date.

Q. Why did he think he might be taken to court?

A. I don't think he had a very specific fear. He wasn't all that long in the UK from Pakistan and I think he felt that he, as a fairly recently arrived immigrant, would be seen as an obvious scapegoat, if I may use that word.

Q. A day or so earlier, you had told Dr Kelly, if his recollection is correct, that there may well have been a misdiagnosis, there could possibly have been a drug overdose or misprescription of drugs, and you alluded to the error with regard to fluids. In this context with Dr Malik, did you discuss any of those matters?

A. No, I don't believe I did.

Q. Why not?

A. The nature of the conversation is that I approached him to tell him what I had done. He was, I think, very upset and frightened by the possibility of him, if I can say, as the recently arrived immigrant, being badly

treated. And I tried to tell him that that is not generally how things would be done. I didn't pursue the issue of what had happened on the night in question. I didn't say to him, "You have made a wrong diagnosis", or, "You did anything wrong". I didn't make any accusations to him.

Q. Tell me, doctor, was there a general awkwardness about talking out loud about this?

A. In what sense?

Q. Here you have the --

THE CHAIRMAN: Facing up to it.

MR WOLFE: Here you have the doctor who was on duty during the relevant period of time and --

A. I told him I thought it was highly likely somebody would come and talk to him -- would ask for reports and come and talk to him about the night in question. I didn't know at that time who it would be.

Q. Could I just move on down towards the bottom --

A. If I just might -- what I didn't want to happen was for him to be approached, let's say, for example, by the medical director of the Trust to say, "Dr O'Donohoe says you were here and that something terrible happened". That is what I was trying to protect him -- guard him against.

Q. I should say in fairness to you, doctor, that although

I'm asking questions which are testing your recollection of this meeting, Dr Malik says complimentary things of you in this report, including, in terms, that you didn't put him under any pressure or cause him distress. I want to put that in the balance.

At the bottom of the page, Dr Malik recalls that:

"[You] told him that people might say the responsibility lies with [him]. Dr O'Donohoe explained that he would not let that happen."

A. I was saying that I would not let him be, if I can use the colloquial expression, dropped in it.

Q. He says that you said to him the ultimate responsibility lies with the consultant.

A. That is true, yes. I believe I said that. I believe I may have said that to him.

Q. He goes on to say that:

"Dr O'Donohoe did not tell me to write anything or indicate any specific changes to make. He did, however, offer the notes if I wanted to add any new comments."

Do you see that?

A. I see that, yes.

Q. Can you remember the context in which you made that suggestion?

A. I can't, no.

Q. Do you remember making that suggestion?

A. I don't particularly remember making that suggestion, no.

Q. Would it be an appropriate suggestion to make?

A. I had written -- you would not want anything written in the notes that would suggest it had been written other than when it was written or in what context it was written. So for example, I had recorded Dr Crean's name as having contacted me. And I tried to indicate when it had happened. I wasn't trying to indicate -- and I believed I dated it accurately. If something is written and dated accurately, then I don't see that it would necessarily be a problem.

Q. The impression I gain from your evidence, doctor, is that in this discussion with Dr Malik there was a refusal to become engaged in a discussion about the substance of Lucy's treatment and what might have led to her deterioration and death.

A. We didn't discuss the substance of it to any extent. I can't say that there was no allusion, no reference to any aspects of the treatment, but it was not a discussion about the substance of the matter. It was -- the meeting, from my point of view, was to let him know that I had notified Dr Kelly so that he wouldn't find himself cornered -- not cornered, approached -- without warning by somebody to say,

"Dr O'Donohoe has notified us of an episode".
Q. But what would be the substantive basis, doctor, for suggesting that if he wanted to add anything to the notes, any new comment, as it's referred to here, what would be the substantive basis for doing that? Why would you suggest that?
A. I don't know for sure if I did suggest that or not. I thought what you were asking me was: would it be appropriate for somebody to add such information? If it was dated and timed appropriately I don't believe that would be misleading anybody. It would be wrong to change something retrospectively. It would certainly be wrong to write in that I had done X, Y or Z two days ago. I certainly did not do that. That would not have been something -- even in my own note, which has been written, which has been criticised, I did not do that.
Q. By that stage in the piece, had it got round to Dr Malik that there had been this error with regard to fluid management?
A. I don't know. I don't recall it being raised. I don't know whether he had been around in the hospital over the weekend, for example. And I don't recall it featuring in our conversation.
Q. So although this was an issue that had perturbed you to the extent that you went and wrote this note and it

seemed to be at least part of the trigger, if not all of the trigger, for contacting Dr Kelly, this error in relation to fluid prescription wasn't something you were bringing to Dr Malik's attention?
A. I don't think I drew -- I can't remember specifically drawing it to his attention. What I was trying to draw to his attention was that he was likely to be asked for reports about what he had done. He may very well find himself being asked to attend to discuss issues with somebody who might be considerably higher in the hierarchy than he was. That was the extent -- I didn't discuss the substantive issues.
Q. But it seems surprising, doctor, that you wouldn't want to have his take on it, wouldn't want to have his view on it?
A. I don't think that it is surprising in the sense that I had notified Dr Kelly. If I had continued to discuss with everybody, I guess I would have been afraid of the interpretation: here he is trying to persuade or cajole people into saying things that he wants said. I tried to refrain from, in any way, trying to influence what people might say.
Q. You were informed shortly after the death, doctor, that there was to be a review into the treatment of Lucy; isn't that right?

A. I had asked for a review from Dr Kelly.
Q. You were approached by Dr Anderson to provide a report.
A. Yes. Can I just to be clear? There is a note which says that Mr Fee and Dr Anderson discussed the review with myself and a number of other people --
Q. Yes.
A. -- roughly, I think, a week after the episode happened. I have no recollection of that meeting. I don't believe that meeting ever happened. I don't believe I was ever formally informed as to who was conducting the review.
Q. In terms of who asked you to provide a report or a statement for the review, was that Dr Anderson?
A. He was the only person who approached me to provide a statement. I don't think I was aware -- I'm sure I wasn't aware at the time that he was part of the review. He hadn't told me and I don't believe anyone else had told me.
Q. And how did he approach you?
A. By letter, I believe.
Q. And I think we've asked you about this. You haven't retained the letter?
A. I have looked at home and I can't find the original letter.
Q. And the Trust has been asked in relation to that letter and hasn't been able to provide it. Having said that,

it has provided the correspondence that was issued to nursing staff.
A. Yes.
Q. And what did the letter to the best of your recollection ask you to do?
A. It was something like "a factual account of your involvement on that night" or words to that effect.
Q. And did it draw any attention to the fluid issue?
A. Not that I recall particularly, I don't recall it looking for a lot of details. When I previously discussed issues within the paediatric department with Dr Anderson, he tended to be fairly keen on a brief summary. In retrospect, it might have been better if I had told him everything including things that I didn't think he wanted to know and let him filter it through them himself. If I had been informed that he was the Trust inquiry, then my attitude would have been different.
THE CHAIRMAN: Sorry:
"If I'd been informed he was the Trust inquiry then my attitude would have been different."
What did you think he was?
A. He was the clinical director.
THE CHAIRMAN: Yes. You have reported an event to Dr Kelly, you have asked for a critical incident review to take

place, Dr Anderson asks you for a statement setting out the facts, but you didn't know that he was the Trust inquiry?
A. No.
THE CHAIRMAN: How could you not?
A. I'm not sure that I understand. Dr Anderson was the clinical director.
THE CHAIRMAN: Yes.
A. At best, he was uninvolved in the paediatric department. When I had, in general, tried to raise issues of concern when I'd first -- when he was first appointed, he had -- I won't say dismissed the possibility of any involvement, but he didn't wish to be overly involved in the paediatric section of the directorate. It was very much, as far as I was concerned, a nominal role that he played. And in that context --
THE CHAIRMAN: So he was the clinical director for -- is it mothers and childcare?
A. Women and children.
THE CHAIRMAN: Thank you.
MR WOLFE: If we could have up on the screen the report that you submitted to the review. 033-102-293. This is preceded by a covering letter, which we don't need to look at.
As we've established already, doctor, by the time

you came to write this report in early May 2000, you knew that Lucy had not received the fluid regime that you had intended for her.
A. I had been informed by Dr Crean. I hadn't gone to examine the issue in any detail. I hadn't spoken to any of the nurses, for example, to try and find out who had recorded what. So I don't know that I was in a position to have reached a definitive conclusion about the fluids by that stage. I hadn't heard about what enquiries had been made.
Q. Did anybody tell you in advance of providing your report that fluids were an issue that the review was going to be examining?
A. I had recorded in the notes that Dr Crean had contacted me.
Q. No, no. You missed my point. The review was focusing on the issue of fluids and the fluid management of Lucy. That was one of its primary considerations.
A. I'm sure it was. I wasn't informed as to the details of the remit of the review. I had written Dr Crean's name and an outline of the conversation, so the review could not help looking at the fluid issue, I don't think.
Q. Yes. So we have your report. It tells the reader the fluids that you had described or prescribed for Lucy, isn't that right --

A. Yes.
Q. -- and an explanation for that. It doesn't go on to explain to the reader that there was now some considerable doubt that she had ever received those fluids.
A. It doesn't, no. I was writing a report in the terms that normally Dr Anderson liked, as concise. I didn't get any further requests from him to --
THE CHAIRMAN: Sorry, doctor, could you bring up beside that on the screen the doctor's witness statement, 278/1, page 8? You have just given me the reason why you didn't include any more detail, which is that Dr Anderson liked short factual reports; isn't that right?
A. That was my recollection of the terms in which --
THE CHAIRMAN: Look at page 8. This is your written response to the inquiry in January 2013 when these questions were asked. Paragraph (d):
"If you knew at the time of writing your report for Dr Anderson that Lucy hadn't received the fluid regime, why did you omit to mention it? I cannot remember why."
A. Yes.
THE CHAIRMAN: "Why did you omit to state in your report for Dr Anderson the fluids that Lucy actually received? I cannot now remember why."

Today you remember. Today you tell me it's because: Dr Anderson liked short factual statements and I didn't know he was doing the Trust report. So why did you not give that information in the answers to the inquiry in January this year?
A. I didn't know he wasn't doing the Trust inquiry. I didn't connect that with the question that was being asked.
THE CHAIRMAN: You're being asked specifically why you left certain information out of the statement which is on the left side of the screen.
A. Yes.
THE CHAIRMAN: Today you've given me two reasons for that: one is that you didn't know that Dr Anderson was doing the Trust inquiry, and the second is that in any event Dr Anderson liked short factual reports. Those are your reasons.
A. Yes.
THE CHAIRMAN: Those are precisely the questions that you were asked in January and you couldn't remember why you left out the information. When did you come up with today's answers?
A. I can't remember what the ... what I was referring to. There was never any --
THE CHAIRMAN: Do you agree that the questions on the

right-hand side of the screen are entirely unambiguous? Question (d) and (e), (f) and,for that matter, (g).

A. Yes, I think they're very clear questions.

THE CHAIRMAN: Thank you. We can move on, Mr Wolfe.

MR WOLFE: If you were seeking to write a statement in accordance with the directions to you, which was to provide a factual account, you could have provided much more information about the fluid regime.

A. I could have provided him with much more information and I should have provided him with much more information.

Q. So you could have provided information about your suspicions that the child didn't get what you had prescribed?

A. I could have drawn his attention specifically to that conversation with Dr Crean. I don't know -- the screen has gone blank -- I don't think I referred to the discussions with Dr Kelly, for example. I don't think I referred to any of the discussions with Dr Malik and a number of other things. There was a lot of other information I could have made available to him.

I did go to the -- I did write in there that the sodium of 127 was not a level at which I thought a hyponatraemic convulsion was very likely.

Q. I saw that, which indicates, doctor, that you were giving some consideration to the role played by fluids.

A. I was giving some consideration to the issue of the sodium -- this is referring to the night in question.

Q. Yes.

A. You see any abnormal result, you're trying to figure out what's the likely significance of that.

Q. Yes.

A. And I didn't attribute the significance that this profound deterioration was related to this sodium level.

Q. And nor, for that matter, did you make any reference to the fluids that you absolutely knew that she had received after the collapse.

A. No, I didn't, no.

Q. Nor did you allude to in any sense at all the sequence leading up to the bloods that were taken.

A. No. I had notified Dr Kelly and I understood those issues were to be investigated.

Q. Well, what was the point of gathering a statement from you for the purposes of an investigation if you're not going to put the material down on paper?

A. I wasn't aware that this statement was for the purposes of the investigation.

Q. Well, he --

A. I was never told he was part of the investigation. Personally -- and I mean no criticism of Dr Anderson when I say this -- I don't think he is somebody that

I would have anticipated as being an appropriate person, a person who could see it through in great detail. He had very little experience of paediatrics. He had worked for most of his career in South Africa, only having returned to Northern Ireland fairly recently, and he had worked in private practice. I wouldn't -- if you would ask me to pick somebody from the hospital who might look into it, I don't think he would come anywhere near the top of the list, to be honest.

Q. What did you think the purpose of your report was for?

A. For his own information --

Q. Right.

A. -- as clinical director in the sense of "things are happening in my directorate".

Q. That went in and you thought it was for his benefit, for his information?

A. Yes.

Q. You must have been curious as to when this investigation was going to start.

A. Yes.

Q. Did you ask any questions about that?

A. Of Dr Anderson?

Q. Of Dr Kelly or Dr Anderson.

A. I spoke to Dr Kelly, I think, on three separate occasions. The first one was when I notified him. The

second one, he informed me that Dr Quinn had been approached.

Q. Yes.

A. And the third one was when he told me that Dr Quinn had issued a report. No copy of the report was available to me at that stage.

Q. And you didn't connect up the dots to realise that you were contributing to a review, part of which was being assisted by Dr Quinn's input?

A. I'm sorry, which dots are we ...

Q. You were asked by letter to provide a report.

A. By Dr Anderson, yes.

Q. Dr Quinn was on the other side of the review, carrying out --

A. A review of the notes.

Q. -- some analysis of the notes?

A. Yes.

Q. Did you at any time join up the dots in order to conclude that the statement that you provided was being used as part of that review?

A. That was being sent to Dr Quinn, for example?

Q. Not sent to Dr Quinn necessarily, but was a contribution -- your statement was a contribution to the review.

A. No, I don't believe I was told that it was.

Q. When it came to providing a statement for the purposes of the coronial process in 2003, as we saw this morning, you provided a statement to Dr Kelly, which referred to the fluids that were given post-collapse, and you provided a critique of that; do you remember that?
A. I do remember that, yes.
Q. We needn't bring it up on the screen. That was the kind of information that you could have easily brought to the attention of the review at the time in May 2000.
A. I could have, if I had been approached by -- first of all, my recollection is that I had one letter from Dr Anderson. I replied in the terms you have seen. I wasn't approached further by him, neither by letter, nor to discuss the issues further. If I had been asked at the time, "How successful was your letter to Dr Anderson?", I think not having had any further enquiries, I would have thought I have judged what he wants correctly and I have given him the information he wants. He did not speak to me subsequently about the matter, nor did he write to me subsequently about the matter.
Q. Just so we're clear, because those who coordinated the review have yet to give evidence: you didn't understand that the report that you provided was a contribution to the review?

A. I wasn't told who was doing the review. I would have had no objection to the report being made available to whoever wished to see it. It wasn't in any sense reserved.
Q. You weren't directed to give information specifically around the fluid regime.
A. Not that I remember, but I'll have to confess I haven't seen the letter for many years now. I hadn't looked into the fluids, I hadn't gone over the charts, for example, with the nursing staff to try to identify who had written what. It subsequently turns out that there are various misprints and miscalculations and so on. I didn't identify those; those were identified by other people.
Q. And you weren't followed up on your report after submitting it by Dr Anderson or anybody else?
A. No.
Q. The GMC have a guide called Good Medical Practice, which discusses obligations of the medical profession in terms of disseminating or disclosing relevant information. Can I draw some of those paragraphs to your attention? If we could have up on the screen, please, 315-002-009. Under the heading, "If things go wrong", it says:
"If a patient under 16 died, you must explain, to the best of your knowledge, the reasons for, and the

circumstances of, the deaths to those with parental responsibility."
And we'll go on presently just to look at your interaction with Mr and Mrs Crawford. But in this context as well, if we could look at 19:
"Subject to your right not to provide evidence which may lead to criminal proceedings being taken against you, you must cooperate fully with any formal inquiry into the treatment of a patient. You should not withhold relevant information. Similarly, you must assist the coroner or procurator fiscal when an inquest or inquiry is held into a patient's death."
Could we skip to paragraph 23, two pages further on?:
"Your duty to protect all patients. You must protect patients when you believe that a doctor's or other colleague's health, conduct or performance is a threat to them.
"Before taking action, you should do your best to find out the facts. Then, if necessary, you must follow your employer's procedures or tell an appropriate person from the employing authority, such as the director of public health ..."
All of these principles, doctor, if I could take them in the round, impose upon a doctor an obligation to

disclose as much as possible about the cause of the deterioration or the death of a patient; do you accept that?
A. I do.
Q. And you had a lot more information that you could have given --
A. To Dr Anderson.
Q. To Dr Anderson.
A. If I could say that I had notified Dr Kelly. I had not had any approach -- Mr Fee and Dr Anderson may have -- they support that suggestion that they had talked to me and others to tell us what was happening. Dr Anderson approached me by letter, I believe, subsequently. There was no announcement, "I am now the official -- or, "Myself and Mr Fee -- who, I believe, were central to this investigation -- were relevant. I had spoken to Dr Kelly three times, and while I have no reason to believe he had hidden this from me, I don't think that Dr Anderson's name came up in the conversation at any stage.
Q. You were subsequently shown a copy of the review and Dr Quinn's report; is that correct?
A. I was, yes. That I think was probably in 2004.
Q. Was it not much sooner than that? You met with Dr Kelly on 28 June 2000 to discuss Dr Quinn's report.

A. Yes, he told me about the report. He didn't give me a copy of it. I did ask if I could have a copy. I think he told me he didn't have a copy available to give me and I did ask to have a copy. I didn't see the actual report until, I think, 2004.
Q. Could I have up on the screen, please, 033-102-271? If we could highlight the bottom section.
This is Dr Quinn's report for the Trust, which you say you didn't see until 2004.
A. That's my recollection, yes.
Q. As I say, Dr Kelly would say that he met you on 28 June 2000 to discuss Dr Quinn's report.
A. He did, yes.
Q. And --
A. I can't say the exact date, but I do recall meeting.
Q. Dr Quinn has recorded in his report that:
"Lucy was treated with Solution No. 18, which would be appropriate."
Was that view shared with you by Dr Kelly?
A. I can't remember the words. It was words to the effect that Dr Quinn has looked at the papers. I think the fluids were referred to as -- fluids were not the issue or were not the problem. Words to that effect. I did ask to see the report so I could look at the analysis to see if I could understand and clarify things in my mind.

But like I say, it was certainly some years before I saw the report.
THE CHAIRMAN: Sorry, just pause there. You're saying that on some date that you're not sure of, but Dr Kelly seems to put in June 2000, Dr Kelly spoke to you about Dr Quinn's report?
A. That's right, yes.
THE CHAIRMAN: And he told you in terms fluids aren't the issue?
A. Yes. I'm not quoting verbatim, but --
THE CHAIRMAN: And you asked to see Dr Quinn's report?
A. That's right, yes.
THE CHAIRMAN: Did he refuse to give it to you?
A. No, my recollection is that he told me he didn't have a copy of the report. Again, I don't think he said this, but I think the sequence was that the chief executive officer had contacted Dr Quinn. My recollection -- and this is a rather dim recollection -- is that the report had come back to the chief executive. Certainly Dr Kelly, I don't think, had a copy in his hand when we were talking, for example, and I did ask to have a copy of it.
THE CHAIRMAN: Did he say he would get one to you?
A. Yes, he did.
THE CHAIRMAN: And did he?

A. I don't think I saw it for some years. I think what he probably said was "I'll let you have one when it becomes available to me", or words to that effect. So I don't know when he might have had the actual official documents, for example.
THE CHAIRMAN: I'm sorry. If it wasn't even available to Dr Kelly, what sort of discussion could Dr Kelly possibly have had with you about the report?
A. It was a very brief and, I think, superficial discussion, which is why I asked to see the written document.
THE CHAIRMAN: Thank you.
MR WOLFE: If you'd been shown the report, which indicated that Solution No. 18 was the appropriate fluid and that the volume of Solution No. 18 was expressed as being appropriate as well, you would have had problems with that, would you?
A. It's not a very clear -- the paragraph you're showing me -- and I may have forgotten other parts of the report -- it says:
"She was treated with Solution No. 18, which would be appropriate."
That would not be appropriate for all of the treatments. It would not be the only treatment. If he is saying that Solution No. 18 as a maintenance fluid

for the maintenance part of the treatment was reasonable, I would accept that. I saw this report after having seen Dr Sumner's -- I believe I first saw it after Dr Sumner's report and I think Dr Sumner's analysis is very convincing and persuasive, so I've read this report in the light --
Q. Dr Quinn is not saying that. He's been made aware that the child received Solution No. 18 exclusively. By contrast, you were aware that that wasn't the regime that you had prescribed. You wouldn't have regarded Solution No. 18 --
A. Not for a bolus, for the first section. The first hour I'm referring to, I mean the bolus. Thereafter Solution No. 18 would have been used by a lot of people and I would have wished to see oral rehydration fluid as well.
Q. Of course, but in your terms, doctor, Lucy had received four boluses of Solution No. 18: 100 ml an hour running from 10.30 until shortly after 3 o'clock.
A. I am sorry, yes. I see the point. No, that was not what I intended. I don't think that was appropriate.
Q. And therefore, if you had seen this report -- and you say you didn't see the report until probably 2004 -- upon reading it, you would have said, "This doesn't seem appropriate to me"; is that fair?

A. There are a number of respects in which -- if I'd seen the report, I would have gone through it and would have approached Dr Quinn to clarify. He seems to be willing, for example, to accept the idea of cerebral oedema without any underlying cause, without further exploration with experts who might have some knowledge of that. I'm sure he has seen relatively little cerebral oedema, as I have, and has relatively little knowledge of the topic.
Q. That's my point, doctor: that there doesn't appear to have been interaction with you with regards to the detail of this report.
A. No, no, there wasn't, no. Not at that stage.
Q. You had contact with Dr Hanrahan of the Royal in or about 16 June.
A. I have seen reference to that. I have no recollection of that meeting. I think it's very unlikely, I have to say, but I don't know who -- I think I've said I had such a meeting. I don't know where that idea came from.
Q. Could I have up on the screen, please, 030-007-012? This is an extract from Mr Mills, chief executive of the Sperrin Lakeland Trust, his file, 16 June 2000, according to this key date timeline:
"JOD had informal meeting with Dr Hanrahan, paediatrician in Belfast, and discussed the PM report."

A. I don't recall any such meeting, and I -- this is what I was referring to.
Q. In fairness, I think Dr Hanrahan has expressed the same view; he doesn't know anything about this.
A. I would agree with that. I can't say how this came to be.
Q. Is there any -- did you give anybody any basis for thinking you did ever meet him in Belfast?
A. Not in this context. If somebody had said, "Have you met Dr Hanrahan?", clearly I might have met him on occasion, but I have no recollection of that issue being raised in this context.
Q. In the PICU notes for Lucy for 14 June, in other words two days previously, Dr Hanrahan recorded that he contacted you and that you would see Lucy's parents again, but you would rather await the post-mortem report. So you had already seen Lucy's parents in May --
A. That's correct.
Q. -- and Dr Hanrahan was contacting you again to ask if you would see the parents again?
A. Yes.
Q. Do you remember that?
A. I do remember that conversation as having happened. I can't date it very precisely.

Q. Do you know why he wanted you to see them again?
A. No, I don't think he gave me any specific indication.
Q. You explained to him that you'd rather await the receipt of the post-mortem report?
A. Yes. I hadn't seen a discharge summary, for example, and I don't think I'd seen the post-mortem report at that stage. So in reality, I would have heard about Dr Quinn's -- I think the meeting ... I think the meeting with Dr Kelly would probably have preceded that meeting with the parents. I'm not 100 per cent sure.
Q. No, no, the meeting with Dr Kelly happened towards the end of the month.
A. Did it? Okay, there may have been --
Q. There were other meetings with Dr Kelly, which we'll briefly turn to.
A. I'm sorry, what was the ...
Q. The follow-up question was: it doesn't appear that you had a second meeting with the parents --
A. I didn't, no.
Q. -- upon receipt of the post-mortem report? Why not?
A. I don't know when I received the post-mortem report. I've been slightly confused by the fact that there are a number of post-mortem reports referred to and addenda to them, and certainly none were sent to me. I think I may have acquired a copy of a post-mortem report,

possibly from the GP, but I don't believe one had been sent to me directly, and I don't know which one -- when I did see it, I don't know which of the versions of the post-mortem I've seen referred to would have been involved.
Q. You wrote to Dr Kelly upon receiving the post-mortem report; isn't that right?
A. I may very well have done. I don't remember that particular letter.
Q. I will bring the reference up when I find it, but it seemed to be -- you wrote into that note to Dr Kelly that:
"The post-mortem report had emphasised the importance or significance of bronchopneumonia."
A. I remember now, yes.
Q. And you had difficulty understanding or following that --
A. That's right.
Q. -- because the suggestion was that the bronchopneumonia was of some duration?
A. That's right, yes.
Q. Do you remember that?
A. I do, yes.
Q. And why did that surprise you? Why did it surprise you that the post-mortem report was focusing on that issue

and suggesting that it was of some duration?
A. The fact that there were findings of pneumonia on the post-mortem report didn't surprise me very greatly. As I understand it, that's not an uncommon occurrence in people who have been intubated and ventilated. I wasn't aware that you could date the duration of those changes in any way from the changes on the -- that the pathologist would have seen. I didn't know it was possible to do that.
Q. Well, it was your understanding that clinically there was no evidence of pneumonia.
A. That's right.
Q. In fact, chest X-rays and --
A. Was clear, as I recall.
Q. Yes.
A. So I couldn't ... I think I used a phrase -- I didn't know what to make of that, and that's literally -- I couldn't figure out how to address that issue.
Q. Upon receipt of the post-mortem report, which you obviously received in June in order to write to Dr Kelly in those terms, why didn't you then meet the parents?
A. I don't remember to be honest about it. I think I may have had a subsequent meeting with Dr Kelly later on. I don't know whether I was looking for further information, whether I was hoping I would have

a discharge summary of investigations and so on. I don't remember.
Q. You see, doctor, the impression to be formed from the first meeting with the parents in May 2000 was that that was, from the parents' perspective, a rather unhappy event in that you presented yourself at the meeting without Lucy's notes --
A. Yes, that's correct.
Q. -- and were unable to answer any of their questions, it seems --
A. It was a very unsatisfactory meeting from their point of view. I have no doubt about that whatsoever.
Q. But what you --
THE CHAIRMAN: Does that not make it all the more important that you meet the parents in a more satisfactory manner after you've received the post-mortem report, which you said you were waiting for before you would see them?
A. I honestly can't remember making a decision one way or the other. I just don't know what my thought processes were at that stage.
THE CHAIRMAN: I'm sorry, doctor, but it seems to me the thought processes can't really be that complicated. These are parents who have lost a child who was previously healthy in circumstances which are rather difficult to understand or explain, if I take the

version that's been given to me.
You arrange to meet them in May. That meeting is entirely unsatisfactory because you don't have the hospital notes with you. You're asked by Dr Hanrahan to meet them again, you said you will do that, but will get the post-mortem report first. You get the post-mortem report and then you don't meet Mr and Mrs Crawford. What is complicated about that scenario?
A. There's nothing complicated about it. I should have met with them again and I can't explain why I didn't.
MR WOLFE: You see, what Mrs Crawford explains in her police statement is that the meeting with you in May 2000 was arranged with one week's notice.
A. That's correct.
Q. They asked you for the meeting rather than you seeking them out and arranging a meeting.
A. That's correct, I believe, yes.
Q. And notwithstanding the facility of one week's notice before the meeting took place, you still arrived without the notes, which seems rather surprising in all of the circumstances.
A. I'm not sure that I would have seen it as an omission as the parents did in the sense that I wasn't aware that anything very much would have changed with the notes. But it wasn't a question of making that decision; it was

a question of not being able to find the notes on the day, as I recall. When I went looking for them -- I don't remember when I started looking for them. I may not have responded as quickly as I should have.
Q. But it seems, on the account that they provide, that your answer to their various queries was rebuffed on the basis that you couldn't provide an explanation because you didn't have the notes.
A. I don't think I said I couldn't explain because I didn't have the notes. They may have understood I couldn't, they may have concluded I couldn't understand them because I hadn't the notes, and if I had the notes I would have had answers. I don't actually believe that I would have been able to be any great deal clearer with them if I had had the notes in my hand. I did tell them that I had asked Dr Kelly, as the medical director, to look into the matter at the first meeting, and that was my attempt -- and clearly a very feeble and unsatisfactory attempt -- to say that this is not a matter which I would regard as something that can just be forgotten.
Q. The thing that you could have told them is that there is now a review under way and one of the things that the review might be looking at is the error that has occurred in relation to fluid management.

A. When I was referring it to Dr Kelly, what I was alluding to was the fact that the circumstances were going to be reviewed. I didn't, as far as I remember, refer to Dr Crean's conversation with me, and I should have done so so that they would be aware that this was not just an undirected -- that there was a beginning to it, as it were, and that there was a process, even if I didn't know what that process was.

Q. Do you know or can you recall why you didn't tell the parents about the fluid problem as you then understood it?

A. No, I don't remember. I don't remember making a decision not to tell them. The message that I was trying to impart was that this was a circumstance I did not understand. I had asked Dr Kelly to examine the issue. I don't know if I used the word "review". And I think when the parents subsequently heard that a review had been undertaken, they were very surprised, so my choice of words may also have been very unhelpful to them in that regard.

THE CHAIRMAN: Their surprise was that the review was carried out without their input.

A. Yes, but that was not my doing. I think they were surprised that there had been a review. I don't know that they had realised when I has used the phrase that I

had notified Dr Kelly or I had asked Dr Kelly to look into it that that's what I was alluding to. I can understand why that would be the case that would be my fault for not being clear enough that that was a review.

MR WOLFE: Could I touch upon a number of other discussions briefly that you had with Dr Kelly?

Just for the avoidance of doubt, it was 26 June 2000 that you wrote to Dr Kelly in relation to the post-mortem report. When you received the post-mortem report, you would have observed that hyponatraemia was referred to as part of the background or the history, the clinical history. What did you make of the report in that it didn't reach any definitive conclusions in relation to the death?

A. It left it as an unexplained cerebral oedema of unexplained cause. Hyponatraemia can just be used to mean a sodium outside the normal range. So I didn't think that it -- to quote the phrase we've used before, I don't think that that joined up the dots for me either. I don't think that was explicit in saying this is the sequence of events from the documents, from my recollection of reading it.

Q. Apart from explaining to Dr Kelly that you didn't know quite what to make of the bronchopneumonia and the reference to it, the suggestion that it was of some

duration, did you speak to him about that conclusion?

A. About which conclusion?

Q. The conclusion in relation to the bronchopneumonia or the finding in relation to the bronchopneumonia.

A. I'm sorry, I'm not understanding the question.

Q. You wrote to Dr Kelly in relation to the bronchopneumonia.

A. Yes. That's right.

Q. Did you speak to him about it?

A. Um ... I don't recall speaking to him about it, no.

Q. In September 2001, Dr Kelly recalls that you met with him to discuss the Royal College report that had been conducted by Dr Stewart; do you remember that?

A. I do. I don't remember it in great detail, but I do remember the meeting, having a meeting with him.

Q. Were you provided with a copy of that report?

A. I think I was provided with a copy of a summary report. I don't think I was provided with the documents on which it was based. I think I was provided with the report about that issue, yes.

THE CHAIRMAN: That means you saw the report, but not the attached statements and so on?

A. That's what I'm trying to get at, yes.

THE CHAIRMAN: Okay.

MR WOLFE: Could I have up on the screen, please,

036A-025-056 and, alongside that then, 057? Within her report Dr Stewart is looking at several possible explanations for Lucy's deterioration. At (ii) on the left-hand side she says:

"Lucy had a seizure-like episode due to underlying biochemical abnormality. Initial sodium was 137, potassium 4.1, at 10.30. At 3 am, after administration of Solution No. 18, the repeat sodium was 127, and potassium 2.5."

She has left out of the equation the administration of the normal saline:

"Biochemical changes are often well-tolerated and easily corrected with appropriate fluid replacement, although these results do show a change over a relatively short period of time."

Was that particular conclusion or any of the conclusions set out in this page discussed with you?

A. It depends on how you read that, I suppose. What I would read that to say is biochemical changes are often well-tolerated and easily corrected. The implication that I would have read from that -- and this may not be what she intended -- was that she was not looking at the sodium of 127 as being profoundly important; she was drawing attention to the fact that it could cause a seizure, but on the other hand saying it

could be well-tolerated. So in terms of a child that had deteriorated that catastrophically, that's not what I see her saying.

Q. My question to you was: was that discussed with you? Did you discuss it?

A. I can't remember the discussion in detail. I don't know what points were gone over. No, I don't remember.

Q. In her witness statement to this inquiry, doctor, Dr Stewart has said that in a subsequent conversation with Dr Kelly in relation to this report, she made it plain to him that the change in electrolytes resulted from administration of Solution No. 18. She says that is her recollection, that she conveyed that to Dr Kelly. Have you any recollection of that being conveyed to you at your meeting with Dr Kelly?

A. No.

Q. Could I move you forward a year to September 2002 and at that time, according to Dr Kelly, you met with him to discuss the second Royal College report? If I could have up on the screen, please, 036A-150-312. Under the heading "Poor documentation" -- the other pieces of the document are redacted for issues of relevancy:

"The prescription for the fluid therapy for Lucy Crawford was very poorly documented and it was not at all clear what fluid regime was being requested for

this girl."

That's a criticism of the prescription procedures --

A. And I accept that criticism, yes.

Q. And going into the substance of it:

"With the benefit of hindsight, there seems to be little doubt that this girl died from unrecognised hyponatraemia, although at that time this was not so well-recognised as at present."

Leaving aside the "unrecognised" bit and "with the benefit of hindsight", just on that issue of the conclusion that it was hyponatraemia that was the cause here, was that discussed with you in 2002?

A. I don't remember it being discussed in detail. What strikes me about reading that now -- and I don't know whether it struck me at the time -- is that that talks about hyponatraemia and doesn't refer to the cerebral oedema as being due to the hyponatraemia. So it's not --

Q. Is the link not implicit?

A. The link may be implicit if you know what link you're intending to make, but in a report of that sort I'm not sure implicit links are what's being looked for.

Q. Well, we know that cerebral oedema led to coning and brainstem death.

A. That's correct, yes.

Q. And the implication of this report is that this was triggered by hyponatraemia; is that not fair?

A. I would agree, reading that now, knowing what I do. I can't remember reading it as clearly as that at the time or it being drawn to my attention in those black-and-white terms.

Q. That's the point I wanted to get to. Was this drawn to your attention?

A. I don't recall it being drawn to my attention in black-and-white terms, nor do I remember recognising that in such stark terms.

THE CHAIRMAN: Were you given a copy of this document?

A. I don't remember being given a copy of it. I'm saying I don't remember that being drawn to my attention verbally or by documentation being sent for my review. I may have been given a copy of it, but I don't remember and I haven't been -- I don't have a copy at home is all I can say.

MR WOLFE: We had a discussion this morning about when you saw the Ted Sumner report, the Dr Ted Sumner report.

A. Yes.

Q. It would appear that you were shown that report, doctor, before you composed your letter to Dr Kelly in August 2003.

A. Remind me which that is to Dr Kelly.

MR GREEN: 047-053-148. That's the first page of the letter. If we could pull that up, please. You see on the screen that that is dated 21 August 2003, and it's directed to Dr Kelly. If we go on to the second page, which is 149, at the top it reads:

"You have supplied me recently with a copy of Dr Sumner's report. I would remind you of the article ..."

And then it's signed off "Dr JM O'Donohoe". The point is that this appears to suggest that Dr O'Donohoe must have seen Dr Sumner's report before the inquest.

THE CHAIRMAN: Thank you.

MR WOLFE: You see that, doctor?

A. I do.

Q. And you accept it?

A. I accept it is my letter. I have written that, yes.

Q. And you accept that you must have seen Dr Sumner's report?

A. That is the inevitable logic of what I have written, yes.

Q. Of course. And just to tidy up this for us, I have taken you through a number of reports, the two Royal College reports, and you, if I may say so, demonstrated a vagueness in terms of your memory of whether you saw either of those reports or whether you heard about the

conclusion contained in them in relation to the cause or the potential cause of this child's death; is that a fair synopsis?
A. Yes, I think so, yes.
Q. In the points I have put to you arising out of the Royal College reports, they seem to point the finger at fluid management as being part and parcel of the deterioration in Lucy's condition --
A. The second report particularly.
Q. Yes. And if Dr Stewart is right in her witness statement about what she said to Dr Kelly and if that had been reported to you, can I suggest to you that that might have stood out in your mind or should have stood out in your mind?
A. It should have stood out in my mind. I have to say it doesn't stand out in my mind. I don't recall that sequence of events you have described.
Q. Were you ever shown a report produced by Dr Jenkins that raised a suggestion --
A. I have seen his report, but I can't remember at what stage I saw that report.
Q. When do you think the conclusion was reached by you that fluids were the cause here?
A. I have made reference -- and I think Dr Hanrahan has made reference -- to a discussion I tried to initiate

with him, in -- I think it's December 2004 -- in which I wanted to try to discuss with him the issues of hyponatraemia and cerebral oedema and so on.
Q. Yes. He touched on this in his evidence yesterday, and he said that you were at a study day in December 2004 --
A. That sounds right, yes.
Q. -- some months after the inquest verdict had --
A. That's right, yes.
Q. -- identified dilutional hyponatraemia as the cause.
A. That's right, yes.
Q. And are you saying it was only in that meeting in December 2004 that you reached the view?
A. I was trying to understand what impelled me to talk to him. It was trying to initiate a discussion. I was still trying to understand the 127 sodium and the very profound deterioration. I thought Dr Hanrahan, as a paediatric neurologist, would be able to say to me "127 actually, it turns out, is enough to cause that profound a degree of cerebral oedema", or not, that he might have been able to bring some clarity. So there must have been residual questions in my mind to have even raised that topic with him.
Q. So even though you had seen Dr Sumner in 2003, you had heard the inquest verdict, which pointed the finger very sharply at the fluid mismanagement, there was still

a residual doubt in your mind about the --
A. It wasn't doubt in the sense of trying to argue or say that everybody's wrong except me; what I was trying to do is understand what this meant. For example in terms of a sodium of 127, the next time I saw it, how do I understand it, do I take a sodium of 127 to be a galloping emergency every time I see it or is it something that one can -- how to -- to try and put the whole picture together. I hadn't a chance, as far as I recall, to discuss this with anybody else who might be able to clarify those sorts of --
Q. Of course, the findings of the learned coroner didn't depend upon reaching a conclusion on whether the serum sodium was much lower than 127.
A. I don't remember the conclusions well enough to make any comment on that. I'm not sure that I quite understand the point you're making.
Q. The point I'm making is that you seem to be saying that, in December 2004, based upon your consideration of all the materials that were available to the coroner and researches you might have done yourself, that you reached a view that the fluids could have been much lower or at least somewhat lower than 127 --
A. Yes.
Q. -- and that caused the penny to drop, if you'll forgive

the euphemism, with you?
A. That's right, yes.
Q. And what I'm saying to you is that the report submitted by Dr Sumner, who was the coroner's expert, raised a lower serum sodium as a possibility, but that wasn't the cornerstone of his report.
A. I don't think I said I thought it was the cornerstone of his report. I'm saying that's the impact it had on me; not that that was what Dr Sumner -- I'm sorry. Dr Sumner's analysis I found was very clear and what he had said -- and he just dropped in the suggestion of the lower sodium because there was no lower measurement. But in terms of a very severe cerebral oedema, if it is possible that the sodium was much lower, then it starts to make sense that such a catastrophic deterioration would -- I could understand as against a sodium of 127.
Q. Yes. But the import of the coroner's findings is that even on the basis of a 127, you could still have a cerebral oedema sufficient to cause brainstem death.
A. I don't remember that shape to it, if I can put it like that, and if I had, that may have very well been what precipitated the conversation with Dr Hanrahan. Trying to understand 127 is not a terribly rare sodium, one does see it from time to time. Does that mean every time that happens -- what is the implication of that?

Should that child be taken for an immediate CT scan, and ventilated and mannitol and hypertonic saline administered?

Q. In any event, at this meeting with Dr Hanrahan, you seem to indicate that he was not convinced that the sodium was any lower.

A. I don't think he gave a clear yes or no. That question -- we didn't reach a -- there wasn't a conclusion reached, as far as I recall.

MR WOLFE: Doctor, I have finished my questions. I look round the room to see if --

MR QUINN: There's a matter I want to raise. There was a reference earlier in the day, and I will just find it for the inquiry. It's at page 34 of the [draft] transcript into page 35 at line 22 to line 3 on page 35.

The witness said that he didn't see Dr Sumner's report until after the inquest, but there was a Trust meeting with senior counsel and there was a two-page summary of what the Trust had done in terms of Trust enquiries.

That strikes me as to be an issue directly concerning governance because, according to the witness -- I don't know what this document is -- it relates to the Trust enquiries and he has received the document. So therefore, I would assume that it would be

in general circulation among those who attended that meeting when senior counsel --

A. If I could clarify, I am not sure if I was physically given a copy of it or whether I saw that such a document existed.

THE CHAIRMAN: That's okay. If we go back to today at page 34 [draft]. The witness said:

"My recollection is the Trust held a meeting with senior counsel and invited a number of members of staff who were to attend the inquest to attend and then gave us a copy of, I think, a two-page statement, a two-page summary of what the Trust had done in terms of the Trust's enquiries."

Okay. We'll pick up the point and see if that's in the --

MR QUINN: I'm only putting the point out there. I think it's appropriate at this stage to raise the issue.

THE CHAIRMAN: Can we look at that overnight, Ms Simpson? I'm sure it's in that file that we already had before. If we could look at that overnight.

Is there anything else before I come to Mr Hayton?

MR HAYTON: No questions.

THE CHAIRMAN: Doctor, thank you. That brings an end to your evidence. I have developed a habit of inviting people at the end of their evidence to add anything they

want. I have to say to you, as I do to others, you don't have to. You've explained your position with all your strengths and weaknesses since about 10 o'clock this morning. So if there's nothing you want to add, don't feel obliged to add anything, but if you do want to add anything more, you're free to do so.

A. May I take this opportunity to officially record my apologies to all of those whose lives have been adversely affected by what I have done when I shouldn't have done it or what I haven't done when I should have done.

THE CHAIRMAN: Thank you very much indeed. You are free to step back.

(The witness withdrew)

Ladies and gentlemen, that brings an end to today. Just to give you one piece of information. Tomorrow on the witness schedule we have Dr Hicks, who will be here, Sister Traynor, who will be here, and Dr Malik. Dr Malik won't be here. Dr Malik is living and working in Pakistan. We asked him in December last year to give the inquiry a witness statement and all the parties have the witness statement which was received from him on 2 May.

In between that time, Dr Malik confirmed to the inquiry, by phoning us on 3 January, that he had

received the request for a witness statement. Despite that confirmation and despite further reminders from us, he did not provide any witness statement until 2 May. He was then asked for some follow-up questions in a further statement, which was issued on 8 May, and he was written to again on 20 May, but he has failed to respond to any further contact, whether by phone call at the number that we previously had for him, or by e-mail. I'm afraid in those circumstances he will not be here tomorrow. I cannot compel anyone in Pakistan to respond to calls or e-mails, but I will be taking this further and reporting this to as many governing bodies as I can because, in light of what he has previously said, I regard it at least as hugely unhelpful to this inquiry for him to engage belatedly and in part and then to withdraw his support for the inquiry.

Unless there's anything further, we'll adjourn until tomorrow morning at 10 o'clock. Tomorrow we will deal with the issue about Professor Kirkham and the extent of any further use of Professor Kirkham, and, Mr Quinn, if it's convenient, I will also deal with a couple of issues which have been raised on behalf of Mr and Mrs Roberts about outstanding points and we'll try and tidy that up tomorrow. Thank you very much.

(4.13 pm)

(The hearing adjourned until 10.00 am the following day)

I N D E X