Tuesday, 2 July 2013

(10.00 am)

THE CHAIRMAN: Ms Anyadike-Danes?

MS ANYADIKE-DANES: Good morning. Can I call, please, Dr Caroline Gannon and Professor Sebastian Lucas?

DR CAROLINE GANNON (called)

PROFESSOR SEBASTIAN LUCAS (called)

Questions from MS ANYADIKE-DANES

MS ANYADIKE-DANES: Good morning. Can I first ask both of you, do you have your curricula vitae there?

DR GANNON: Yes.

PROFESSOR LUCAS: Yes.

MS ANYADIKE-DANES: What I'm going to ask you to do is ask you whether you confirm the evidence that you have given, or at least the content of your reports in the case of you, Professor Lucas, and in the case of you, Dr Gannon, the evidence in your witness statement, subject to anything you might say today in the oral hearing.

So if I start with you, Dr Gannon, the evidence that we have from you is a very brief deposition, the reference for that is 047-133-289, which was essentially simply to present the report at the inquest. Then you have made three statements for the inquiry, they bear the series 281: the first is dated 11 October 2012, the

second is 28 December 2012, and the third is 28 May 2013. Do you adopt those as your evidence subject to anything you say today?

DR GANNON: Yes, I do.

Q. Thank you very much.

Professor Lucas, you have provided two reports for the inquiry. The first is dated May 2013 and there is a supplemental report dated June 2013, and they bear the series 252-003-001 and 252-004-001 respectively. Do you adopt those as your reports, subject to anything you say today?

PROFESSOR LUCAS: Yes.

MS ANYADIKE-DANES: Thank you very much indeed. I should just correct an error that I think caused some confusion, certainly for Dr Gannon. That is that the inquiry incorrectly titled Professor Lucas' file "Expert paediatric pathologist". That's a mistake. It should have said what it said in the openings, either "expert histologist" or "expert pathologist". I hope that clarifies that and I apologise for that error.

I'm just going to go through with each of you in turn some brief aspects from your curricula vitae. If I start with you, Dr Gannon. Your curriculum vitae can be found at 315-014-001, and perhaps if we could pull that page up alongside 002. Is it correct that you've

been qualified as a doctor since 1991?

DR GANNON: That's true, yes.

Q. And that you're a fellow of the Royal College of Pathologists and you have been since 2007?

DR GANNON: That's correct.

Q. And you're accredited with the GMC as a specialist histopathologist with a sub-specialisation in paediatric pathology.

DR GANNON: That's true, yes.

Q. And you were a specialist registrar in paediatric pathology at Great Ormond Street Hospital from 1999 to 2000; would that be right?

DR GANNON: It was actually based at the Hammersmith and Queen Charlotte's hospitals and then with a sabbatical period spent at Great Ormond Street as part of that training.

Q. Was that your first training in paediatric pathology?

DR GANNON: It was the first formal training. In Belfast, Royal Victoria Hospital, the trainees in general pathology spent time with the paediatric pathologists during their period of training. So from 1993 to 1998 I would have spent some time attached to the paediatric pathologist, but it was part of the general training.

Q. Thank you. And you've been a consultant since October 2000?

DR GANNON: Yes.

Q. And since July 2003, you've been a consultant paediatric pathologist at the Northern Ireland Regional Paediatric Pathology Service, which is based at the Royal Hospital; is that correct?

DR GANNON: Yes, that's true.

Q. Have you done any work for or with the Coronial Service in Northern Ireland?

DR GANNON: Not as such. We have done work with the coroner, we take part in the coronial cases, some of those have been referred on to the criminal justice division because of the nature of the death. We have a system in Northern Ireland where all infant deaths in the community for unexpected deaths are investigated jointly between the forensic pathologists and the paediatric pathologists.

Q. Is that the change that was brought in in response to the Briggs case?

DR GANNON: Yes, it was.

Q. Just for the record, that Briggs case was a paediatric non-accidental injury case in 2000. There was a working party done on that and that was reported in 2004, roughly.

DR GANNON: Yes.

Q. And that brought about certain changes in the

State Pathologist's department as to how they would deal with all infant deaths; would that be correct?

DR GANNON: That's correct.

Q. Is that what introduced the joint pathologist's approach, which would include a paediatric pathologist?

DR GANNON: That was a new approach. Up until that time, the paediatric pathologists were occasionally involved in investigating sudden infant deaths if they were called in by their forensic pathology colleagues or if the coroner directed them to carry out an autopsy. Dr O'Hara was on the coroner's list of approved pathologists so he was able to carry out coronial autopsies. He was also involved in adult deaths, so he would have carried out adult cases on behalf of the coroner as well.

Q. Just to give a reference for what I have just been putting to you, we see at 315-031-001, that's the working group's report on the Briggs case. Then if we go to the internal page 10 of that, you can see the recommendations at 4.8:

"Joint autopsies should take place between forensic and paediatric pathologists."

And then if you see the action that has been taken because that working party was looking at what action had been taken in the light of that case:

"Formal arrangements are in place and forensic and paediatric pathologists now jointly perform autopsies involving infants and young children."

And this arrangement ensures that appropriate expertise is available to cover all aspects of the case.

There is a further reference to it at page 13, which we don't need to go to, but the State Pathologist's department developed a protocol, is that correct --

DR GANNON: That's correct.

Q. -- dealing with the conduct of infant and children's autopsies? If we go on to 315-031-020. That's part of the protocol and that's there for reference purposes. A little further in, it talks about all infant and child cases, before final pathology cases are submitted to the coroner, that they are all subject to audit as well; is that correct?

DR GANNON: Yes.

Q. Then in terms of the State Pathology Department itself, if we very briefly pull up 306-073-019. This is from the actual report dated June 2005 from the State Pathologist's Department, and one can see here that part of what is being recommended is that there should be two -- you can see it right down at the bottom, 3.9:

"One of the key recommendations following the review

of the Briggs case was the introduction of dual-doctoring for all child autopsies. This has meant that reports are often completed by paediatric pathologists in the Children's Hospital."

DR GANNON: Yes. The way that we work, we have a SUDI protocol that outlines what is expected of each pathologist when we're doing double-doctoring. We take the history from the police jointly, the investigation is initially carried out jointly. The external examination of the body and the internal examination is carried out jointly. Based on the preliminary findings, a lead pathologist is appointed, whether it's forensic or paediatric, depending on the initial findings. And that pathologist then takes it forward to collate all the results and formulate the report, but both pathologists are required to sign the report and both agree on the commentary.

Q. Thank you. This has been happening at least since 2004; is that correct?

DR GANNON: Yes. There is in the SUDI protocol -- an exemption is made if there is disagreement between the pathologists, it outlines what we're supposed to do in those cases. If we cannot agree on the findings, then they each submit their own commentary and explain why they don't agree. That has never happened to my

knowledge as yet.

Q. But the purpose of all this was to ensure that all child deaths are rigorously examined at autopsy?

DR GANNON: Yes. It's made a lot easier. The State Pathology Department is now based on the Royal Victoria Hospital site, their mortuary is adjacent to our mortuary so we have a very close working relationship. Two separate departments, but we work together very closely.

Q. Just while you mention that: is there any difficulty caused in a case where you suspect the child's death might be linked to the treatment at the hospital itself? How do you ensure a degree of independence in those circumstances?

DR GANNON: The forensic pathologists would be available and they would be independent from the hospital. We haven't had occasion where the cause of death has caused problems like that. I have had a couple of cases in the last few years where the death has been linked directly to treatment that the patient has received and we have provided that information to the coroner. That has caused no problems with the Trust, that the information is made freely available to the coroner.

Q. Thank you very much indeed.

Then if I can ask you, Professor Lucas, your CV is

to be found at 306-069-001, and if we can pull up alongside it 002. Then in due course we'll go on to the next page. Professor Lucas, you've been a doctor since 1973; is that correct?

PROFESSOR LUCAS: Yes.

Q. And you have been a senior lecturer in pathology since 1977 and do you continue to lecture in pathology?

PROFESSOR LUCAS: Yes. I have to say this CV is now out of date because I formally have part-retired -- which is not stated here in April -- so I must have submitted this earlier than April last year.

Q. You were formally part-retired in April of which year in?

PROFESSOR LUCAS: 1 April, 2012, before the beginning of the next tax year, for fairly obvious reasons. I had to resign my chair and become emeritus, which I am, and I now work part-time for the same hospital, which I have been based in honorarily, so to speak, so I am still at St Thomas' & Guy's Hospital.

Q. You say you resigned your chair as professor of histopathology?

PROFESSOR LUCAS: Yes, that's right. No successor, sadly.

Q. And you have been a consultant pathologist since 1983?

PROFESSOR LUCAS: 1982, actually.

Q. And since 1995, you were a consultant histopathologist

at Guy's and Tommy's and University College Hospital and The Hospital for Tropical Diseases?

PROFESSOR LUCAS: That's right. I've been at The Hospital for Tropical Diseases actually since 1983. I had been their pathologist for three decades.

Q. Do you also have experience of working with or for the coroner?

PROFESSOR LUCAS: Yes, since 1976 or 1977, I should think.

Q. What does that or did that involve?

PROFESSOR LUCAS: Doing autopsies. These are non-forensic, nothing query homicide. I'm not a forensic pathologist. And doing work that he requested the department to do, which I did, and I then developed special interests and therefore got in a slightly different pattern of work as the years proceeded.

Q. If we can pull up the next page, we can perhaps see this more clearly. If we could pull up 003 alongside, we can see the span of your work. You have also, I think, in 003 at least, we can see that you have provided advice to the Home Office; is that correct?

PROFESSOR LUCAS: Oh yes, lots.

Q. In relation to?

PROFESSOR LUCAS: Home Office and then the Ministry of Justice and then the -- I've forgotten what the -- sorry, it is the Ministry of Justice now. This

concerns governance in coronial work, which is in mainland UK -- it may be different in Ireland -- a perennial sore problem, subject to constant reviews, from which very little happens. But new legislation and new rules and regulations, I'm involved deeply in that, really advising from the pathological governance point of view.

Q. Before I ask you a little more about that, perhaps I can ask you this: in terms of the actual conduct of autopsies prior to your retirement, how many on average would you be doing?

PROFESSOR LUCAS: Until I retired formally in 2012, I was probably doing about 200 to 300 a year.

Q. Would there be any paediatric autopsies involved?

PROFESSOR LUCAS: Oh yes, as required. I know my limits, so I haven't touched anything that relates to the Briggs business -- SUDI, SIDS, possible non-accidental injury -- I haven't looked at that for a long, long time. I have actually done a lot of perinatal work, which in fact I forgot to put in my CV because it was so long ago. In the early eighties in Kenya we did a huge perinatal mortality study in Nairobi and published it to work out why children were dying then. But I rather stopped that perinatal work when I came back so I don't do that. I don't do anything to do with metabolic

inherited conditions or paediatric cancers because they are not my specialty interest. What I'm interested in is infections and general pathology, and so if the cases come under that remit, I'm very happen to take them on.

Q. And even though you have retired, do you do any autopsies now?

PROFESSOR LUCAS: Yes, one or two a week.

Q. Do you also review other pathologists' autopsy reports?

PROFESSOR LUCAS: On a fairly industrial scale. I have been very lucky that -- I suspect I probably look at more autopsy reports by other pathologists -- not in the forensic field, in other fields -- than probably anyone else in the country. Partly because cases get sent to me to be reviewed to see what was going on and partly because I'd been involved in several confidential inquiries, and that brings in vast numbers of cases to see. Those of course are anonymised, but they tend to know where they've come from.

Q. So looking at a pathologist's report in the way that we've asked you to look Dr O'Hara's report, that's something with which you would be very familiar?

PROFESSOR LUCAS: Yes, and the first big publication I did on that was with NCEPOD, National Confidential Enquiry into Patient outcome and Death, when we published a report in 2006, which has been cited in this inquiry

before, called "The coroner's autopsy: do we deserve better?", to which the answer was a resounding "yes".

Q. Is that part of the works, as we can see here, that you've been involved in in the reorganisation of the medico-legal coronial system in relation to autopsy? Does that feed into that?

PROFESSOR LUCAS: That certainly feeds into that and certainly had an impact in the Ministry of Justice. I've resigned from NCEPOD -- I was there 10 years and I contributed to various other reports -- but now the confidential enquiry I'm the lead pathology assessor for is that into maternal mortality in the British Isles because it now includes Ireland as well. So I see all the autopsy reports on maternal autopsies and do a lot myself.

Q. I wonder if I can ask you now an issue that Dr Gannon raised in her third witness statement for the inquiry. The reference for it is 281/3, page 2. She points to the fact that you're not a practising paediatric pathologist and that you haven't held a substantive post as a paediatric or perinatal pathologist. In a way, what she might be suggesting is that this is a case which would have benefited from expertise of that type if you were going to look over Dr O'Hara's work as a pathologist working in the paediatric field and

in relation, of course, to a very young child. Can you offer any comment about that?

PROFESSOR LUCAS: Well, basically it's a fair point, but this is -- I mean, I did highlight the areas or the preserves which I do think are proper paediatric pathology preserves. This, in my opinion, comes into general medicine and general pathology and is not different actually from adults.

Q. Why do you say that?

PROFESSOR LUCAS: Because of the nature of the processes going on. They happen in adults and children; they're not unique to children.

Q. Just so that we unpack that a little bit. Does that mean if you are carrying out an autopsy to investigate potential effects of gastroenteritis, the cause of a cerebral oedema, potential effects of any bronchopneumonia, those sorts of things, are you saying they're not specific to the paediatric field and you don't need to be a paediatric pathologist to look at that?

PROFESSOR LUCAS: I would say that. Or what you need to know is have seen a lot.

Q. Of those sorts of cases?

PROFESSOR LUCAS: And everything else, yes.

Q. Would you say you had in your experience?

PROFESSOR LUCAS: Yes.

Q. Thank you. If I come back to you, Dr Gannon, would you accept that those sorts of issues being investigated at post-mortem in this case don't require the expertise of a paediatric pathologist?

DR GANNON: Yes. What you said originally wasn't what I was actually implying in that statement that Professor Lucas wasn't a recognised paediatric pathologist. It was simply the fact his report had been entitled "Expert paediatric pathologist's report", and that was misleading.

Q. It certainly was. So once that has been clarified, as far as you're concerned there is no issue about a non-paediatric pathologist looking at some of the issues in this case?

DR GANNON: Not entirely. Dr O'Hara was a general practising paediatric pathologist. He would not have regarded himself as an academic or a regional super-specialist in any way. And I think having somebody of Professor Lucas' calibre appraising his report, it should have been somebody similar to Dr O'Hara appraising his report, so somebody who worked in a regional centre providing a regional perinatal autopsy service to see if it met their standards. I have to say, I don't think it was a fair assessment of

Dr O'Hara's work.

Q. Professor Lucas is indicating he might have a comment.

PROFESSOR LUCAS: That's a very interesting line to consider because that's what happens in court cases where one is trying to work out whether someone might have done better or not. It's the Bolam test, it is that sort of thing. Is everyone familiar with what I mean with that metaphor?

Q. Yes.

PROFESSOR LUCAS: Good. This is not about that. This is about something quite different. This is about improving practice and seeing what we can learn. So I think it perfectly fair and reasonable to come in from a different angle and say, "Yes, most people may not have got that right at the time". That's what we're going to be talking about. But actually the facts are there. And to benefit the next generations -- and this is patients and the doctors -- we can learn from these things and that's what I regard my role as: not to put myself as the equivalent of Dr O'Hara, but to say, just looking at the whole thing, what can we do better next time?

Q. We'll come on to it in detail, but just so that we are clear about this, are you suggesting that the observations and comments that you have made in relation

to the work that Dr O'Hara carried out and his report, that it might be reasonable for somebody in his position not to appreciate what you're saying?

PROFESSOR LUCAS: That could be the case. As I said, I look at lots of cases sent to me where there is puzzlement as to what's going on and I'm very happen to say I think I've seen this one before and it's probably this. And if the local pathologist who's sending me the case says, "I didn't know that, it wasn't on my horizon", that is fine, that means he or she has learnt something. That is what everything is about.

Q. I understand. As we go through these points, I'll ask you if you're making an observation which you think is borne out of your greater expertise or knowledge or something that you think somebody in Dr O'Hara's position ought to have appreciated. If we can just be clear on that as we go through. I'm not asking you to say it now, but as we go through, I think that would be very helpful.

PROFESSOR LUCAS: Okay, fine.

Q. Dr Gannon, were you taught by Dr O'Hara?

DR GANNON: I was taught by him as an undergraduate. He was one of the senior lecturers at Queen's University Belfast where I was a medical student. Just as part of my undergraduate cohort he was responsible for teaching

general pathology throughout my second and third years, but he was one of a number of lecturers that we had. When I started as a trainee in the department he would have been one of the consultants responsible for providing my training as a trainee, but it wouldn't have been to any greater degree than any of the other trainees.

Q. But he did provide part of your training and guidance as a senior colleague?

DR GANNON: Yes.

Q. And would you, while you were working there together, have deferred to him typically?

DR GANNON: Yes. As a senior colleague, yes. The practice of pathology in Belfast is carried out as a consultant-led specialty. Any report that a trainee writes is countersigned by a consultant before it leaves the department. All autopsy work is countersigned by a consultant. So any work that I did as a trainee was always supervised by a consultant colleague.

Q. I wonder if we can now move on to how you came into reviewing his work in the first place, which would be your instruction, if I can call it that way, by the coroner. You make an observation in your third witness statement, which I might ask you to explain. The reference for it is 281/3, page 3, you say:

"May I point out that at the time I was asked to present myself to the inquest, the coroner did not see fit to give me any of the background of the case. I was unaware of the reason why the case had been retrospectively turned into a coronial investigation."

It's the substantive paragraph. Then you go on to say:

"The only documentation available to me was the copy of Dr O'Hara's original report and his subsequent commentary for the coroner."

Let's start with the first bit first. Did you ask the coroner why the case had become a coroner's inquest or why it was to be made the subject of an inquest?

DR GANNON: No, I didn't speak to the coroner personally. To the best of my recollection, Dr O'Hara had been gravely unwell for many months, he had had repeated episodes of hospital admissions. He had had some communication, I understand, with the coroner about his attendance at this inquest, but he was unable to go at fairly short notice and, as far as I recall, we received a phone call from one of the coroner's administrative staff asking either myself or my other paediatric pathology colleague, Dr Thornton, to go and stand in Dr O'Hara's stead. There was no indication given to us that this was a case of significance other than it was

now a coronial case.

Q. The report that Dr O'Hara provided for the coroner is dated November 2003, and at that time you were there at the Royal in the department.

DR GANNON: Yes.

Q. Were you aware of him working on that case or that report?

DR GANNON: No, not particularly. We each had our own workload to deal with. There would have been communication day-to-day about various cases, but not that case particularly that I recall.

Q. Are you aware of that case being discussed at all?

DR GANNON: No, no, not at all.

Q. When you were asked to stand, I think essentially in Dr O'Hara's stead and to give the evidence, did you know what that involved, actually what that meant for you to do?

DR GANNON: It wasn't made clear. I assumed it would be to turn up and to be available to answer any questions about the pathological findings. Essentially, the same I would do for one of my own cases: to go and present the commentary, present the clinicopathological findings, the conclusion that Dr O'Hara had reached.

Q. Yes. In your first witness statement, 281/1, page 4, you do -- maybe we should pull it up, it's important --

say what you thought that involved. You thought it:

"... involved reviewing his report and that to review the pathological findings of a post-mortem examination means to systematically examine the written report, evaluate the macroscopic and microscopic descriptions of the organs and tissues and evaluate and critically appraise the conclusions reached by the original pathologists."

You go on to say:

"It involves the examination of tissue sections, photographs, genetic testing and other investigations such as microbiology."

So is that what you thought would be involved in enabling you to go and assist the coroner at the inquest?

DR GANNON: Yes. I wasn't asked to review the report in a critical manner in the way that Professor Lucas was asked to review the report; I was asked to review the report to familiarise myself with the findings.

Q. If you had disagreed with them, presumably you'd have brought that to the coroner's attention?

DR GANNON: Yes.

Q. So as far as you could do it, you were going to look at what you thought Dr O'Hara had looked at; would that be a fair way of putting it?

DR GANNON: Yes.

Q. Did you look at any X-rays?

DR GANNON: No. The X-rays -- we would generally take routine skeletal surveys of any child or infant that comes through the department. Generally, if it's a consented post-mortem and there are X-rays available from the ward, we wouldn't redo the X-rays.

Q. No, but would you look at them?

DR GANNON: They're generally filed very quickly, so I'd have just looked at the written report in the actual PM report rather than take the original X-rays out of file.

Q. Did you look at a report of the X-rays?

DR GANNON: I couldn't find one; it was only what was in Dr O'Hara's original PM report.

Q. We'll come on to it in a minute, but what I'm referring to is at 013-017-059. This is one place where it's referred to. You can see, under "Radiology", Dr O'Hara identifies:

"Post-mortem radiology has been performed and the X-rays are on record in the Department of Pathology."

So he identifies that X-rays were taken at post-mortem and he says where they are. When you read that, did you think that maybe you ought to look at them, particularly if one of the things you're going to look at or consider is his conclusion that there was

evidence of bronchopneumonia?

DR GANNON: The X-rays that we take at post-mortem are what we call a "babygram". It's a different type of X-ray, it's performed in a machine called a Faxitron. We're looking more towards skeletal abnormalities, fractures, skeletal dysplasias. In the field of perinatal pathology that would be much more common, things like skeletal dysplasia. Post-mortem babygrams are not good for looking at soft tissue damage or soft tissue disease processes such as pneumonia.

MS ANYADIKE-DANES: Did you know whether there were any other X-rays?

DR GANNON: I didn't at the time. I am aware now that X-rays had been taken whilst this child was in the Erne Hospital, but I wasn't aware at the time, I don't believe.

Q. Yes. When you were familiarising yourself with, let's call it the histology, did you actually look at the file that might have been kept in the department?

DR GANNON: No, the post-mortem report is kept as an electronic record and that is all that I accessed. I didn't obtain the original file from storage.

Q. Well, did you look to see whether you could get a copy of the child's medical notes and records?

DR GANNON: No, I just looked at Dr O'Hara's report.

Q. But Dr O'Hara might have seen that, or the medical notes and records in any event might have disclosed any communication that there had been between the clinicians and Dr O'Hara.

DR GANNON: It may well have done, but in my opinion I was asked to present Dr O'Hara's report to the coroner and just review his report and bring that to the court.

Q. But if anything recorded there indicated perhaps a different line of investigation than perhaps Dr O'Hara had embarked upon, that might be relevant to bring to the coroner's attention, might it not?

DR GANNON: Had I been given more information from the coroner about the significance of the case, I may well have tried to obtain the medical records. The phone call that we got from the coroner's office was: would one of you mind going to the coroner's court to present this report? I wasn't given any indication of the importance of the case at the time.

Q. Can I put it this way: if you'd had the opportunity to have any communication with the coroner's office and recognised that this case was of some importance, it had not benefited from an inquest earlier, it was now in the circumstances that that arose, would you have taken a slightly different approach to informing yourself?

DR GANNON: Yes, very much so.

Q. And would you have looked for the medical notes and records?
DR GANNON: Most likely. I would have recalled the original case report from store, I would have tried to familiarise myself with more of the information and the details, but at the time I was given no indication from the coroner's office that this was as significant a case as it is turned out to be.
THE CHAIRMAN: I understand that entirely, doctor, but was it not a little odd that you were being brought in in 2003, or thereabouts, to assist with an inquest for a child who had died in 2000 for whom there had been no inquest and no coronial post-mortem? Was that not a fairly unique --
DR GANNON: Not at all --
THE CHAIRMAN: Sorry, that's not unique?
DR GANNON: No, the coroner here has taken on several cases that originally had been a hospital-consented case and then subsequently were turned into coronial cases. It's not unusual.
THE CHAIRMAN: Thank you.
MS ANYADIKE-DANES: Let me ask you this: when you say that you didn't go to the file, but you obtained the report electronically or from a database, I presume, of some sort, what exactly -- I think in your witness statement

you've indicated that you saw the provisional anatomical summary, which is the 17 April 2000 document. You saw the final anatomical summary and report which is June 2000; is that correct?
DR GANNON: Mm-hm.
Q. And you also saw the report that Dr O'Hara had provided to the coroner in November 2003.
DR GANNON: Yes. They're all filed under the same autopsy number.
Q. And given that, as the chairman has just put it to you, this all started off as a hospital post-mortem by consent, and that is how it proceeded in 2000, and then it comes back, Dr O'Hara being asked, for a reason which you wouldn't know, to look at it from the perspective of an inquest in 2003, did you look at what may be the differences between those reports to try and perhaps understand how Dr O'Hara had come to certain views in June 2000 and maybe other views in November 2003?
DR GANNON: He didn't really change his opinion. In my opinion, he maybe expanded in the explanation as to why he had reached the opinion that he had, but his opinion was still that he was not able to say specifically that the cerebral oedema was due wholly to the hyponatraemia, and that opinion didn't change.
Q. We'll come to a closer look at the similarities and

differences between those. What I was asking was a slightly different question. Did you look at it from the point of view of saying: let me see the basis on which he reached certain views in 2000, let me see what he's saying now and see if I can understand the significance of any differences that are actually in either of the reports; did you look at it from that point of view?
DR GANNON: No, I didn't. As I said, I was unaware of the significance of the case and I simply reviewed the histology, checked that I had come to the same sort of diagnosis that Dr O'Hara had and that I possibly would have worded the report slightly different, but that was his wording and I had no major disagreements with it. I didn't review the report in any sort of critical way at all.
Q. As it happened, you weren't asked really to present that report other than to tender it when you got to the inquest. But you didn't know that that was going to happen and you might well have been asked by the coroner or by legal representatives of anybody else there, you might well be asked about the similarities and differences.
DR GANNON: I could well have been. At the time I attended the inquest, I wasn't sworn in. The coroner stated this

had been decided, the cause of death had been decided and that I could be discharged and I wasn't allowed -- well, I was asked basically to leave, that I didn't need to be there for the evidence to be heard.
Q. I appreciate that is what happened and we can see it from the deposition. It was a different question to you: you didn't know that that would happen?
DR GANNON: No.
Q. So would it not have been prudent to have prepared it on the basis so that you could assist if either the coroner had asked you those questions or any of the counsel for interested parties had asked you those questions?
DR GANNON: I wasn't asked to prepare a deposition or statement of any sort; I was asked just to bring Dr O'Hara's reports.
Q. Thank you. When you were told that the cause of death had been established, were you told what that was at the time?
DR GANNON: Yes.
Q. What were you told?
DR GANNON: I think the coroner made a statement that the decision had been made that this child had died of hyponatraemia and it was a very bold statement and then I was discharged or told I could leave and that was -- there really was no discussion whatsoever that I was

party to.
Q. I understand that, but given that you'd just spent some time going over Dr O'Hara's report, some time looking at the histology and forming a view yourself, which, as it happened, was one that was in accordance with the views that Dr O'Hara had formed, did it surprise you that that was a result that the coroner had reached?
DR GANNON: I have to say nothing very much surprises me about the coroner. Coroners have their own ways of working. They have very idiosyncratic ways of working sometimes --
Q. This is a cause of death we're talking about. Did it surprise you that that was a cause of death that was reached?
DR GANNON: I don't recall thinking too much about it at the time. I was unaware of the significance of the case at the time. The background that this was one of a series of cases was not in -- I was unaware of the whole background at the time of the inquest. So therefore it didn't strike me as being anything unusual.
Q. Leave the background aside. You'd looked at Dr O'Hara's reports, you'd looked at the histology, you'd formed your own view as to what you could see and what you thought that meant, and your view was the same as Dr O'Hara's. So that's two pathologists, one very

experienced pathologist, and you a paediatric pathologist, formed that view. You come now to the inquest and you're told that the coroner has formed the view that, in fact, the cause of death is hyponatraemia or at least hyponatraemia is implicated in it. And all I'm asking you is, given that you had just been working on that case to yourself form a view of the cause of death, did that surprise you?
DR GANNON: I don't recall being surprised. I don't recall my emotions at the time, I have to say.
Q. Well, now that you have seen it in the context of the work that you have done, can you understand it?
DR GANNON: I do think there should have been discussion as to the pathological findings at the time of the inquest. I think that the bronchopneumonia has been ignored. I am in agreement with Dr O'Hara's report that this was a significant bronchopneumonia. It was not ventilatory-associated bronchopneumonia; it was community acquired and significant. That was never discussed. Dr O'Hara had it in his report and it was ignored.
Q. And you remain of that view?
DR GANNON: Yes. As far as I recall, that was my main concern that this had never been discussed.
Q. Yes. As I was clarifying with you, you remain of the

view that bronchopneumonia -- effectively, what you are saying is that should feature in Lucy's death certificate?
DR GANNON: I think it has a larger part to play than appears to be the general opinion. I have seen the histology and this child had extensive bilateral bronchopneumonia.
Q. We're going to come to that, but just so that we're clear about what you're saying, the implication of what you're saying is that you consider that bronchopneumonia should feature in Lucy's death certificate?
DR GANNON: It could potentially go under part 2 as a significant disease present at the time of death. I'm not entirely sure that I would put it down as the cause of death. I don't think it is that significant, but it should certainly be at least under part 2.
Q. Thank you. Then just if we quickly deal with some preliminary matters before we get into Dr O'Hara's conduct of the post-mortem itself.
In your witness statement at 281/1, page 5, you talk about discussions that you had with others prior to finalising your work in looking at the histology and Dr O'Hara's report, one of whom is Dr Claire Preshaw; is that right?
DR GANNON: Claire Preshaw is the paediatric office manager;

Claire Thornton is my paediatric --
Q. Dr Claire Thornton, I beg your pardon. Dr Claire Thornton was a colleague that you held discussions -- I think you say you don't recall the detail of them, but nonetheless you did have discussions.
DR GANNON: As far as I recall -- I mean, we received a phone call saying, "Would one of you go to court?", and there would have been discussion about which one of us should go. I don't recall any in-depth discussion about the particular case.
Q. So that we're clear, does this mean that you believe the discussions may be more of the nature of arrangements in terms of who's likely to be most free to go as opposed to a discussion of the elements of the case?
DR GANNON: Yes.
Q. Thank you. You also, I think, say that there was a trainee at the time, Dr Kieran O'Neill, and he was attached for a very short period of time to the service, and you think you had some discussions with him?
DR GANNON: It would have been very basic discussions. Dr O'Neill was a very junior trainee at the time. He's now a consultant general pathologist at Antrim Area Hospital. He had not been to an inquest before this so I suggested he came along to the inquest to familiarise

himself with the process.
Q. So that's really part of his training, those sorts of discussions?
DR GANNON: Yes.
Q. So does it amount to the fact that you didn't really discuss with anybody the actual elements of this case?
DR GANNON: No.
Q. Thank you. If we can then go on to a brief matter in relation to Dr Curtis' involvement. Dr Curtis was an assistant in the State Pathology Department.
DR GANNON: I'm aware of Dr Curtis. I think he had left the State Pathology Department before I started in Belfast or maybe we overlapped, but at the time I have done double-doctored cases with most of the forensic pathologists, but not with Dr Curtis. So I have never actually worked with him.
Q. I'm going to have pulled up a part of his evidence that he gave to the inquiry. It's the transcript for 25 June 2013, page 9, and I believe it starts at line 17. I had been asking, as you can probably see from the lead into that, Dr Curtis about his response to being told -- we don't actually know what the substance of the communication was between the coroner's office and Dr Curtis; all we do know is that three things were recorded in the main register of deaths. One is

"gastroenteritis", the other is "dehydration" and the third is "brain swelling". And it's to be assumed that if there was going to be any communication between the coroner's office and Dr Curtis seeking some assistance, at least those three things might have been mentioned. We don't know.

But I asked Dr Curtis, if they had been mentioned to him, would he have considered there to be anything or would he have been surprised about it and the reason I asked him that is that others have expressed the view that that is a bit of an illogical series. His answer to that is, as you see it, that he wouldn't have been surprised because cerebral oedema can occur due to a variety of mechanisms, and then he goes on to say that:

"In severe dehydration, the amount of circulating blood volume can be reduced so there is not enough blood flow to the brain and, in response to those insults, the brain can swell."

Then he goes on:

"Another way in which dehydration might be connected with cerebral oedema is that the brain can sludge and clot in the cerebral veins and the veins inside the skull, bringing about cerebral oedema."

So the upshot of it is that there are some ways in

which you could have a quite legitimate connection between dehydration and cerebral oedema; would you accept that?
DR GANNON: Yes. I think that's reasonable. I personally have only ever seen cerebral venous thrombosis in association with extreme prematurity in infants, but I can understand his reasoning, yes. Cerebral oedema can come about by quite a number of mechanisms and disease processes.
Q. If that had been presented to you, just those three things, and you're dealing with somebody who's not medically trained, before you expressed a view about that, would you want to know anything more about the circumstances?
DR GANNON: I'm not quite sure what you're getting at there. Could you expand on that?
Q. The question is this: if you have someone who's not medically trained from the coroner's office, which was the case, and they're seeking your assistance, they have got a clinician who has reported the death on the line, effectively, and they're wanting a steer as to whether this might be something that could be entirely natural, and you're given that trilogy of gastroenteritis, dehydration and brain swelling, would you want to know anything more about the circumstances before you were

prepared to express a view about anything in relation to the case?
DR GANNON: It's very difficult to give an answer to that on the grounds that we now have a very good system in the coroner's office which should have been implemented a long time ago actually, but it's very difficult, I find, that -- it's hard to get across complex medical information to non-medical people if they're the ones making the decision whether to carry out an autopsy or not. I can understand why the coroner uses the services of the Forensic Pathologist's Department to assist him in making those decisions. Personally, as a physician, as a medically-trained person, I would have wanted to know more information about the treatment the patient received, about the rehydration therapy, but as a layperson, they would not necessarily have known to make those enquiries.
Q. Might you have offered to speak to the clinician directly?
DR GANNON: I think that is always required in a case like this where it's extremely complex and there are concerns about the mechanism of death and the cause of death. We now have a system where we have a medical officer permanently with the coroner's office, which has hugely improved the service we can provide. I think at the

time though my impression is that the clinician was reporting the case to the coroner and was under the impression that he had reported the case and then it seems to be that he thought that the coroner had refused the case when in fact Dr Curtis --

Q. Sorry, that's a different issue. I'm not really asking you about that.

DR GANNON: There is a communication difficulty here in that you're trying to get across extremely complex mechanisms to a layperson and to try and emphasise how complex these possible mechanisms actually are.

Q. I understand that. I wonder if I can put the same point to Professor Lucas. If we deal with the first point, the observation Dr Curtis made which is that he didn't see anything particularly illogical about being given that trilogy of gastroenteritis, dehydration and cerebral oedema because you can move from dehydration to cerebral oedema in the two ways at least that he suggests. Could you express a view about that?

PROFESSOR LUCAS: Well, he's right, but it's not what happened in this case --

Q. So you can --

PROFESSOR LUCAS: -- from the clinical physiological observations at the time leading up to death.

Q. If you were going to form a view that you weren't

surprised about that juxtaposition of dehydration and cerebral oedema, would you want to know any more to know whether you're in the category of either of the ones that Dr Curtis has said?

PROFESSOR LUCAS: The answer is yes. You'd want to know more.

Q. And leaving aside wanting to know whether you were in that category or not, and if I put it to you in the same way as I put it to Dr Gannon, if you've got a layperson seeking some guidance, assuming that you're told gastroenteritis, dehydration and cerebral oedema, would you want to know any more before you assisted by providing any view about it?

PROFESSOR LUCAS: Well, yes. I have just said you'd want to know more, but just from my personal experience I get rung up by coroners from time to time saying, "I've got a funny case note, can I go through it with you?" It may start with a conversation with the coroner's officer, but in the end the proper conversation goes through the coroner who makes the decision.

Q. Yes. I'm actually just at the point of the sort of information that you would want to receive before you expressed a view, and if I have it from both of you, I think you would both want to receive more information.

PROFESSOR LUCAS: Correct, yes. We are unanimous on this.

Q. As you know, the medical cause of death certificate in fact just retained those three items, gastroenteritis, dehydration and cerebral oedema. If you were recording that and you thought there was a step between those that made those explicable, if I can put it that way, if I just give you the reference for that, it's 013-008-022. You see it there. I'm not going to ask you at this stage what alternative you might have put there, but just dealing with this point: if you thought there was a natural step or at least a natural connection between the dehydration and cerebral oedema, is that something that you would expect to see recorded on the medical certificate of cause of death to make transparent the mechanism of death?

PROFESSOR LUCAS: Not necessarily. You don't put everything down in a death certificate.

Q. Well, is it acceptable simply to put gastroenteritis, dehydration and cerebral oedema from your point of view, Professor Lucas?

PROFESSOR LUCAS: Had it been a scenario that Dr Curtis was suggesting, these are possibles, then in a sense that will be a short form of that, but the point is it wasn't. So when one's drawing up death certificates, which are used for coding and national statistics purposes -- that's what they're for -- you go through

the process of working out: is this the correct flow, is there anything in between, is there anything that should be there that should be considered? But if in the end it does boil down to something like that, then that's what it is.

Q. So if it had been either of the things that Dr Curtis has suggested it might be as being a natural and logical step between dehydration and cerebral oedema, you, Professor Lucas, wouldn't have felt it necessary to expand on that?

PROFESSOR LUCAS: If I was involved and I'd been satisfied that what actually happened in this case was extreme dehydration leading to, in a sense, dural venous sinus thrombosis causing cerebral oedema, these things happen.

Q. Yes, I appreciate that. I'm trying to get at how you would record that on a medical certificate of cause of death.

PROFESSOR LUCAS: I think there needs to be a little bit of pathophysiology between the dehydration and the cerebral oedema, you're right. But just to make the academic point about national statistics, these things go to the ONS, who throw the words up in the air and choose the words they are going to pull out for tabulating why have half a million people across the UK died this year and the bottom line here is gastroenteritis and that's all

they'd look at. They would ignore the other ones. That's one of the reasons you write death certificates.

Q. Can we just stick with what the clinician should record if the clinician is of the view that either of the mechanisms that Dr Curtis has described -- from your point of view what do you say about how this gets completed? Because I thought for a moment there you said that there needed to be some extra pathology in there.

PROFESSOR LUCAS: There needs to be consideration of the join-ups between those words --

Q. That is exactly what I am asking you. What is that?

PROFESSOR LUCAS: -- which the clinicians would have known was not the Curtis scenario.

Q. Yes, but assuming it was the Curtis scenario, what are you saying ought to go between dehydration and cerebral oedema?

PROFESSOR LUCAS: Something like venous sinus thrombosis.

Q. Thank you. If I ask you, Dr Gannon, if it were either of those two routes that Dr Curtis had referred to, are you saying that there ought to be anything between cerebral oedema and dehydration?

DR GANNON: Possibly, but it's a purely hypothetical situation. We know that a significant percentage of medical certificates of cause of death are incomplete or

downright inaccurate. They are completed by the clinician to the best of their knowledge and ability. They do not have to be 100 per cent accurate. That is the bare bones of the case and that is all that's required on a medical certificate of cause of death, the bare bones. You cannot put down every single step of the process on a death certificate. It would be more accurate to have stated "Severe dehydration causing venous sinus thrombosis leading to cerebral oedema". There aren't the steps on that form to be able to do that. I possibly would have put "Gastroenteritis due to ..." and then whatever the organism was responsible, as that would be more accurate coding. But as it stands, that, I accept, would be an acceptable medical certificate of the cause of death.

Q. At the moment, I'm only dealing with the formulation that Dr Curtis was suggesting. We're going to come on later on to deal with it in the context of hyponatraemia and, as Professor Lucas says, what he thinks actually caused it. But in terms of Dr Curtis, just so that we have it, I think the two of you have said it could have been improved by something in between, but you, Dr Gannon --

DR GANNON: But it is perfectly acceptable.

Q. It is acceptable the way it is. Thank you very much.

PROFESSOR LUCAS: Could I just make one point, if I'm allowed to? By the time this was written, which is, as you say, three weeks after the death, the cause of the gastroenteritis was known. It must have come back as a result. So you might wonder why rotavirus wasn't put in, "Gastroenteritis due to rotavirus".

Q. Yes. Would that have been more accurate, the two of you, to have included that if you had known that that was the cause of the gastroenteritis?

DR GANNON: If you had known that. The funding of the Health Service is based on what people are dying of. If you know what the population is dying of, you put the money into those services to improve the healthcare. If you haven't put down the cause of the gastroenteritis, that reduces the amount of available information to the Office of National Statistics and various health organisations. But as I said, that would be an acceptable cause of death if there hadn't been a post-mortem and if there hadn't been more information discovered.

Q. But given that there was, then something else would have been appropriate?

DR GANNON: Yes, but based on the information that Dr Curtis appears to have been given I think that's acceptable.

Q. Thank you very much. If we then go on to Dr O'Hara's actual conduct of the post-mortem. When we were dealing with a previous case that the inquiry is investigating, the case of Claire, who died in October 1996, she was also the subject of a hospital post-mortem. On that case it was brain-only. I don't know if you've heard of the case, Dr Gannon?

DR GANNON: I'm aware of the case, I'm not aware of the details.

Q. In the course of that the inquiry was informed that there are a number of guidelines that operate in this area, providing protocols and guidelines. One of them is a 1991 joint working party "Autopsy and audit". The reference to it is 236-007-064. What we were told about that is it includes a reference to:

"Where cases are difficult or complex, it is wise for the requesting consultant to discuss the problem with the pathologist prior to the autopsy and not merely rely on a written request."

That's a request for autopsy. Would you accept that?

DR GANNON: Yes.

PROFESSOR LUCAS: Agreed.

Q. And also that report goes on at 236-007-065:

"Close liaison between physicians, surgeons, if

appropriate, and pathologists is to be encouraged."
DR GANNON: Very much so, yes.
Q. In terms of Lucy's death, would you have said that Lucy's death, as you're aware of it, came into that category of difficult or complex where it really would have been helpful for the requesting consultant and the pathologist to have had a discussion even before the pathologists got started?
DR GANNON: I think in an ideal world, yes, you would want to discuss all your cases with the clinician at the time before you start the post-mortem. In an ideal world. Preferably a clinician should be present either at the post-mortem itself or immediately after the post-mortem to review the findings, the initial naked eye findings. It doesn't always happen.
Q. Yes, I think we know that now. What I was really putting to you is this joint working party starts off on where cases are difficult or complex, and what I was asking you to express a view on is whether you thought Lucy's case fell into that category.
DR GANNON: I obviously can't speak for Dr O'Hara. He may not have considered it.
Q. For you.
DR GANNON: I cannot speak for Dr O'Hara in that he may not have considered this difficult or complex. Personally,

in a case of a child dying in an intensive care unit, I would want to speak to the clinician before I started. That is my personal working practice, but I can't speak for Dr O'Hara.
THE CHAIRMAN: I think the guidance that you were referred to a few moments ago is the other way round. It is where the referring consultant thinks it is difficult or complex and, in this case, Dr Hanrahan said he didn't know why Lucy died. So in his eyes, Lucy's case was difficult or complex because if you don't know why a child died, then is that not the very scenario where the referring consultant should speak to the pathologist?
DR GANNON: That's true, but it depends on the clinician. If the clinician emphasises to the pathologist that they consider this to be a difficult case -- I'm not party to any discussions that Dr O'Hara had with the clinicians.
THE CHAIRMAN: No, but I think the lead for this -- and this is one of your general themes, I think -- that you don't think that Dr O'Hara should have taken the lead in this, but you think the lead should have been taken from the treating clinicians.
DR GANNON: Very much so.
THE CHAIRMAN: Whoever took the lead, there should have been discussions between them, and what appears, on the

evidence, to be missing is at least any record of discussions between them?
DR GANNON: Yes, I would agree with that. We are dependent on the clinicians to provide us with the clinical history, to provide us with the relevant clinical information and to point us in the direction of the way they think the investigation should be going. There is a section on the request form to ask for any specific questions that need to be answered, and that is the way by which the clinician can say, "I am worried about this, please investigate this in more detail". I'm not aware those discussions took place.
THE CHAIRMAN: Tell me if I am wrong, doctor, but I understand you to be making two points. One is in defence of Dr O'Hara and one is in defence of pathologists generally, that it is for the treating clinicians to take the lead on these discussions if they have concerns. On the other hand, if the pathologist then has concerns which he or she thinks may have been missed, then the onus switches and the pathologists might then take the lead with the clinicians; is that fair?
DR GANNON: The first half of your statement I would agree entirely with. My personal belief is, as a pathologist, I am just one part of the investigation into the death

of a patient, that the clinician is the person who should be in overall charge of the case who is best placed to put together all the facts of the investigation and to discuss -- so the pathologist, yes, should be part of that, but it's not for me to start hounding away at an investigation. It's up for the clinician to do that. I certainly will raise anything that I find that was unexpected, I will raise that, bring that to the attention of the clinician, but I don't think that my primary role is to be the lead in these cases. My primary role is to assist and advise the clinician in his investigations.
THE CHAIRMAN: Professor, are you on the same track as Dr Gannon?
PROFESSOR LUCAS: Not quite. I agree with virtually everything Caroline Gannon says, the business about having information upfront, knowing what the doctors are wanting to find and exclude from an autopsy before one actually does it. As an aside, it's not always absolutely necessary to read all the notes, all the records of everything before you inspect the body and put a knife to it. What you need to do is work out why you're there, which issues are to be addressed, because it was done in this case, if one does a protocol-driven autopsy where you actually do everything and sample

everything, detailed questions can be resolved afterwards as they come up. In other words, you don't have to comprehend the entire case before you start the autopsy. You need to get going.

That's one thing on the process. I do disagree a little bit in a sense about who runs it at the end. If you're dealing with a consented autopsy, the family has been asked to put themselves out, the clinicians are putting themselves out -- I mean consented autopsies cost money, they create noise in the general sense -- so you might expect the clinicians being the one people leading this to demand it. My personal experience, of course, is mostly with coronial work, although I did quite a lot of consented ones. There -- and this is probably where my attitude comes from -- I do actually think the pathologist, in the end, takes the lead to sort the problems out because he's the person the coroner is looking to to sort it out clinicopathologically, and that attitude then probably spills into my other practice as well, so I do tend to be a bit more proactive.

MS ANYADIKE-DANES: And in a way you might say that the clinician is looking to the pathologist to help him sort it out because, if it's a hospital autopsy, he hasn't been able to sort something out, which is why he's

coming to you in the first place?

PROFESSOR LUCAS: That's one reason for doing consented autopsies. It's not the only one. There may be details in other cases which are not totally germane to the main thrust of death, so to speak, which they want to know about. That's fine. But when it turns out it's all very puzzling and complicated and it all doesn't quite add up, to use a rather loose holding statement, then conversations happen, discussions happen, by all sorts of means and my feeling at the moment is the pathologist leads this because he probably has the best perspective on it at the time.

Q. Can I ask you this question just to make sure that we have the same question put to you as I asked Dr Gannon: did you regard Lucy's case as a complex or difficult one from the point of view of these pre-start discussions?

PROFESSOR LUCAS: The words "complex" and "difficult" are interesting because actually, when the poor child died, it wasn't necessarily any of those things at all. It's the wrong word. The word is "unusual". Children with rotavirus and gastroenteritis don't normally die within two days of arriving in hospital. That's unusual. That doesn't necessarily make it complicated or difficult because on doing the autopsy, one might, for example, hypothetically find there's a massive pulmonary

embolism, or something like that, which explains everything in one go and it ceases to be a difficult case. The reason why this becomes difficult is, having started with an unusual scenario, you are then left with features that apparently, at the time, do not add up. That makes it complicated and difficult, yes.

Q. If the premise is this is a bit unusual, in the UK we don't have many young children die of gastroenteritis, and maybe not that quickly either. Essentially, she's a well child, she comes in not terribly well at 7.30 on the 12th, and by 3 o'clock on the 13th the following morning, really, 3 am, she is moribund and she never recovers from that position. So one might regard that as being particularly speedy. It was certainly something that troubled Dr Hanrahan as to how quick that was. So if you're faced with that, are those the circumstances that make it an appropriate case to have that sort of pre-start discussion?

PROFESSOR LUCAS: Yes, you know the issues. But just to reinforce the point I made: a case becomes difficult or complicated, in a sense, after the autopsy has commenced and you realise that actually it's not going to be an easy answer, it's not going to be evident within the next few minutes or even a day. In other words, the gross autopsy, as here, didn't actually solve the issues

raised, it didn't solve the problem. At that point in your mind, you now realise this is difficult and complicated and you move on to a different strategy.

Q. Yes. Let me put this to you. This is the 1993 Royal College of Pathologists guidelines for post-mortem reports. It's one I think that was referred to in the context of Claire's case. The reference for it is 236-007-054, and what it says at paragraph 2(a) -- I'm sorry, I thought that was the reference, but any way -- paragraph 2(a):

"It is the pathologist's responsibility to be satisfied that a full account has been obtained."

And that was going to make him sure that you start off with all the information that you need in order to progress the post-mortem. The question that I want to put to you, Professor Lucas, because you really started on that line, and then move to you, Dr Gannon, is: if that's so, the pathologists have to make sure they've got a sufficiently full account, is there not some onus on the pathologists to ensure they actually know -- this is on a consented autopsy I'm talking about -- they know what the clinician's concerned about, what he's seeking assistance with, so that you can best help?

PROFESSOR LUCAS: Yes.

Q. And sometimes, Professor Lucas, does that not require

some discussion with the clinician to make sure you've got that absolutely right?

PROFESSOR LUCAS: Yes. But it can be a written discussion. It could be that on the request form for the consent autopsies all these questions are listed and bullet-pointed, otherwise it's a telephone conversation or a meeting.

Q. Would you --

PROFESSOR LUCAS: One doesn't start a consented autopsy blind as to what the questions are; one has a steer as to what they want.

Q. Would you accept that, Dr Gannon?

DR GANNON: Yes, yes. The more information the better when you're starting a post-mortem.

Q. It's not so much that; it's making sure that you have understood what the concerns are or the difficulties are of the clinician so that, when you conduct your post-mortem, you can ensure that you have addressed those or, if there's anything that he hasn't seen that helps him with this problem, you've highlighted that. That's really the target of my question.

DR GANNON: Yes. It does help if the clinician has highlighted their concerns to you, whether that's in written form, as a clinical request form, or as a phone call or a meeting. The way that I think Dr O'Hara has

carried out the post-mortem has been to a protocol with sampling from each organ, with necessary virology and bacteriology testing, so even if he wasn't aware of the thrust of the main concern of the clinicians, he has taken the appropriate samples to address any of those concerns down the line. So he has carried out a full autopsy examination with the necessary specimens being taken.

Q. I'll come to the autopsy request form in a moment, but just so that we have these guidelines, now that you say he's carried out a protocol autopsy, would you also -- which is in paragraph 7(b) of those same guidelines -- with this, that one of the tasks is to reconcile, as far as possible, the major clinical problems with the pathological findings?

DR GANNON: Yes, absolutely.

Q. Both of you would agree with that?

PROFESSOR LUCAS: Of course. That's why we're here.

Q. The practice guidelines are from "Necropsy: Time for Action", that's 1996, and the reference for that is 236-007-077. It says there under "Necropsy examination":

"Patient notes and consent forms should be studied carefully, particularly in relation to clinical problems and possible limitations placed on the examination by

relatives."

That wasn't an issue here, but the fact that it's being highlighted that patient notes should be studied carefully particularly in relation to clinical problems, would you both accept that?

PROFESSOR LUCAS: Yes.

DR GANNON: Yes, if they're made available to you before you start the autopsy.

Q. Yes. Then if I pull up the autopsy request form, if we pull up please page 061-022-073 and put alongside it 075. What's in the middle is a note relating to transplant, which I don't think is relevant for these purposes. There we are. So this is the autopsy request form that Dr O'Hara had. So in terms of alerting him to what the clinical issues were, what the concerns of the clinicians were, this is what he's got, absent any discussion.

So you have the clinical presentation there and then you have the history of the present illness. Then you have the past medical history, then you have the investigations and you can see that the serum sodium levels fell from 136 to 126, according to this, when she was in the Erne Hospital. You see what the result of the CT scan is and the EEG, and then you've got the clinical diagnosis:

"Dehydration and hyponatraemia, cerebral oedema [it looks] like leading to [the arrow pointing towards] acute coning and brainstem death."

Over the next page, the list of clinical problems:

"Vomiting and diarrhoea, dehydration, hyponatraemia, seizure and unresponsiveness leading to brainstem death."

So now, if you're faced with that, Professor Lucas, if I ask you first, what is the investigation that you're going to be targeting at post-mortem?

PROFESSOR LUCAS: This is a superbly complete summary. In fact, the whole hearing could be held over those two pages. It's all there, isn't it?

Q. Then help us with that.

PROFESSOR LUCAS: So that gives the pathologist -- it tells him or her what to do, to do it well, which is you do a complete autopsy. I mean, there's no criticism about the procedure of the autopsy in this case. I said that in my report and I just reiterate it again. You do a complete autopsy, take all the appropriate samples, and then you think about it. At the moment you see this you don't have to, at the time of opening the child and then closing up, have made up your mind as to what happened. That's not required. You need to, when you leave the mortuary, make sure you have all the information, all

the samples necessary to address all the questions there are and maybe any others that weren't on those pages, but those pages are quite enough.

Q. What are the questions and what is it that you say this invites you to think about?

PROFESSOR LUCAS: The fact that you have, in no particular order, hyponatraemia -- and it couldn't be more clearly stated, it's not hinted at, it's stated there in words and in numbers -- you have cerebral oedema, you have coning as the mode of death and brainstem death, you have vomiting, diarrhoea, dehydration. All these things make you think about why this has happened, what are the possible things. You may not know what the connection is, you may not have heard at the time of doing this autopsy of hyponatraemia and cerebral oedema. That's not necessary. You've done the observations, you've written the things down that are required, you've got all the samples you need. It can then be sorted out.

Q. Does the sorting mean trying to figure out what the relationship is or how those particular clinical problems arose and what the relationship is between them? Is that what the thinking is?

PROFESSOR LUCAS: Yes.

Q. Dr Gannon, can you comment on that?

DR GANNON: I would agree entirely with Professor Lucas, that is a very detailed clinical summary. You wouldn't necessarily have needed to know the sodium levels day by day during the child's admission because it's there for you on the paperwork.

Q. So does that not mean that, as one of the number of things that you might be thinking about, you're going to think about that fall in serum sodium level to something that's hyponatraemic, you're going to think about the fact that the clinical diagnosis included hyponatraemia and that one of the problems identified is hyponatraemia and think about how all that features in the ultimate death, which, in this, is caused by coning from cerebral oedema?

DR GANNON: Yes.

PROFESSOR LUCAS: Over a period of time. This is not urgent in the sense "I must have the answer by tomorrow", or anything like that.

Q. What you're saying is you have time to think?

PROFESSOR LUCAS: Yes, and you have time to go back to the lab records in full day by day and look at all the haemoglobins, the white counts and so on. The point I'm making -- and Dr Gannon is agreeing -- is that you don't need all that information upfront when you start an autopsy with this sort of information in front of you;

you're given absolutely everything you need.

Q. And in the course of that thinking process, is that something that you think would be assisted by a discussion with the clinicians?

PROFESSOR LUCAS: Yes. In general.

Q. Why would you say that?

PROFESSOR LUCAS: Because no pathologist knows everything.

Q. Leaving aside that as a statement of the obvious because nobody will claim to know everything, but why would you be looking at wanting to talk to the clinicians?

THE CHAIRMAN: Your point is that, since you have some of the knowledge and they have other parts of the knowledge, you put the two together?

PROFESSOR LUCAS: Yes, it's all complementary. Just as a personal observation, the first time I became aware of hyponatraemia causing death by this means wasn't in a child, it was an adult; I had not come across this before, so I thought about it, I asked and I realised that's what it was. I can't remember exactly how many feeds in came, but there was a certain amount of consultation going on.

MS ANYADIKE-DANES: So if the clinicians have identified it and it's not something with which you're particularly familiar, clearly the clinicians have identified it as part of the problem, they have it as part of their

diagnosis, would you say that suggests that you should be talking to the clinicians?

PROFESSOR LUCAS: It would, and also looking it up, see what the books say.

Q. And Dr Gannon?

DR GANNON: Yes, I would agree. It's not a condition that I have had autopsy experience of in the last 10 years. It's not a very familiar condition. As Professor Lucas said, carrying out the autopsy, you don't need the in-depth detail on the clinical findings, but you do need guidance from the clinician as to the main clinical questions to be answered by the post-mortem. When you come to formulate your final report, you would hope that your commentary will comment on those questions and answer the questions.

Q. So there might be two stages, I think from what you're both saying, about discussing further with the clinician? One might be to make sure that you understand what you're starting off to do and, depending on the case, you may not require that at all. You may have enough to be able to go in and do the physical part of your work, which is the actual autopsy, and to collect the material from which the slides are going to be made. That's one stage. When you get to the thinking stage, which is now I've got all that material

and I've looked and I can see what it shows, and I'm trying now to see how I can assist in answering some of these questions, that might be a stage where you would benefit from the observations or comments of the clinicians as to how the child presented in life?

PROFESSOR LUCAS: Yes.

DR GANNON: Yes.

Q. Or the details of the treatment that they provided and what the response to that treatment was? Would that be a fair way of categorising it?

DR GANNON: Yes. In our current practice, we would provide a final report with a clinical commentary. If the case is then discussed at a mortality meeting or there's any further discussions and there's anything additional added, we provide a supplementary report to bring in that further information received.

Q. Yes. So Dr Gannon, there may be a time when you want to have a discussion before even you provide your final commentary? Alternatively, you might go as far as you can on the autopsy, but recognising this is something which is going to benefit particularly from a clinicopathological correlation and so you'll be wanting to discuss that further at an audit meeting or mortality meeting?

DR GANNON: We do that frequently. A large part of my

practice is looking at perinatal cases, foetal abnormalities, so we have the scan result from the clinician, then I do the post-mortem on the baby, and it is only after discussion with my genetics colleagues that we may reach a final diagnosis many, many months down the line after we have done further investigations. So an interim report goes out first and then we'll provide a supplementary final report when all the other information comes in. So it's not uncommon to have a staged report being sent out like this.

Q. When you're in the sort of information-gathering mode, if I can put it that way, if you had appreciated that there were X-rays taken of the child in life, say one at the treating hospital, as was the case here, there was an X-ray taken when she was in intensive care at the Erne, and another the actual day of her death in PICU, if you had known that and you're looking at your histology and thinking about bronchopneumonia, would you have wanted to look at those X-rays?

DR GANNON: Not personally because I'm not a radiologist. I might have wanted to see a report, but frankly the pathologist has the lungs in front of him and he's dissecting them and he is looking at the lung tissue under the microscope and that's the definitive diagnosis, it's not the X-ray report, it's not the

radiologist's opinion; the pathology of what's under the microscope is the definitive diagnosis.

Q. But if you're trying to see how speedily was the onset of that, if you have a radiologist's report, that gives you certain information as to how the lungs appeared at X-rays earlier; might that be helpful?

DR GANNON: No, it's irrelevant. There's a known lag between the radiological appearance of disease processes and the disease processes actually being there, and particularly if you've got low-quality X-rays, as you get in a portable X-ray, they're not always that helpful.

Q. Professor Lucas, if you had appreciated that there were earlier X-rays of the child's lungs, even if you didn't want to look at them yourself personally, would you have wanted to see a radiologist's report on them?

PROFESSOR LUCAS: Yes, and increasingly of course we do look at them ourselves because they're all available electronically online. But this wasn't the case here; this would have been classed -- wouldn't it?

DR GANNON: Mm-hm.

Q. And if you would want to --

PROFESSOR LUCAS: Mainly, just to in a sense slightly leapfrog, to work out the apparent -- well, the cognitive dissonance between having a significant

bronchopneumonia, which is undoubtedly there, although I didn't see the slides, and the fact that the child didn't appear to have any chest problems at all until the final collapse. This would tickle one's interest as to why there's an apparent discrepancy.

Q. So for you, there are instances where it is significant to look at the X-rays?

PROFESSOR LUCAS: Yes. Sorry, I say a firm yes.

Q. Would this have been one of them, this case?

PROFESSOR LUCAS: In retrospect, yes.

Q. Thank you.

PROFESSOR LUCAS: Just to make that point, at the time of doing the autopsy, there's no particular reason to want to look at the X-rays and it's not until you get the histology slides, one might think "Oh, I wonder what they did show".

Q. But you, I think, have described this as a process where you're gathering information and sometimes what you see indicates to you that you need to have certain other information or to look at other things and so it's a process?

PROFESSOR LUCAS: It's a process, it's an ongoing process.

Q. Thank you. If we now go to the histology and the evidence. Dr Gannon, in your witness statement, 281/2, page 2, you say:

"I reached the conclusion that the pathological diagnoses present at the time of death were bronchopneumonia in the lungs and cerebral oedema of the brain. Both of these disease processes are readily identifiable on inspection of the histological sections of the lung and brain tissue made at the time of the autopsy."

And you say that Dr O'Hara appears to have made an extensive search for the presence of gastroenteritis, and then you go on to say that:

"[He] reached the conclusion that he couldn't see any structural injury to the bowel lining, but that wasn't unexpected."

In other words, am I reading you to say that just because he couldn't see that, that doesn't mean there wasn't any presence of gastroenteritis?

DR GANNON: Yes.

Q. You go on to say:

"[You agreed] with Dr O'Hara's written comment that cerebral oedema is the terminal event in several different disease processes. Bronchopneumonia is a cause of hypoxia, which can cause cerebral oedema. It's not possible histologically to determine what proportion of the cerebral oedema was caused by the bronchopneumonia, if any, and what proportion was caused

by other disease processes."

You then say something that you've already told the chairman, which is that if it were left to you, you may have placed bronchopneumonia in part 2 of the formulation of the cause of death.

So perhaps if we look at the actual reports that we have of Dr O'Hara so that we see what we're dealing with. The very first document from him is the provisional anatomical summary. That's 013-017-061. We see there that you have at 3:

"Relatively little congestion, patchy pulmonary congestion, pulmonary oedema. Swollen brain with generalised oedema."

Can I just be clear: is it the case, Dr Gannon, that whatever histology is taken and prepared is unlikely to have produced a response by 17 April or could it have?

DR GANNON: The way that Dr O'Hara produced his reports, the provisional anatomical summary is based on his naked-eye findings at the time of the autopsy. So this would be without any further investigations such as histology or the results of bacteriology or virology; this is purely based on his naked-eye findings at the time of the post-mortem. So the provisional anatomical summary is basically just a list of what he found.

The final report includes all the other tests and

investigations that he did. So this is without any further investigations; it's just basically how heavy were the lungs, how heavy was the brain, what was the obvious disease process that he could see at the time on a naked-eye inspection.

Q. I see. Thank you. Professor Lucas, would that be common that that's what that would be?

PROFESSOR LUCAS: Dr Gannon's right. This is basically a distillation of the autopsy report as it was being drafted. I have to confess to a slight fault in -- I'm talking about national guidelines. In 2002 I chaired the autopsy guidelines for autopsy practice for the College and we put in that it was a good thing to produce a provisional report and then a final one when everything was in. We actually very rapidly realised this was a pretty silly thing to say actually and our personal practice is you don't produce provisional reports because you're not quite sure who's going to read them and what weight they'll place on them and whether they'll realise they're only provisional and not final. There may be national variations, but that's my view.

DR GANNON: If I can expand on that? Dr O'Hara's workload at the time would have been principally perinatal deaths, stillbirths and miscarriages and, in those

cases, a list of the anatomical abnormalities seen in a child with abnormalities, placental infection or placental abruption, that would have been relevant. So he was always in the practice of providing a provisional report because of the case load that he had.

We have very few infant deaths or child deaths to deal with, so the same procedure is carried out, provision and then a final. But I'd agree with Professor Lucas, that if the clinician mistakes that for your final report then it could cause problems, but certainly in the miscarriage, stillbirth and perinatal deaths arena of his work, provisional reports are extremely valuable at times.

PROFESSOR LUCAS: I accept that in that context. I was particularly thinking of coronial cases where producing a provisional report can cause chaos.

DR GANNON: Yes, we don't produce provisional reports for coronial cases.

Q. Let's go to what was the final report of the consent phase, if I can call it that. That's 013-017-054. If we look just there at the final anatomical summary, you can see the history of:

"Vomiting, diarrhoeal illness with dehydration and drowsiness."

If I pause there, does it surprise either of you

that there is no reference to hyponatraemia? In fact there wasn't in the previous one. But this being the final one, does that surprise you that that isn't just recorded as a matter of record since it's in the autopsy request form?

DR GANNON: I think if it was listed as one of the main problems, the 1 on 4 on the clinical request form, my personal approach would have been to take each one of those clinical questions and answer them. So it is a little bit -- there could have been more detail in there.

PROFESSOR LUCAS: No, I'm leaping to Dr O'Hara's defence. The hyponatraemia is clearly here in this report of June 2000, just look at the third page.

Q. Sorry, I'm just dealing with, at the moment, the final anatomical summary; would you have --

PROFESSOR LUCAS: But the point is the anatomical summary is pathological observations. We can't see hyponatraemia, so you don't put it in as an anatomical summary.

Q. So it is quite proper for it not to be in there?

PROFESSOR LUCAS: Quite right.

Q. Thank you.

DR GANNON: He could have put it into part 1, saying "history of" and then --

PROFESSOR LUCAS: But the history's on the next page but

one.

DR GANNON: It's just a difference in working practice. I know that my forensic pathology colleagues do not use the clinical history as part of their final report because, to them, that's hearsay evidence. And they just base it purely on their pathological findings. So it's different working practice in different professional groupings.

Q. Thank you. Just so that I understand the point that you've made, Professor Lucas, can you see -- that first line actually is a recitation of the history. It's not a description of the findings.

PROFESSOR LUCAS: Yes, so in fact --

Q. If you bear with me a moment.

It gives you the history of:

"Acute 24 to 36-hour history of vomiting and diarrhoeal illness [which are not going to see on your pathological finding] with dehydration and drowsiness."

That is why I was asking: if you were going to try and encapsulate the history that you had been given, would you have expected to see hyponatraemia there?

PROFESSOR LUCAS: No. I mean, you're right, final anatomical summary, in fact the first two bullet points probably shouldn't be there because they're not anatomical summary; only points 3, 4 and 5 and 6 --

Q. If they are going to be there, would you have expected to see hyponatraemia to complete the picture of what you were being told?

PROFESSOR LUCAS: The point is two pages later, it's there. So the fact it was omitted on the first two lines -- well, it's not been omitted from the report.

Q. Thank you.

DR GANNON: The report comprises nine pages, and all of that gets sent to the clinician, so it's all available to the clinician at the time, so it's not just -- if it's not recorded in the first line, it is recorded elsewhere in the report.

Q. Yes. So then if we get to item 4, which -- in fact probably item 3 is the first of your pathological findings, isn't it?

PROFESSOR LUCAS: Yes.

Q. The "relatively little congestion", which is something that Dr O'Hara had identified in his provisional one. Then we have the "extensive bilateral bronchopneumonia", which is one that's an addition because that's not found in the provisional anatomical summary.

DR GANNON: But that's a histological diagnosis.

Q. Exactly. That's what I was asking about. So that's the second of the findings, and a particular finding that he made having examined the histology; that's correct?

DR GANNON: Yes.

Q. And Professor Lucas, you haven't seen that, so you're in no position to comment, but you assume, since two pathologists have seen it, that that's present in the histological findings?

PROFESSOR LUCAS: Yes.

Q. Then we've got the "swollen brain with generalised oedema", which is also there, and item 6, which is also there. And then if we go to the final commentary and we look at the second page, we're looking at a version that is unsigned and dated. For the reference we do, of course, have one that is; it's 142-001-002, but it is the same material. So there you see that:

"The autopsy also revealed an extensive bronchopneumonia. This was well-developed and well-established and certainly gives the impression of having been present for some 24 hours at least."

If we pause there. If I can ask you, Professor Lucas, if that had been seen, would the following references to the presentation of Lucy have surprised you from her notes and records? So I'm just going to identify what is there. The first is the examination at 19.30 or 7.30 pm, on the 12th when she was first admitted. I'll give you the reference, but we don't need to pull it up. It's 027-010-022 and it

simply says, "Chest clear". So she has come in at 7.30 in the evening on the 12th and the chest is clear.

Dr O'Hara is looking at her at some point, presumably later in the afternoon of the 14th. Then there is a note from Dr O'Donohoe at 5 o'clock on the 13th. That's also in her notes and records. The reference for that is 027-010-023. It says, "CXR [chest X-ray], NAD", presumably "no abnormalities detected". So that is also recorded in her notes. It's included also in the transfer letter that goes with Lucy to the hospital. Then when she is admitted to the Children's Hospital, the notes there indicate there were no abnormal respiratory findings. And one sees that, although we don't need to pull it up, at 061-018-059.

That would have been an examination carried out by Dr McLoughlin in the morning of the 13th at about 8.30. Then, at about 10.30, Dr Hanrahan sees her and he describes her as "cold on admission". That's 061-018-062.

Then there are two X-rays. There's a radiologist's report, which is dated 14 April -- so this is the second of the X-rays, the first having been at the Erne -- and in that radiologist's report, 061-036-118, we can just see it there at the bottom:

"There is interstitial oedema."

That's all it says there. There is a nursing note that describes the chest X-ray as being "a little hazy". Then, throughout the notes, no clinician appears to have considered there to be any possible diagnosis in relation to bronchopneumonia apart from, of course, when Dr O'Hara performed the autopsy.

So Professor Lucas, you're being told that there is evidence of a bronchopneumonia, which may well have been present for 24 hours or more. What would you be expecting to see recorded in the medical notes and records if that were the case?

PROFESSOR LUCAS: Well, more things relating to chest infection.

Q. For example?

PROFESSOR LUCAS: Respiratory rate, auscultation findings --

Q. Sorry?

PROFESSOR LUCAS: Stethoscope stuff. And the poor child being very short of breath, with dyspnoea, as we put it in Greek. And also the interesting point is the kid wasn't put on antibiotics as far as I can tell.

Q. Why's that?

PROFESSOR LUCAS: Given what happens in standard medical practice, if there's any possibility of an infection, antibiotics are put in as soon as possible because you have to by protocol, otherwise you get criticised.

This child was not. No one quite evidently thought there was any bacterial infective component going on here. I think that's quite interesting.

Q. What do you therefore conclude, if you're able to conclude anything, about the likely cause of what you would be seeing on the histology in terms of the bronchopneumonia from that account of the child's presentation and what's recorded --

PROFESSOR LUCAS: It would say to me that the infection in the chest, which is undoubtedly there, or the inflammation in the chest is undoubtedly there, came on pretty quickly before death. I accept that, by case definition, this can't be ventilator-associated pneumonia by the standard counts of how long you have to be in intensive care and be mechanically intubated because that doesn't quite pertain here. But in fact some of the references to VAP which you might want to come on to do say it can actually start earlier, and of course it does start earlier, but these are clinical case definitions not pathological ones.

I do note -- and it is perhaps worth reading a little bit more of Dr O'Hara's summary there -- he says:

"It could have been there when she came into hospital, but equally could have been induced at the time of seizure and collapse."

He says that there.

Q. Yes, he does. Bear with me one moment. We see it if we go to 013-017-055.

PROFESSOR LUCAS: That's right.

Q. If you can see where it says:

"The pneumonia could be possibly prior to the original disease presentation, but equally could have been induced during the time of seizure and collapse."

If that's possible, that latter option, then does that not mean that it would not have been involved as cause of the cerebral oedema and her death?

PROFESSOR LUCAS: In my view, that is correct.

Q. Dr Gannon?

DR GANNON: Oh yes, yes, I agree. The pneumonia is undoubtedly present, but it's not possible as a pathologist to say when it started. Both options are equally possible. At the time the child was admitted to the Erne Hospital, I do believe her respiratory rate was increased, which could be a sign of pneumonia. It could equally be a sign of her electrolyte imbalance and her dehydration. So it's very difficult to state exactly when this child developed pneumonia with any degree of certainty, but it is a possibility.

Q. In terms of what Professor Lucas had said about one of the suggestions from Dr O'Hara that she might actually

have presented at hospital with the pneumonia. If you give me one moment, I will take you to where he suggests that. It's a letter that he writes to the coroner 013-053f-296. Leaving aside the incorrect reference to the hospital, you can see at the bottom:

"I would feel there is reasonable evidence to infer that the bronchopneumonia was probably developing at the time of the child's initial presentation."

So firstly, do you think there's any evidence to be able to help you reach a conclusion that the bronchopneumonia was probably developing at the time of Lucy's admission to hospital?

DR GANNON: I don't think there's any evidence for or against that. I think both are equally possible. I'm aware that whenever Dr O'Hara was asked to provide this reference, there were some papers in the file that had indicated that he'd been looking up some references online, and I think he seems to be considering could the hypoxia caused by bronchopneumonia have contributed towards the cerebral oedema. There is also a recognised association between bronchopneumonia and syndrome of inappropriate ADH secretion. Bronchopneumonia is the commonest cause of syndrome of inappropriate ADH secretion. That is a possibility.

Q. Sorry, just so we get the timing right. Because

Dr O'Hara looks at Lucy's case on at least two occasions. One is in 2000, which culminates in the production of the final consent autopsy process for him. The other is in 2003 when the coroner asks him to review it as a report for an inquest. What you have seen in the file, is that indicating that those papers were being accessed in order to help him with his 2000 report or to help him with his 2003 report?

DR GANNON: Having seen the computer print outs, the date is 2003, so I believe he must have accessed those to help him formulate his second commentary or help him formulate the second commentary, the one that was sent off to the coroner. I think the first commentary is non-specific. The second commentary -- so the one for the hospital is relatively non-specific. The second commentary to the coroner, I think he's trying to indicate that there are other mechanisms of cerebral oedema which could be present in this child and, as a pathologist, he can't say which one was responsible for the --

Q. I see that. I am actually wanting to focus at the moment on the first one that the clinicians at the Children's Hospital received and, in due course, those at the Erne received, and that would have affected or might have affected people's thinking as to what they

were going to do. So if we can focus on that one first of all.

So where we were was at 013-017-055. At this stage of the commentary part of his report, Dr O'Hara is indicating that what he has seen is an:

"... extensive bronchopneumonia, which was well developed."

And which he thinks, given what he sees, could have been present for some 24 hours at least, and what I had invited Professor Lucas to help us with is: if that were the case, what would he have expected to see recorded, how would he have expected the child to present, and he did seem to indicate that you might see some observable signs if a child had that condition because that would take you into fairly shortly after she was admitted. Do you agree with that or not, Dr Gannon?

DR GANNON: To some extent, you might, but you also might not. My workload is looking at sudden infants deaths in the community. That's a substantial part of my work and we regularly have cases where an infant has died suddenly and unexpectedly that had no significant signs of any disease, may have been a bit off their food or a little bit, crying a little bit more than usual, but had no specific symptoms, and then the child suddenly dies and we find bronchopneumonia.

In my experience, these very small infants sometimes do not present with what we consider to be respiratory symptoms, you may just get diarrhoea as a symptom in bronchopneumonia. It is not uncommon and it's not unrecognised. So whilst you may expect that a lung infection would present with lung symptoms, it's not necessarily the case.

Q. Then if you're thinking you've got something relevant here in terms of contribution to the child's death, but you're not entirely sure how long it might have been present, you're not entirely sure actually whether it is causative of her cerebral oedema or not, because all these uncertainties are expressed in that commentary by Dr O'Hara. To go back to the point that I had been raising with you before: does that not suggest that this is now a time that I might want to discuss with the clinicians to see what they observed of her or, if I haven't already got access to her medical notes and records, have a look at her medical notes and records to see if there's anything there that can help me refine that view that I'm expressing there?

DR GANNON: I accept that, yes, but Dr O'Hara's report is principally a pathology report. There isn't an awful lot of clinical information in there in that he is just expressing what he has seen pathologically. So the

bronchopneumonia, he's seen that pathologically, the cerebral oedema he's seen that, and the acute hypoxic injury in the brain, he has seen that. Hyponatraemia is not a condition that a pathologist can diagnose on their own. We cannot see sodium ions down a microscope. It's not something that we can diagnose. We need clinical input to diagnose that. Dr O'Hara had a phrase, "This is a starter for ten". So this may have been his starting point and there may have been subsequent discussions with the clinicians about what all this means that he hasn't recorded. I've not been privy to any of those so I don't know, but --

Q. If he had had those discussions, do you think that's something that should have been recorded?

DR GANNON: Possibly, yes. Certainly we would do it nowadays. Any further discussions with the clinicians, any substantive discussions that change your opinion or add to your opinion, we would record as a supplementary report.

Q. When I put before --

THE CHAIRMAN: Sorry, doctor what you have just said over the last few minutes seems to emphasise the importance of some follow-up discussions between the clinicians and the pathologists.

DR GANNON: Very much so, yes.

THE CHAIRMAN: The evidence isn't perfect, but on the evidence we have, that doesn't appear to have happened.

DR GANNON: It doesn't seem to have. Dr O'Hara, I think, had worked in the Royal Victoria Hospital for 30 years or more. He would have had a very close working relationship with the clinicians. There may well have been informal meetings or informal discussions, but there's no record of that. Nowadays everything is far more formalised, mortality meetings are minuted, we provide secondary or second reports, supplementary reports if required. That maybe didn't go on back then.

THE CHAIRMAN: I know that from the first death that we're looking at in this inquiry, the death of Adam Strain in 1995, the consultant nephrologist was sufficiently concerned about what had happened that he went to the post-mortem because he wanted to engage with the pathologist. So it wasn't unknown in the Royal in the mid-1990s. Five years earlier, there were exchanges.

DR GANNON: As a trainee in the Royal, we performed far more autopsies than are now performed, and we frequently had clinical staff coming down to observe the autopsy or to discuss the findings. It was a relatively common thing.

THE CHAIRMAN: Thank you. We need to take a break at some point soon. Is this a good point or not?

MS ANYADIKE-DANES: It probably is, actually, Mr Chairman.

Thank you very much.

THE CHAIRMAN: We'll take a break for the stenographer for a few minutes.

Mr Stitt, are you here to tidy up Altnagelvin from yesterday?

MR STITT: Partly, sir. I'm awaiting some further information and perhaps, at the luncheon interval, I can address you on it.

THE CHAIRMAN: I'll continue then with the witnesses after the break.

(12.00 pm)

(A short break)

(12.22 pm)

THE CHAIRMAN: Just to tell everyone, rather than break at 1 o'clock or thereabouts for lunch, we're hoping to press on through to finish the evidence of the two witnesses. I think we've got more than halfway through. Let's see what we can do.

MS ANYADIKE-DANES: What we were dealing with, just immediately before the break, was the evidence of the bronchopneumonia and the implications of that. What I want to now move on to is the other alternative that was canvassed by Dr O'Hara, which was the hyponatraemia.

Dr Gannon, in your second witness statement for the inquiry, 281/2, page 3, you make the point that you had

just mentioned to the chairman earlier, which is dilutional hyponatraemia is a diagnosis that cannot be made by a histopathologist alone. You then go on to say that:

"Cerebral oedema is a descriptive term to describe the appearance of excess of water accumulating within the brain tissue."

And you go on to talk about processes or at least how that can occur. Then ultimately, you conclude that:

"This is a diagnosis reached by a clinicopathological correlation. Clinicopathological correlation is an objective summary and correlation of the clinical findings in a particular case with the gross and microscopic findings and with the results of other studies performed at autopsy."

Professor Lucas -- and we can pull this up, it's 252-004-001 -- the point that you're making is, and I'll read it out --

PROFESSOR LUCAS: Is this in my report?

Q. Yes:

"The point is that in 2000, at the time of first preparing the pathological cause of death, the cerebral damage is attributed solely to the lung infection. However, bronchopneumonia does not produce cerebral oedema in the cadence presented clinically here. That,

plus the known hyponatraemia, could and should have prompted consideration of another cause of the cerebral oedema."

So can you explain, therefore, what prominence or otherwise you think that bronchopneumonia should have been given in Dr O'Hara's report?

PROFESSOR LUCAS: Well, it's obviously present.

Q. Yes.

PROFESSOR LUCAS: It probably didn't expedite the death. It would only expedite the death if in fact it was beyond all reasonable doubt, so to speak, that it caused the collapse, the seizure. Let us get the chronology right. At the time she had a seizure, at around 3 am on 13 April, she is effectively dying, so that is the moment when death starts. The rest is kind of dealing with that. And the crucial question is: could the bronchopneumonia have caused that seizure?

Q. You mean could there have been sufficient bronchopneumonia to have caused that seizure?

PROFESSOR LUCAS: Yes, that's right. My opinion from reading the clinical stuff and from reading all the information is no. So you then say, well, if you take --

Q. Sorry. If I can pause you there and maybe you could help us with this because I'm not sure we've looked at

it in that way so far. And that is when Dr O'Hara is examining the lungs, the histology, he's examining whatever was Lucy's position as at the afternoon of the 14th.

PROFESSOR LUCAS: Yes, essentially 24 hours after Lucy started dying.

Q. The point you're making is that you really need to try and get a view on what was the likely state of her lungs at the time of her collapse, 3 o'clock in the morning of the 13th, to try and see whether that was likely to be sufficiently severe to have brought about that collapse?

PROFESSOR LUCAS: Yes. This is absolutely standard post-ITU care death analysis. What is important is not necessarily what they had when they come to autopsy, which here is a day later, which is good. Had she lived for another two weeks, this would have been a mess. You probably wouldn't have got to the bottom of it at all from any pathology at all; it would all have been done inferentially by other means. We see this in many cases and the crucial question is: why did she collapse when she did? That's the main thing that one's job is to try and address.

Q. What would you have understood from all the material that was available, whether it be in the medical notes and records, or whether it's in the histology, what

would you have understood that would have been?

PROFESSOR LUCAS: There are two choices here, let's be clear, or three choices. One is dehydration so severe that it caused brain shutdown, the Curtis hypothesis, which we all agree is not reasonable here. Secondly, overwhelming chest infection to produce respiratory arrest, which leads to brain death, hypoxic ischaemic encephalopathy, which is a possibility, but I don't think it happened here, the evidence we have doesn't really support that. Thirdly is something else, something completely different, causing brain swelling and finally coning, ie very severe brain swelling. Mild brain swelling is common. No, it happens in many circumstances. Severe brain swelling like this to cause death is not so common. One looks around for causes and it's actually printed in front of one.

Q. Which is?

PROFESSOR LUCAS: Hyponatraemia. This is an association that is recognised.

Q. So if you had been providing that commentary, do I understand you to say that you would have mentioned the bronchopneumonia because you have found it?

PROFESSOR LUCAS: Yes.

Q. And you would have expressed your views about its significance and role?

PROFESSOR LUCAS: Yes.

Q. And then you would have gone on to discuss the hyponatraemia?

PROFESSOR LUCAS: Yes, essentially. And if you asked the question, "Would I have put it in a cause of death sequence?", I'm not sure. The only reason is, being purely cautious, if you give the ONS that sort of cause of death they might take that more seriously than it warranted. A strange thing to happen, but that's the statistical bit.

Q. Then if I ask you, Dr Gannon, before the break you were saying that your own approach to these things, when I was asking about gathering in the material and making sure you understood what the issues were that you were going to particularly have in mind when you conducted the post-mortem, you said your approach would be you take those clinical problems that have been identified for you on the autopsy request form and effectively you work through them in terms of what you can see and what you can conclude from other information you have and your findings. Is that fairly summarising your approach?

DR GANNON: That's correct. I tend to use rhetorical questions in my commentaries on occasion. If I haven't been given sufficient clinical information -- "Did

the mother have symptoms of intra-amniotic infection?" If I haven't been given the information that I require and I'm not able to obtain it, we would take cases from all over Northern Ireland and communication between the clinicians is quite difficult in distant hospitals sometimes. So I would use rhetorical questions and, if they come back to me and say, "This is further information", then I would send out a supplemental report based on that.

Q. And factor that into a revised view if necessary?

DR GANNON: Yes.

Q. So then if that's your approach, and just for ease of reference for you, if we pull up 061-022-073 and have alongside it 075, the questions that you're going to ask yourself, do they revolve around the clinical diagnosis and the list of clinical problems?

DR GANNON: They would tend to. Hyponatraemia, as I said in my statement, is not a pathological diagnosis. It would require more involvement from the clinicians for me. I step back from this a little bit. I don't think, in a consented case, it's the pathologist's responsibility to formulate the cause of death. It's the clinician's responsibility with the pathologist assisting that.

Q. Yes.

DR GANNON: The pathological findings are cerebral oedema.

It's then up to the pathologist to find a cause of cerebral oedema. If there isn't a physical cause that the pathologist can recognise, such as a tumour or brain haemorrhage or meningitis, then you have to consider other causes. That's the way I would have approached this.

Q. If we start in that way, and the pathological finding and indeed what was considered to be the immediately proximate cause of death, which was coning resulting from a fatal cerebral oedema, so if we take that, and if you say what I'm, as a pathologist, trying to find out is how and why did that, the problems that the clinicians have identified -- so someone might interpret that as some of the things in their mind as possibly leading to the child's condition and demise are listed under those four things, I don't quite now how they all fit in, but that's some of what's in their mind. You might interpret it that way. So if you're going to express a view, do you then take that and see what, if any of that, can I explain for them in the context of the cerebral oedema, some of which you won't be able to because either you don't find it or it's not the sort of thing that's amenable or susceptible to your kind of investigation, but in any event are you looking at those problems? If that were the case, would you say that the

report that -- and I'm going to ask this of both of you -- Dr O'Hara produced in June 2000 answered, insofar as it could, the questions that the clinicians had?

DR GANNON: It doesn't address the entirety of the clinical questions. Hyponatraemia is present in 30 per cent of hospital inpatients. It is the commonest electrolyte imbalance in hospital patients. The weighting that Dr O'Hara would give to hyponatraemia depends on the severity of the hyponatraemia. It would depend on the clinicians pointing him in that direction. Hyponatraemia on its own may or may not be a significant feature in the clinical presentation, whether it's mild, it may be irrelevant; if it's very severe, it's obviously causative. It is not up to the pathologist based just on hyponatraemia to say that that was the only cause of cerebral oedema in this case. It requires clinical input.

Q. Yes, I hadn't framed my question quite in that way. I had said: if you consider these to be the queries that the clinicians have, hyponatraemia is mentioned twice and the sodium levels are given, although you don't know how speedily she declined from 136 to 126, which might turn out to be something relevant to ask about. But in any event, you don't know that, but they've gone to the trouble of identifying hyponatraemia twice. So

presumably they don't think that it's of the sort that's so de minimis in the scheme of things that it's not worth mentioning really. So the question I was putting to you is: insofar as it can be done, do you think that Dr O'Hara's June 2000 report addressed the questions and concerns that the clinicians were raising?

DR GANNON: It could have been more descriptive. However, the clinicians could have been more definitive in their concerns, they could have said, "The cerebral oedema, was it caused by hyponatraemia?", in which case the pathologist would have put more weighting on that. As I said, hyponatraemia is common in hospital inpatients.

Q. So this comes back -- I'm going to ask Professor Lucas the same point. Maybe I'll ask him that now before I ask you anything further. So far as you're concerned, Professor Lucas, and you describe this as a very good autopsy request form, do you think that Dr O'Hara's June 2000 report adequately addressed the concerns that clinicians were expressing in the autopsy request form?

PROFESSOR LUCAS: No. As it is, it does not.

Q. It doesn't?

PROFESSOR LUCAS: No, it doesn't.

Q. Why is that?

PROFESSOR LUCAS: Because it doesn't address the severe

cerebral oedema, the coning, ie very severe cerebral oedema. It doesn't link in with the history of diarrhoea and vomiting, which is why the child presented originally, and so on. It doesn't address the acute process, what happened in the early morning of 3 April. It may well be -- I'm sure you're going to ask, but we'll both say this -- that he was expecting the clinicians to say, "Yes, let's talk about it and see where we can go", but from the fact of what's written down here it does not address those issues.

Q. Yes. That's exactly where I'm going to go because both of you have talked about the significance of clinicopathological correlation, and I think I have understood you, Dr Gannon, to say that, based on the problems that were presented here and what you see or saw Dr O'Hara as able to produce, that this would have been a case which would have benefited from precisely that kind of exchange?

DR GANNON: Very much so, yes.

Q. Would you agree with that?

PROFESSOR LUCAS: Agreed.

Q. Thank you. Just so that we have it, the inquiry's expert Dr MacFaul, who is a consultant paediatrician and who was also providing expertise on governance issues to the inquiry, he summarised what he thought were

difficulties with Dr O'Hara's report. They come from his report, we don't have to pull it up, but they come from his report at 250-003-007. If I just identify some of them for you and if you can express a view from your point of view as the pathologists -- he's speaking from the clinician side of it -- whether you think these are fair comments.

The first is that:

"The report did not identify the cause of cerebral oedema satisfactorily."

And I think that's a point Professor Lucas, that you have made. Would you accept that, Dr Gannon?

DR GANNON: Yes. He has stated that it is a pathological finding but he hasn't gone into detail about what he thinks has caused that.

Q. Yes. Then he says:

"[He] did not engage with the question of whether hyponatraemia contributed to the cause of death, although the clinical diagnosis refers to hyponatraemia and was documented within the report."

We don't need to go to it, but I was going to give you the reference, but it carries on from where we were before. So that's another comment. And I think from what you said, Professor Lucas, you would accept that?

PROFESSOR LUCAS: Yes.

Q. And Dr Gannon?

DR GANNON: Yes, on the basis that Dr O'Hara's report appears to be more or less purely pathological findings rather than looking at the clinical aspects of the case.

Q. Yes. And then the other comment he makes is that:

"[He] overemphasised the bronchopneumonia, which was not a clinical feature on admission at the Erne Hospital."

There is a slightly different reference for that. 250-003-142. Professor Lucas?

PROFESSOR LUCAS: Yes.

DR GANNON: I would disagree with that. There is bronchopneumonia present. Whether it was seen on the X-ray, whether it was clinically diagnosable is irrelevant. It is there as a pathological finding. I don't think Dr O'Hara's report specifically says "This child died of bronchopneumonia", but it is a significant disease process.

Q. He also points to something else, and Dr Gannon, you may be able to help us with this. He said that the Children's Hospital guidelines -- and these I think are the Paediatric Medical Guidelines -- state:

"If an autopsy is requested by a paediatric neurologist [which Doctor Hanrahan was] then the autopsy is generally carried out by a neuropathologist."

Do you have any experience of that?

DR GANNON: The neuropathologists work in the same department that we're in. It's very much teamwork. We would often do a double-doctor approach with neuropathologists and paediatric pathologists, depending on the case. It is quite a fluid organisation that we call in the pathologists that we need to assist us with the autopsy. So Dr O'Hara may have got the help of a neuropathologist when he was looking at the histological sections of the brain. He hasn't recorded that, but Dr Mirakhur was the consultant neuropathologist at the time. He may have asked her opinion on the brain, we don't know.

Q. We had this actually as far back in 1995 in relation to Adam Strain. If a pathologist brings in other expertise to assist, which as the evidence to the inquiry is, that actually happens quite often. If that happens, is the practice that you record that has happened?

DR GANNON: Generally now, yes, it would be. If I have used someone else's opinion to formulate my own commentary, I would mention them in the report and show them the report before I finalise it to make sure that they agree that I have interpreted their opinion correctly. Back then, it may have been less formal than that. I know that the two paediatric pathologists, Dr Thornton and

Dr O'Hara, would have worked together on a number of cases and would have shown each other cases, but maybe wouldn't have recorded that in their records at the time.

Q. Is this a case which you think might actually have benefited from the introduction of other expertise? I'll give you an example of it. A case had happened about 14 months afterwards, which was the Raychel Ferguson case. I'm not sure if you're familiar with that.

DR GANNON: I'm not familiar with the details.

Q. That case was the subject of an inquest and Dr Herron carried out the post-mortem. When he approached that case, he brought in expertise in the form of Dr Clodagh Loughrey to address specifically the hyponatraemic issues. That's about 15 months later he was looking at that. Is that something that you think would have been appropriate for Dr O'Hara to have done?

DR GANNON: It would be appropriate for any pathologist. If you're dealing with a case where you're not entirely certain, you'll bring in an expert as required. Dr O'Hara may have thought that he didn't need to bring an expert in; he may have brought an expert in and not recorded that; we just can't know from his report.

It would be common practice. If for example, I'm dealing with a case -- if you look at the double-doctor cases that we do with forensic pathology and it's a child who's died suddenly in the community, the brain goes to neuropathology for an expert opinion from the neuropathology, so there's three of us working on the same case.

If I have a difficult case with a combination of different infective organisms and I am not too sure which is the relevant organism that had caused the final disease, I would speak to Professor Coyle, who's one of our consultant microbiologists, and I would mention him in the commentary saying that I have discussed it with him and this is his opinion. It is a common practice to bring in experts as required.

Q. Let's take what you might have done. This is in 2000. This all starts with trying to understand why this child has developed her fatal cerebral oedema. And faced with that, a large part of the consideration may be of her brain. Faced with that, would you have thought it appropriate to have at least sought the assistance of a neuropathologist or, seeing hyponatraemia, somebody who is more expert in that?

DR GANNON: I don't think at the time the post-mortem was carried out on the day, you would need

a neuropathologist to be present because the brain was retained and formalin fixed. The brain could then have be referred at a later date to a neuropathologist.

Q. I don't mean on the day, I just mean, generally speaking, would you have thought that that would be an appropriate thing at some stage?

DR GANNON: It depends on the experience of the pathologist concerned. Dr O'Hara may have thought that he had enough experience to deal with in this sort of case himself without calling in an expert.

THE CHAIRMAN: Or he may have thought that there was going to be a further discussion and that in turn may lead to the engagement of another pathological expert?

DR GANNON: Yes. As I said, he tended to see his reports as a "starter for ten". That was his phrase. The way -- from my recollection as a trainee of the way that he worked, he would then take the case to the mortality meeting, there'd be discussions and there may be further investigations ensuing from that. That's how I recall him working. As I said, I was a trainee at the time so not intimately involved in his day-to-day work.

MS ANYADIKE-DANES: The other point Dr MacFaul makes is Lucy's weight, when recorded at autopsy, is 12 kilograms. She is recorded as 9.14 or 9.8, depending on -- 9.14 is the lightest, which is when she's in the

Erne. I think it's 9.8 at the Children's Hospital. But for either of those it is quite a step up to 12 kilograms, and what Dr MacFaul suggests is that even if that had been an error, that whoever is the technician maybe who weighs the child for you -- just seeing an increase in weight like that, coupled with hyponatraemia, may perhaps should have indicated that some attention should have been given to Lucy's weight; would you accept that?

DR GANNON: Knowing the equipment that we have available, we have two mortuary rooms, mortuary chambers where we work. We have the baby room where we predominantly do the babies who are miscarried or stillborn -- those scales go up to 10 kg -- and then we have the adult room and the adult weighing scales is basically the slab. And the tolerance, the error tolerance on those is much higher. The baby scales are much more accurate. So she was just too big for the baby scales. That's why there's probably an error in that. I think the organ weights are much more important than her absolute body weight and when you look at the weight of her organs they are slightly small for her age. The brain weight is slightly heavy for her age. So there was cerebral oedema based on her absolute brain weight. That is much more important, I think, than the absolute body weight.

Q. And Professor Lucas?
PROFESSOR LUCAS: I agree with everything Dr Gannon has said in the last 10 minutes.
Q. Thank you. Then if we go then to the timing of the death certificate. This is an issue where I think the two of you have, or at least did have, on the face of your reports, a difference.

Maybe if I might start with Professor Lucas. It starts in your report at 252-003-011. By the "timing of death certificate issue" I mean the waiting from when death occurs until at some point after the post-mortem to issue the death certificate. You say in the third paragraph:

"To, apparently, wait for the autopsy before writing the death certificate is (at least) inappropriate, and possibly an infringement of the law."

And you then say:

"What is required is for the treating doctor to sign and give forthwith to a qualified informant the certificate. The current wording in the department in Northern Ireland is even clearer: 'Medical practitioners have a legal duty to provide without delay a certificate of cause of death'. So the proper sequence is as to the historical standard practice: a death certificate is completed before commencing the process of obtaining

a consent autopsy."

And then you go on to say that you consider there are concerns about that, and if we pull up the next page, I think that captures it.

You start by saying:

"It perverts the whole coronial referral system for querying unnatural deaths. By allowing a consented autopsy, more people -- including the pathologist -- could more readily conspire to hide a genuine unnatural death from public notice. The usual process, natural death certificate or referral to the coroner, makes the doctors think promptly about why somebody died and what to do next."

I have said this on every occasion I have cited this that nobody has suggested that that is what happened here, that anybody was trying to conspire to do anything, but what you're doing, I think, is trying to put forward the possible dangers in having that system. That's your view. And if I then put in what the guidance says and I would like you, if you could, to help us with your interpretation of matters.

If we start off with the Children's Hospital paediatric guidelines, the second edition 1999, that says, and we can pull up 319-067a-030, and have alongside it 031.

This is really just fairly general guidance to give some help as to what to do and one sees the relevant passage on the 031 page, about two-thirds of the way down:

"For a hospital autopsy, the pathologist requires the written consent and the clinical summary on a completed request form. When it is complete, the pathologist will telephone the ward with the result and a death certificate can be issued if this has not already been done."

So this clearly indicates it's possible to await communication from the pathologist before issuing the death certificate. The other matters arise in the year after that. There's a 2000 "Royal College of Pathologists guidelines for the retention of tissue and organs at post-mortem examination", and the reference for that is 319-025bc-015.

Under "Consented post-mortem examination", the second paragraph:

"If you agree to a consented post-mortem examination the doctors [because this is really being directed towards the pathologists] will issue the medical certificate of cause of death before the post-mortem so that you can proceed with the arrangements for the funeral."

And then the final bit to slot in is from Dr Keeling, who is also an expert for the inquiry. She produced a report titled "Dissemination of information gained by post-mortem examination following unexpected death of children in hospital". And the relevant part of her report is to be found at 303-053-757. It's paragraph 11. She says in the second sentence:

"When a post-mortem has not been instructed [by that she means by the coroner] a death certificate may be issued by the responsible clinician on instruction from the coroner or by the clinician taking into account information from the pathologist when a hospital post-mortem has been performed."

That first version we've heard is called a "form 14", but it's the latter one we're looking at:

"... or by the clinician taking into account information from the pathologist when a hospital post-mortem has been performed."

Which also indicates, alongside the guidelines from the Children's Hospital, that you can wait.

So that's what you have said, Professor Lucas, and that's what the guidelines and what another inquiry expert says. Can you explain your experience that led you to warn about the possible dangers of waiting for the post-mortem?

PROFESSOR LUCAS: Two things. One is there's evident variation across the British Isles. You have just read them out, they're different. Secondly, in no way was I suggesting at any time that anyone was conspiring, colluding or whatever. I hope it wasn't read that way, so just to make that clear.

I was just very puzzled by this because I had taken it as gospel that when someone dies, either a medical certificate of cause of death is written, and it has to be a natural one otherwise you can't write it, so the two terms are synonymous here, which could be registered, or the case is referred to a coroner, and it's a fairly Manichean situation. There's no halfway house, there's no holding. I was therefore a bit surprised to come across this variation, shall we say, and even a bit some more surprised to see Jean Keeling writing it down as well, which she did.

I do wonder if Dr Gannon could help us as to whether this particularly pertains to maybe things like earlier deaths than Lucy's, to foetal malformation and things like that, where in a way the clinicians might not have a clue. There's no question of any mishap or anything, it is natural, but they're not quite sure what's going on and may well be might be quite useful to have a spec autopsy report, an anatomical summary, as we have

discussed before, to help with that. Let's just park that on one side because I don't deal with those sort of cases. Otherwise I find it rather surprising.

Then I asked my pathological colleagues and also I know a lot of bereavement officers because I have been president of The Association of Anatomical Pathology Technologists who are often the bereavement officers in a hospital. And I put them a few questions to say -- all the ones in London, this is -- what's your take on these questions? And they're all absolutely adamant that either a death is written down for a medical certificate of cause of death to be given to the relatives and then you consider a consented autopsy or the case goes to the coroner, full stop. They're a bit surprised that there was this variation here.

Q. Firstly, when I asked Dr Crean, who is a consultant paediatric anaesthetist, in whose name Lucy was admitted, his view was very clear: you either can at the point of death write a death certificate or you can't. If you can, you do, and if you can't, you refer it to the coroner. So he was pretty clear about it.

PROFESSOR LUCAS: Yes.

Q. That's one thing, but you then go on to express a view as to the possible dangers of not doing it in that order, and that actually was where I wanted to ask what

your source of that concern was. I can quite understand when you say there may be different practices across the country as to the order in which you do things, but when you identify a potential danger, what is the basis from which you got that concern?

PROFESSOR LUCAS: Well, from seeing cases -- in a way not dissimilar to this -- where you think this could have been managed better, and therefore you do have a ... The process is a natural disease and the question is: could it have been managed better? And you wonder at a certain point, having discussed it, whether it should have gone to the coroner, and sometimes, as Dr Gannon has said, you do actually retrospectively refer cases. But it was just the potential there --

Q. It's strong words, "... perverts the whole coronial --

PROFESSOR LUCAS: Maybe I overstated it a bit, but I'm highlighting the fact that potentially that could happen and we've seen enough peculiar things happening in death analyses over the last two decades across the United Kingdom to be concerned that this is a potential consequence.

Q. Thank you. Dr Gannon? Do you have a concern, leaving aside -- nobody is suggest, as I've said many times and Professor Lucas has emphasised, that that happened here, nobody is suggesting that at all. But if you sort of

take out from that, abstract from that, can you see the concern that Professor Lucas is referring to?

DR GANNON: I can see the concern. I don't think it exists in this case. The working practice in Northern Ireland is very different from the rest of the United Kingdom. I worked for three years in Leeds as a consultant paediatric pathologist in Leeds. It is a very different process. In Northern Ireland, an autopsy is carried out extremely quickly after death. We have a cultural tradition of burial or cremation very quickly after death. And as a result, a post-mortem is carried out either on the day of death or the next day. My colleague and I essentially work on call, standby, as it were for cases, and we would often carry out a post-mortem while the undertaker is waiting and then release the body to them.

I think in this case a medical certificate of the cause of death could have been issued in the morning. The discussion between Dr Curtis and the clinician suggested that they might have put down, as they did in the end anyway, cerebral oedema due to dehydration, due to gastroenteritis. That was an acceptable clinical cause of death that could have been completed. It is not unreasonable, I would submit, to delay issuing the cause of death certificate until the afternoon when the

post-mortem is carried out, just in case you find something completely unexpected, and then you have a much more accurate cause of death. In the end, in this case, that didn't happen because the medical cause of death that was originally discussed with Dr Curtis was the same as the cause of death that finally ended up on the death certificate. But it's not unreasonable to delay issuing a cause of death certificate for a few hours. Had there been a long delay -- so in Yorkshire, in Leeds, there would have been several days between the patient dying and the autopsy being carried out -- that would have been unacceptable -- but for a few hours, I don't think makes that much of a difference.

THE CHAIRMAN: On that basis then, if you were going to do an autopsy in Leeds -- and that may take, let's say, up to a week --

DR GANNON: It could sometimes, yes.

THE CHAIRMAN: -- would you expect a death certificate to be issued immediately in Leeds?

DR GANNON: Yes, generally it was.

THE CHAIRMAN: So what you're in effect saying because we have a culture on this island of burying people more quickly than they do in Great Britain, the difference here is a post-mortem is done almost immediately so that there isn't any delay in returning the body to the

parents for the funeral beyond a few hours from a morning to an afternoon?

DR GANNON: Very much so, yes. It's an insignificant delay. If there's anything unexpected that was found, that should have been put on the death certificate, it can be put immediately on to the death certificate. There is a facility in the death certification process by which you can indicate on the form that there will be further information coming after the post-mortem, but that doesn't get included into the ONS statistics. So from the point of view of general population cause of death statistics, any additional information does not get into the system, basically. So it just makes the death certification process a little bit more accurate.

MS ANYADIKE-DANES: Really? However significant that might be, it doesn't feature?

DR GANNON: I don't know. I wouldn't have the working insider knowledge as Professor Lucas. It's just a little box you tick to say more information is available --

Q. We have seen that and, in fact, in just about every single case I think it was ticked. What I was particularly asking you about is your comment for coding or statistical purposes, that should you find out something significant like, let's say hyponatraemia

becomes relevant in some way, that that would not find its way into the ONS statistics.

DR GANNON: I don't think it does, no, but I would defer to any expert on that. It's not my area.

Q. I'm very grateful. If I can ask you two things: I hear what you said about the death certificate. As it happened, and Dr Hanrahan has given his evidence, despite whatever emerged from the communication with the coroner's office, he actually still did not feel he could write a death certificate, which is actually why he wanted a hospital post-mortem because he couldn't do it. Leaving that aside, Dr Hicks, who was the paediatric clinical lead at the time, her view was that responding speedily was or could be accommodated by waiting for the provisional anatomical summary alone in the same way that you've identified, and that usually came out quite speedily and that could be helpful. What she then went on to say is that if you were going to wait for the full autopsy report, she thought that was too long and you shouldn't be doing that, holding back on issuing your death certificate, awaiting the full autopsy report; would you accept that?

DR GANNON: Oh, very much so. If Dr O'Hara had found something like a major brain haemorrhage or, as Professor Lucas said, a pulmonary embolus that could

have caused death, that would have been appropriate to add in -- just based on the naked-eye findings, you could have added that in to the death certificate. As it was, the findings were histological, microscopic findings, which would have been several weeks before they were available.

Q. Let's actually have the timing and if I might ask you both what you think about this timing. Lucy dies at about 1 o'clock on 14 April. She has her post-mortem carried out later on that afternoon by Dr O'Hara. By 17 April, he issues the provisional anatomical summary, and then nothing else emerges yet because he's presumably working, waiting for brain fixation or whatever he's doing, to enable him to produce the final report. Then it's not until 4 May, prompted by a query from the family, that the medical cause of death certificate is issued. Do you think that's too long?

DR GANNON: Generally, the death certificate would be issued very quickly after death, within a day or two, to enable registration of the death and subsequent burial. As Dr O'Hara wasn't involved in the issuing of the death certificate, it's not --

Q. I'm asking your view. You have expressed a view on things being done more speedily here and that's an explanation for why you might hold off and wait for the

provisional anatomical summary. In your view is that too long a period of time to wait until 4 May?

DR GANNON: The final pathology report can often take 8 to 10 weeks to be made available. It depends on the investigations that you're dealing with, whether you're doing genetic testing or electron miscroscopy or whatever. That would be too long. You'd need to certify the case before then. Waiting for the provisional summary -- because that's usually released within 48 hours -- again would not be unreasonable. In Northern Ireland that might even be a bit too long sometimes.

Q. Professor Lucas, is it too long?

PROFESSOR LUCAS: Yes. I think that the business about the timing is absolutely crucial here and I apologise to the court. I hadn't quite realised what happened and I would have phrased myself rather differently if I'd been aware of exactly what has come out in the last five minutes, but when I wrote the report I was not.

You have to stand a little bit further back and ask, "Why are we doing this, what is all this about?", and the answer is: disposing of a body. What happens, as you know, is that in the end a body is disposed of via a bit of paper, a form, and that is going to be a cause of death. It either comes from a coroner or it comes

from a doctor who, to the best of his knowledge and belief -- that's the stringency -- can fill in a natural cause of death. That goes to the registrar who produces a certificate and says to the relatives, "You can now do with the body what you wish. Burn it, bury it, repatriate, whatever", even the end of your back garden probably. The crucial thing is hanging onto the body. Remember what the coroner's job is: the coroner is there purely not for public health, but the coroner is there as the guardian against unnatural death. If you ask coroners and the Ministry of Justice what is their fundamental job statement, that is what they are there to do.

So the process you have in Northern Ireland, where actually the body stays in the same place, well looked after, and is examined after that very quickly, I have to say is rather good. The point is no one is disposing of the body, no one is putting at risk the possible reduction later on of getting information if you needed it. It's all being kept in-house.

In mainland Britain, that doesn't happen, as you rightly said. All autopsies take ages to get going unless there are Muslims or Jews on a Friday afternoon -- and I mean this literally -- pressing the case, in which case you may do things rather faster. So there is

a lag. So someone has to make a decision, "What are we going to do? Are we going to just let this hang over the weekend, over several days?" No, you can't do that. You decide "It's for the coroner" or "We can write a natural cause of death" and you do one or the other. It is basically the disposal and retrieving potentially useful information if it goes wrong is at the heart of this whole process of when you make a decision. The process here in Northern Ireland is different from the rest of Britain as far as I can see.

DR GANNON: Could I point out, we have a further difference with the coronial system here? The coroner has a system called a pro forma letter and this is where a clinician is of the belief that the death is natural, but the patient may have had several different disease processes present and the clinician wasn't certain as to one which ultimately caused the death. So you can't do a 1A, 1B, 1C death certificate, so if you discussed the case with the coroner -- and we are now finding that more and more pro forma letters are being used -- now that we have a medical officer in the coroner's office, the clinician will discuss the case with them, they will reach an agreement about the causation of death, the clinician will complete a pro forma letter outlining the circumstances of death and what they think is the most

likely cause without being absolute, and then the coroner will issue the burial order for the disposal of the body.

I have not come across that system in the mainland UK, wherever I've worked there, and it is a superb system and it really does benefit families here where we know the death is natural, but we're not entirely sure what is the cause of death.

PROFESSOR LUCAS: I would again echo exactly what you say. This is a system which will be introduced in England and Wales called the medical examiner system. There is legislation for it under the Coroner and Justice Act 2009. That's what we're moving to; you've obviously beaten us to it.

Q. Clearly, the clinicians have not responded to the provisional anatomical summary to issue the death certificate then. We don't know why not, it just hasn't happened. Maybe they were waiting for the final report, but we don't know. What we do know is that they are prompted to issue the death certificate because they receive a query from the family who want the body released to them.

Given that the provisional anatomical summary doesn't even purport to address some of the queries that led to the hospital post-mortem being requested in the

first place, would you have expected that need to issue a death certificate at that stage and given that they didn't have the final report accessible to them or available to them, would you have thought that that should have prompted some discussion between the clinicians and the pathologist at that stage?

DR GANNON: It may well have done, but there's no record of that.

Q. No, at the moment we don't know those things. I'm simply asking: would you have thought it would or should?

DR GANNON: It should have done. The system that we work under, the provisional summary is actually the second step and the first step is that we contact the ward by phone to give them a verbal finding -- that is in the protocol somewhere -- and then the second step is the issuing of a written provisional report and then the third step is the issuing of a final written report. So Dr O'Hara may well have telephoned the ward immediately after the post-mortem to give them some findings. That is in the system.

Q. But in your view, just looking at what happened, there should have been contact -- let's not say who should have initiated it -- between the pathologist and the clinicians if, in advance of any further information

from the pathologist, a death certificate was going to be written?

DR GANNON: Yes, there should have been.

Q. Professor Lucas?

PROFESSOR LUCAS: Agreed.

Q. Then can you help us, in either of your views, where do you think the burden of doing that would lie?

DR GANNON: It depends on the weighting, I think, that the clinicians placed upon some of the more complex factors in this. If the pathologist wasn't aware that the degree of hyponatraemia was as severe as it was, he then may not have given the weighting in his commentary about that. So again, I think this is a difference of approach between me and Professor Lucas. I don't think the pathologist takes the role in pushing these cases forward. I think the pathologist is just one part of the whole investigation and the clinician should take the lead.

This is coming from a background -- the majority of cases are contented cases as the majority of Dr O'Hara's cases would have been, consented cases, so it's a slightly different approach if you're dealing mostly with hospital consented cases or coronial cases.

Q. Okay. I think we've heard Professor Lucas does think at this stage, once the autopsy is being undertaken, that

the pathologist has a certain lead there.

You have helped us with the kind of information and discussions that might have happened before the autopsy actually started. Some of them might be ongoing even to assist in the provision of the most useful report.

If we move now to the stage where the report is out, so the June 2000 report has been issued and the clinician has it. Then Professor Lucas has said that, in his view, you have reached now a stage where that is the best that the pathologist can do with the material, that's his best view of what happens. In order to actually resolve the problems that prompted the autopsy in the first place, there needs to be the clinicopathological correlation.

If I might just refer you to something that Dr Herron said, who I know that you both know, dealing with an earlier case. He was describing, in his witness statement for the inquiry, the process in the Children's Hospital in 1996 -- or the Royal, really, because the Department of Pathology serves not just the whole of the Royal Hospital but also the region. That's correct, isn't it?

DR GANNON: Yes.

Q. The reference is 224/3 at page 6. He says:

"The two main channels of communication in 1996

[this is communication between the pathologist and the clinicians] were the paediatric mortality meetings [because he's a neuropathologist] and the neuroscience grand rounds. As far as I can remember, all paediatric deaths in the hospital were presented at the paediatric mortality meetings."

By that he was describing the process in 1996. I know that you weren't there in 1996, Dr Gannon, but would you agree that that is a process that you met when you came to the Children's Hospital?

DR GANNON: Very much so. I recall being -- as part of my role as a trainee, we undertake paediatric autopsies with the supervision of a consultant and then you present your findings at the mortality meeting. So that forum did exist. I was a trainee between 1993 and 1998, so I certainly presented cases at a mortality meeting. Whether you could state that all cases were discussed at that, I don't know. I'm not aware that those meetings were minuted.

Q. Sorry, just before we go into that, there's a few things I want to ask you about that: should all paediatric deaths which have a post-mortem be subjected to a paediatric mortality meeting so far as you're concerned?

DR GANNON: All paediatric deaths, whether or not there is

a post-mortem, should be discussed and currently are discussed. We would attend the paediatric mortality meetings and may not be asked to give any presentation because none of the cases had a post-mortem. But the death is still discussed.

Q. Right. Let's deal with those which have had the benefit of a post-mortem. In your experience, in 2000 or thereabouts, what actually happened and how did you have a paediatric mortality meeting?

DR GANNON: There is a secretary -- there's a lead clinician in the Sick Children's Hospital who is appointed as the person who arranges the meeting, who schedules which cases are going to be presented at each meeting, who identifies a clinician to present the clinical findings, and then we would have been e-mailed the information, the list that was going to be presented that month. It's part of the rolling audit calendar in the main hospitals. So it's a regular scheduled event and it wouldn't have been an extraordinary sort of meeting; it would have been a regular event.

Q. So you first get to hear of this by receiving an e-mail that this case that you've been involved in is scheduled for a paediatric mortality meeting whenever it is?

DR GANNON: Yes. I can only talk about when I was appointed in 2003, so that's what we did in 2003. It was

presumably the same in 2000, but we were contacted saying, "This case will be presented on such-and-such a date", and then you'd go along with your -- we'd take photographs of the histological section, micrographs, to present those, we'd have all of our clinical details --

Q. Can I pause you there? Knowing what you know of Lucy's case because you've gone through the histology and reports and so on, assuming you were the pathologist and you're notified that she's going to be discussed at a paediatric mortality meeting, what do you take to present? What would you be presenting at such a meeting?

DR GANNON: I would take the final report and I would take -- we currently now do it, the whole hospital is networked so we can pull up presentations on the system. But essentially you take photographs of your histological findings, if there's any photographs taken at the time of the autopsy, so if there was an abnormal appearance of a structure you would take a picture of that and present that to ... In this infant you may have wanted to take a picture of the brain to show that it was oedematous. You would take photographs of the histology -- the microscope has a camera attachment -- and then you present your pathological findings and sort of summarise your findings and your conclusions.

Q. So you would do that. In other words, everything that you looked at, what you found and what you have concluded from it. What else goes on in relation to a given child in your experience?

DR GANNON: There's a presentation by one of the clinicians who cared for the child. They would give the background, they would give the relevant blood indices, relevant investigations. Then the pathologists would present their findings and then there would be an open discussion about the interpretation of all of the investigations and all of the findings. It does get quite heated at times. It's very open and transparent. Because it's part of the rolling audit, there are no clinics, there are no ward rounds scheduled for that time. All of the clinicians in the hospital have to attend.

Q. So this is preserved time --

DR GANNON: This is reserved time. There is a requirement under appraisal and revalidation regulations that you have to attend at least 70 per cent of audits in your area. So the room is generally full and virtually every specialty grouping is represented and they argue, basically.

Q. In a case such as Lucy, given what you do know about that and some of the things that weren't able to achieve

any definitive conclusion, what are the sort of things that might be of interest and might have been discussed at a presentation like that?

DR GANNON: You may have had discussions about the fluid management. The renal physicians would have got their word in about fluids, the cardiologists would have got their word in about was an echo -- was her a heart function looked at. Basically it is a free-for-all and there is a big discussion about appropriateness of management, ways things could have been improved.

The current organiser, I think, is a Dr Khani(?) and she produces a list of learning points after each case and that is circulated to every attendant as in -- there isn't a decision made as in the care was perfect, the care was sub-optimal, the care was dreadful, it's basically a learning point as in: we need to take more care, to be more accurate in our note taking, dating of our notes. That type of thing.

As it's part of the rolling audit schedule, it's mortality, so children who have died are discussed, but there are also audit presentations and some of those may pertain to various cases as in audits of how well drug forms, drug charts are filled in, how well fluid balance charts are filled in, so they would present audits and then they would discuss those as well.

Q. In a case like Lucy where the treatment that she actually received all happened in the referring hospital and the task, if I can summarise it in that way, of the Children's Hospital was to try and form a view as to firstly what is the condition that she's in, using their superior testing, their CT scans and so forth, and then certify that she is brainstem dead, if that's appropriate, and then form a view as to how she's got into that state. So you might say an investigative role is really the role that the Children's Hospital had. If you've got that role, if in the course of that what you're discussing is the treatment that happened in another hospital, have you got experience of that and what happens in those circumstances?

DR GANNON: I don't know if there's a facility to bring the clinicians from the referring hospital into the mortality meeting to present their side of the case. That would be useful if it existed.

Q. Is there now such a facility?

DR GANNON: Not that I know of. I have been aware -- we discussed one death recently of ... It was an expected death in the community, a palliative -- a child with a life-limiting condition who died following palliative care, and the community paediatrician, who wouldn't normally attend these meetings, came along to present

the aspects of the case. Because we are a regional service, we would often go out to mortality meetings in the other hospitals, so Antrim, Craigavon, Altnagelvin, and the case is discussed there. I am aware in the perinatal age group that the clinicians would hold their own mortality meeting using our report when we are not there and discuss it that way. So I think each hospital has its own system. I'm not too sure how well those systems overlap.

Q. But if you got to the stage where it became clear from the discussions that there were real concerns as to her fluid management in the transferring hospital, so when the action points are drawn up, some of those action points could relate to things that had happened in the Royal, like for example the referral to the coroner, the issuance of the death certificate, the adequacy of the discussions between the pathologists and clinicians, some or all of that might be discussed, but there might also be a very real discussion as to the adequacy, if I can put it that way, or appropriateness of the treatment that she received in the transferring hospital. If such a thing arises, what then happens to assist the transferring hospital who may not appreciate that whatever it was that they engaged in has been seen by the specialist centre at the Children's Hospital to be

deficient or inappropriate in some way?

DR GANNON: I don't know if that exists. That would be much more of a clinical question. I don't know what systems the clinicians have for exchanging information like that.

Q. I understand. Then if I ask you, Professor Lucas, your experience of these sorts of meetings -- and by that I mean the paediatric mortality meetings -- and what happens in the hospitals that you've been involved in where they take place? Sorry, in relation to a case like Lucy's, I should say.

PROFESSOR LUCAS: Most of the cases I have been involved with, which are paediatric, have actually been coronial, so in a sense the inquest does all that, everything that Dr Gannon has been describing, getting witnesses from other hospitals, learning points and so on. It's actually done in a public court. In terms of the ones that derive from consented autopsies, we have meetings in the hospital to discuss them.

Q. Are they of the sort that Dr Gannon has described?

PROFESSOR LUCAS: Yes, yes. There's sufficient representation there to work out what happened and could we have done better or not.

Q. And nowadays --

PROFESSOR LUCAS: In the old days they weren't minuted.

Q. Are they now?

PROFESSOR LUCAS: Increasingly because of the whole audit governance business. That's been a general trend in the last decade.

Q. If I give you the same scenario that I posed to Dr Gannon, which is, in the course of that discussion, it becomes clear or it seems clear that there were inadequacies in the treatment from the transferring or the referring hospital, do you either have those clinicians involved in your meeting or is there some way that you can communicate back so that they are aware of the discussion that you've had?

PROFESSOR LUCAS: Well, they may be aware already because there will probably have been an autopsy report issued and, in all honesty, it should go to the original hospital as well as an interested party so they may be aware of issues coming up. Otherwise, in terms of clinical feedback, I don't think it's legislated down, but in practice it will be the lead clinician where we are who will contact his friends or colleagues in the other place.

Q. And there would be a discussion?

PROFESSOR LUCAS: Yes, but that is left to them.

Q. Thank you. Then I just want to deal with one final area, which is really the aftermath in a way.

Dr O'Hara meets with Lucy's parents on 16 June 2000. It's not his minute of the meeting, but it may indicate some of the points that were covered. Can we pull up 015-006-031? There we are. If I draw your attention to some of these points and ask how you interpret them and what are the implications, if that's what's being discussed. The first is that:

"The cause of death is less frequent than in years past and would not be common."

How do you interpret that? One of the potential causes of death was, of course, bronchopneumonia; would you regard that as being infrequent and not common?

DR GANNON: My personal opinion of that is they're talking about gastroenteritis causing death. Extremely common elsewhere, but not in this country.

PROFESSOR LUCAS: I agree [OVERSPEAKING].

Q. So far as you can tell, it seems like gastroenteritis. Then if I ask you:

"Dehydration was an important factor."

How do you interpret the significance of that being communicated to the family?

DR GANNON: I think that's as stated, that she was dehydrated. The rehydration is what has probably ultimately caused the death, but she wouldn't have needed rehydration had she not been dehydrated, so it

was important.

Q. But the rehydration would have been significant in your view from what you now know about the case?

DR GANNON: Yes.

Q. We don't know whether it was discussed, but is that something that you would think would have been appropriate to have been discussed?

DR GANNON: Had it been known about at the time -- it's a very complex area and well beyond my area of expertise about the amount of fluid, the type of fluid, the speed at which the fluid was replaced. All of that needs to be taken into consideration.

THE CHAIRMAN: I think the problem is, doctor, that it wasn't know at the time because Dr Crean in the Royal rang Dr O'Donohoe in the Erne to tell him that there were issues about the fluid regime. So there were issues raised in the Royal, before Lucy's actual death, about the fluid regime, which on the face of this note, were not discussed with Mr and Mrs Crawford.

DR GANNON: But it's not the remit of a pathologist -- hyponatraemia is not a pathological diagnosis.

THE CHAIRMAN: But it raises a slightly different issue then about who should be meeting the parents to discuss what happened because --

DR GANNON: Precisely. The parents --

THE CHAIRMAN: It might be very helpful for Dr O'Hara to be one of the people who meets the Crawfords, but he shouldn't be there without a clinician, should he?

DR GANNON: I have met with quite a number of parents after a post-mortem and there is a clinician present -- has been a clinician present in all cases. It may be that the parents had a very specific question about the post-mortem process.

MS ANYADIKE-DANES: The benefit of having the clinician present is you can do precisely the thing that you have both been talking about: you can present both sides of the issue --

DR GANNON: Yes.

Q. -- her clinical treatment and the pathological findings.

DR GANNON: Yes.

PROFESSOR LUCAS: Can I just interject to make sure we're all on the same page? I think from reading this page here, we would all agree that at the time of that conversation, hyponatraemia did not feature on Dr O'Hara's radar as being significant in this case, so it wasn't brought up. So if you're not going to think that, you won't think about the rehydration either.

Q. Can we go to another bullet:

"Children can crash very quickly due to dehydration and delay in getting in fluids could be crucial"?

If I give you some context to that. There was a query over the three hours or so it took before they were able to get a line into Lucy and therefore any fluids. If the pathologist, or even a clinician, is indicating that delay in getting in fluids could be crucial, it's not too much of a stretch to think it would have been better for that to have got in sooner and that may raise a query as to whether there are any concerns over her treatment. Is that a possible conclusion from that?

DR GANNON: It's a possible interpretation. From a pathologist's point of view, I would tend not to be commenting to families about the treatment the patient received. That is why we have a clinician present with us at the time because it's commenting on areas outside my expertise.

Q. But if any clinician or the pathologist is raising the question that something about the treatment -- rehydration is really what they're talking about there -- has been delayed in such a way as could be described as crucial, does that not indicate that that might be something that could have been drawn to the attention of the coroner? Because essentially you're talking about her treatment.

DR GANNON: It's difficult to answer. Again, it depends on

the pathologist's interpretation of the clinical history and information given to him and the weighting put on different factors in that. From my understanding, at the time of presentation, Lucy was still able to drink juice. And if children are drinking orally, intravenous fluids may or may not be required, but again it would need a clinical interpretation.

Q. Yes. I wasn't talking about her actual treatment, I was talking about the way it's framed there. If for whatever reason a clinician or pathologist has come to the view that a delay in treating the child is crucial or could have been crucial, is that not some matter which needs further investigation to see whether indeed that is the case?

DR GANNON: Potentially, yes, but the way that's worded is hypothetical, it's it "could be crucial", not "it is crucial". There's a difference.

Q. Yes. If we go on to the next time that Dr O'Hara discusses the case, it's before he produces his final report. It's something I showed you just very briefly. 23 October 2003 is the letter. It's 013-053f-296. But just before I ask you both about that, I realise I hadn't asked you, Professor Lucas.

If you were looking at that list of issues and the ones that I've drawn your attention to, is there

anything there that you might have said as a pathologist "Well, if I do think that that delay could have been crucial, maybe I ought to be going back either to have some further investigation of whether in fact it was crucial, since I haven't been able to reach a concluded view of the cause of her death", or perhaps, "I should be telling the coroner"?

PROFESSOR LUCAS: Yes. This is very easy in retrospect. At the time it's more difficult, I suspect, because we don't know what Dr O'Hara was actually thinking. As far as we can establish so far, he was probably thinking: we still have sort of brain oedema and we do have some pneumonia, but I really can't join anything together at all. He just didn't know. This is all slightly sort of generalised, isn't it, and coulds and possibles and so on.

Q. Is that not indicating that some further investigation is required?

PROFESSOR LUCAS: Yes.

Q. And if he's not doing it as a pathologist, does that not indicate that maybe the coroner ought to be looking at it?

PROFESSOR LUCAS: Maybe the coroner or maybe one consults with one's clinical colleagues to have a further think about it.

Q. But something further?

PROFESSOR LUCAS: Yes.

Q. Would that summarise your view, that at this stage something further ought to have been done?

PROFESSOR LUCAS: Yes. You haven't asked the question, but I can just pose it hypothetically. When the clinicians got his intermediate June 2000 report, what did they think about it? Did they thing, "We're talking about different children, this isn't right", or what? We have had no feedback on that, have we?

Q. We do because Dr Hanrahan, the consultant, his view is that he didn't see it as answering his problem, he did not believe that there was that level of bronchopneumonia --

PROFESSOR LUCAS: Okay, fine, sorry, you have addressed the point. I'm interested to see what the interaction might have been so to speak. But in fact it turned out to be a paper exercise; he just sent off another bit of paper instead.

Q. In fact there was one point that he did come up with that you might be able to help us with. He thought, to the extent that there was anything that one could see present in Lucy's lungs, the cause of that -- he didn't think that that was ventilator-associated pneumonia, he didn't think that. He thought it might have been

produced by her ingesting vomit.

PROFESSOR LUCAS: Yes.

Q. Do you think that's possible?

PROFESSOR LUCAS: I think it's very possible. It's also what Dr O'Hara said in his summary as the other -- he said there are two ways that bronchopneumonia could have happened. One is community-acquired, possibly before she was admitted to any hospital. Secondly, at about the time of the collapse and seizure and therefore intubation -- and I don't know whether he used the term aspirated, but he certainly meant that -- "This could be an aspiration pneumonia". We discussed this about an hour ago.

Q. I'm not sure I did ask you that. In your view, of the two forms of producing that bronchopneumonia, do you have one which you think is more likely than the other?

PROFESSOR LUCAS: I think something happening at about the time of intubation. I think it was a very rapid process and I think it happened because some gastric contents went in, and also it's been slightly -- we haven't explored the question, but all this microbiology was negative. All the microbiology tests were negative. Now I know it was only swabs rather than chunks, but that might tie it in because if you aspirate acid from

the stomach you get a pneumonia process, but there are no bugs by and large -- there might be some, but not necessarily -- which could explain the negative microbiology. But if it was a community-acquired pneumonia and the child had not had any antibiotics, so it's clean, and (a) he didn't see any bugs on Gram stains, because apparently that was done, and (b) the culture was -- and the culture should have actually probably identified the common thing like streptococcus pneumoniae or some related organism, so it does actually suggest that it may have been an aspiration pneumonitis, aspiration pneumonia.

Q. Dr Gannon, would you accept that it might suggest that?

DR GANNON: It might suggest that. There is a pneumonia there and it's very difficult to determine exactly when it became established and what the original cause was. All we can do is to say there is a pneumonia present and you have to correlate that with the clinical findings and in very small children that is often extremely difficult because there are no clinical findings.

Q. If we pull this letter up, 013-053f-296. If we look at the second paragraph of that:

"This was a difficult case at the time in which it was clear there was a potential background of litigation."

Professor Lucas, if you were dealing with a case and you'd formed the view at the time that there was a potential background of litigation, is that a matter that would cause you to contact the coroner if you'd formed that view?

PROFESSOR LUCAS: Yes, because it becomes a mishap in hospital or something unnatural and it comes under the general coroner's remit, cases to be reported to, yes.

Q. Dr Gannon, if you'd formed that view, is that something that would cause you to contact the coroner?

DR GANNON: I think on the whole, yes. However, we have a lot of litigious families and you may have a case that is entirely natural who had a perfectly natural disease process and a natural cause of death and the family are still going to litigate. In those cases I don't think it is appropriate -- referral to the coroner is advisable on the grounds that the coroner is not there to adjudicate between families and the hospital in natural death.

Q. No. But if you look at what Dr O'Hara goes on to say at the top of the second page:

"That there may be a case for litigation in this instance, however, is entirely understandable."

So this doesn't seem to be a case where he is saying that's just an overly litigious family; he is

recognising that there may be a basis why they might take that line. So if you formed that view, is that something you think would cause you to contact the coroner?

DR GANNON: At the time, if I had been in full knowledge of the background to this case, of the difference in opinion between the clinicians in the Royal and the clinicians in the previous hospital about the fluids that had been given, then yes, at the time. I don't know how much information Dr O'Hara had at the time he carried out the autopsy to allow him to refer it to the coroner.

Q. No, none of us do. What I'm putting to you is he appears to have formed a view that there is a potential background of litigation and he can quite understand why litigation might be an issue. So I'm saying, if you have formed that view, is that not something that should cause you to contact the coroner?

DR GANNON: But he has formed that view three years after the original case took place.

PROFESSOR LUCAS: By which time the coroner owns it anyway.

Q. Well, I think he says "at the time in which it was clear", but anyway, leaving that aside. If you formed the view, then it goes to the coroner?

DR GANNON: On the whole, yes.

Q. Thank you. Well, I think you have addressed some of the other difficulties in trying to weigh up whether that should have prominence, if I can put it that way, whether it's the pneumonia or the hyponatraemia.

Am I understanding what you have told the inquiry so far today is that -- sorry, Dr Gannon, I'm addressing it to you -- there actually isn't a basis from what you saw in Dr O'Hara's work to be able to allow you to say one was more likely than the other, or have you seen something that would allow you to say one was more likely than the other as a cause?

DR GANNON: As regards the hyponatraemia?

Q. As between the hyponatraemia and the bronchopneumonia.

DR GANNON: No. I think Dr O'Hara has approached this from a purely pathological point of view and said, "This is what I have seen under the microscope", and it's up to the clinicians then to interpret those findings based on their understanding of the clinical background.

I believe that in the file there were several publications from papers that he had obtained. He was obviously looking at other causes of hyponatraemia that may have occurred in this infant, such as syndrome of inappropriate ADH secretion, hypoxia causing cerebral oedema, so he's obviously thinking around the case at this point rather than saying it was wholly 100 per cent

due to the fluid replacement. He hasn't gone into detail about that, but I believe having those papers in the file suggests he was thinking more in depth about the case.

Q. I think, Professor Lucas, you have actually looked at the case not just from a pure consideration of the histopathology, but thought about it in the context of the clinical information that you've got. Is that additional information that allows you to express the view that it was more likely hyponatraemia than the bronchopneumonia?

PROFESSOR LUCAS: Yes.

Q. Then just finally --

PROFESSOR LUCAS: Can I just say, dealing with Dr O'Hara's letter of 23 October, I think it's worth pointing out that paragraph 3 is essentially what you write when you realise that you might not have grasped the entire case the first time round and want to change your mind. That's how you phrase it.

Q. Yes. I'm just going to ask you to comment on the differences between the commentary in his 2000 report and that in his 2003 report. Maybe you can help, Dr Gannon, with this. Dr O'Hara didn't look at anything further in terms of slides, X-rays and so forth between his 2000 report and his 2003 report.

DR GANNON: He doesn't appear to have done other than the publications and references that he obtained.

Q. I believe it was correct that he received a copy of Dr Sumner's report so he would have Dr Sumner's views on that what happened.

DR GANNON: Yes.

Q. But apart from that, he's seen nothing himself from the histology.

DR GANNON: No.

Q. If we pull up 142-001-002 and alongside that pull up 013-017-064. I'm trying to see if we can encapsulate the parts where he discusses this.

THE CHAIRMAN: Sorry, has Professor Lucas not effectively just covered the point in advance by saying that, by this time, he has seen Dr Sumner's report and he's now, for the first time, alert to the wider debate about what went wrong, which is why, as Professor Lucas pointed out in his main paragraph in the letter of 23 October 2003 is a different emphasis and different presentation because he has more information?

MS ANYADIKE-DANES: Yes, it is, but I was going to actually point out something that wasn't present in the earlier commentary. If you see it, it's the last sentence of the first paragraph. The earliest part of that is simply a recitation of the findings. But then that last

sentence says:

"It was known that during her admission to the Erne, she had been, at least for a short period of time, dehydrated and hyponatraemic."

So you start to see that introduced much earlier than you do in the other report. But that is simply -- that comes from looking at her notes, does it not, because even from the request for autopsy -- because that information is there.

DR GANNON: It is there. Whether this was emphasised to him at the time he originally undertook the autopsy or if it was subsequently pointed out that this was clinically relevant or clinically significant or was an area of interest, which is why maybe it's specifically mentioned now. When we retrospectively turn a consented autopsy report into a coronial case, the coroner asks us to specifically put down the cause of death as we would do it in the ONS criteria, so 1A, 1B, 1C, and provide a commentary that's going to be submitted as our evidence in the hearing in the inquest. So the subsequent report is basically his formulation of cause of death and my personal interpretation of that is that he's done that under protest and then the commentary is submitted as his evidence at the inquest.

Q. He's done it under protest?

DR GANNON: Dr O'Hara would have known that cerebral oedema is not a cause of death. He would have known full well that that was not appropriate. What he's saying I think -- and this is purely my own personal opinion having known Dr O'Hara -- is that he has decided that it is a clinical responsibility to provide a cause of death, not a pathology responsibility, that he cannot make the diagnosis of hyponatraemia, that the hyponatraemia diagnosis is made by the clinicians and therefore it is up to them to provide the cause of death. He would have known that cerebral oedema was not sufficient. He's done that deliberately.

Q. Thank you. The coroner has expressed a view as to what he would have liked to happen insofar as Dr O'Hara -- we see it at 013-052-280. The background to this letter is he's trying to see if he's functus officio or not and whether he can conduct an inquest into Lucy, but that's not the reason I'm taking you to this; it's because of what he deals with here. He says, I think it's the next page, 281, right at the top:

"Whilst he does not give a formal cause of death, his findings point to hyponatraemia as being implicated."

If you see the date, it's 30 April, so he is reaching this view from Dr O'Hara's June 2000 report:

"In my view, Dr O'Hara should have contacted me on completion of the post-mortem examination and suggested that it be converted into a coroner's case."

Can you see why the coroner has that view, Dr Gannon?

DR GANNON: I can see why he has that view. At the time I think that Dr O'Hara of the same opinion. He was looking for a natural cause of death and found what he considered to be a suitable natural cause of death.

Q. Why was he looking for a natural cause of death?

DR GANNON: Because that's what we do when we do an autopsy; we look for a cause of death and he found a disease process which, in his opinion, would have been sufficient to have caused death which was a natural cause of death.

Q. I thought I heard you to say he was looking for a natural cause of death.

DR GANNON: He was looking for a cause of death and he found a natural disease process which would have been sufficient to have caused death.

Q. Professor Lucas?

PROFESSOR LUCAS: Well, yes, that is what pathologists try and do. They find -- they want to find -- and ideally --

Q. What are they trying to do? Are they trying to find --

I beg your pardon. Are they trying to find the cause of death or trying to see if there's a natural cause of death?

PROFESSOR LUCAS: Well it's both. You want to see what the cause of death is and see if it's natural. There will be a bias to finding a natural cause of death because that's always more -- what's the word? -- more convenient.

THE CHAIRMAN: Probably because that's mostly what happened?

PROFESSOR LUCAS: Thank you, Mr O'Hara. That's mostly what happens.

THE CHAIRMAN: Most people die naturally.

PROFESSOR LUCAS: Yes, they do.

THE CHAIRMAN: But the twist is that you don't just go to find any natural cause of death which might fit, you have to be sufficiently satisfied that the natural cause of death which you have identified applies with that particular child.

PROFESSOR LUCAS: That's correct for that particular case. This has been a -- and you encapsulated it very well -- particular bugbear of the coronial system, which kind of short-circuits things a bit. Here we are talking about a consented case where one would have thought, just as a matter of principle, that things would be gone into in even more detail because that is what the consented

autopsy is for.

MS ANYADIKE-DANES: Can I put this very final question to both of you? Given how the matter was left on the face of Dr O'Hara's June 2000 report, in other words he's not able to assist in giving a definitive cause of death, can't resolve that problem or resolve all those clinical queries that come to him on the request for autopsy, are you surprised that nothing at the Children's Hospital is done further about trying to identify how and why Lucy died? Dr Gannon?

DR GANNON: I would have expected the clinicians to have come back to Dr O'Hara and had more discussions about the findings and what they would consider the relevant clinical information and come to a consensus diagnosis. It does seem to have kind of stopped in mid-air and not actually gone any further. That would have been an issue. Having said that, we have had cases that were retrospectively turned into coronial cases and it was always the clinician that contacted the coroner directly. So I'm assuming that Dr O'Hara would have thought that the clinicians may have turned it into a coroner's case. That's what normally would happen or in my experience that's what normally happens is that the clinician, on reading the post-mortem report or actually being present at the time of the post-mortem,

has said, "We need to phone the coroner about this one", and it's the clinician's duty that's done(?) that.

Q. And Professor Lucas, in your experience, are you surprised that matters seem to have rested where they were?

PROFESSOR LUCAS: Yes, I am, because we know what happened, we know that after the June 2000 report, by this time a death certificate had been issued, which was more or less correct, given some bits here or there. You'd have thought that the clinicians had gone back to the pathologist and said, "Hang on, this doesn't really add up", he'd have looked at it and issued another one, an addendum, as a follow-up, to say, "Forget the previous version; this is what we now think actually happened", then other decisions could be made about referring to the coroner and so on. So it is odd that there is a gap, that there seemed to be no review at the clinicopathological level instituted, in a way, by the clinicians who must have been very puzzled when they received the report of 2000.

MS ANYADIKE-DANES: I don't have any other questions.

THE CHAIRMAN: Unless either of you has anything further to add, you're free to leave. Thank you. You have covered all the ground you want to cover?

PROFESSOR LUCAS: I think so, yes.

THE CHAIRMAN: Thank you very much indeed. We'll take a break for 10 minutes and tidy up some bits and pieces before we finish for the day.

(The witnesses withdrew)

(1.55 pm)

(A short break)

(2.10 pm)

THE CHAIRMAN: Mr Stitt, can we take up where we left off yesterday?

MR STITT: Yes, I can, Mr Chairman. Dealing, if I may, firstly with the additional documents. We were focusing on the notes and the records that were compiled in handwriting.

THE CHAIRMAN: Yes.

MR STITT: Enquiries have been made from both Sister Little and Margaret Doherty. What we are proposing to do is to submit a letter to the inquiry tomorrow, setting out and answering the questions which were raised yesterday, so it's there as a matter of record. Also, Margaret Doherty has referred to pagination. My copy of the bundle is not paginated, so we feel for the avoidance of any doubt that the paginated copy should accompany the letter. It'll be the same documents, just with the relevant pagination, just in case my bundle is perhaps out of sequence or something.

THE CHAIRMAN: When you're talking about pagination, do you mean the inquiry's pagination?

MR STITT: No, this is the internal pagination, about 18 pages. She would wish to refer to pages 11 to 14, for instance, and I would just want to make sure the inquiry is not in any way confused or misled by what she's saying, although it is fairly straightforward, there's no great magic to it.

THE CHAIRMAN: It might not be feasible to do this for tomorrow, but could we have a typed transcript of the notes, which would involve Sister Little and Mrs Doherty effectively dictating what's in the handwritten forms so there's no query later on about what an abbreviation means or whatever?

MR STITT: Yes, that can be organised. Mrs Doherty retired in 2003, but there's no reason why she could not come into some office in Altnagelvin and use the facilities.

THE CHAIRMAN: I think most of it is clear, but we had a doubt yesterday about one or two words which were faded. While we have copies, do you have originals of these notes?

MR STITT: I don't.

THE CHAIRMAN: The hospital does?

MR STITT: We have got originals of hospital notes, yes.

THE CHAIRMAN: These handwritten notes, does the Trust have

the originals of the handwritten versions?

MR STITT: Yes. Those are the documents which were -- I'm sorry, what you have is what was found.

THE CHAIRMAN: What we have is a copy of what was found on the file?

MR STITT: The only documents which are known to be in existence that came out of the brown file that I referred to yesterday are those copies which have been photocopied, hence some are paler than others; the actual original documents in the file have been secured. Now, whether they're original documents, which I suppose some of them might be -- the handwritten could be -- but the notes clearly -- the clinical notes aren't, they'll just be photocopies of the hospital notes.

THE CHAIRMAN: Okay. Well, could I ask you -- in the letter which comes to us tomorrow, we'd like to know how Sister Little came to write her five-page note.

MR STITT: Yes, that's one of the enquiries we've made.

THE CHAIRMAN: We'd like to know whether she had any managerial or supervisory role at that time. We'd like confirmation of whether she was gathering information for Mrs Doherty. And I think Mr Quinn raised a point that it would be helpful to know why the nurses were looking at the fluid records because there are references in these notes which seem to point in that

direction. Okay?

MR STITT: Those five points have been noted.

THE CHAIRMAN: Thank you very much indeed.

MR QUINN: Mr Chairman, for our part we should make number six. We would like to know about the sharing and the distribution of this record, with whom it was shared and who it was sent to. Obviously, it was made for a reason. It looks as though, on the face of it, and I comment no further, that it was made as part of an investigation. So who, as it were, asked for the investigation and who received the investigation records or notes or whatever was made arising out of that investigation?

THE CHAIRMAN: Okay. If that could be covered too, Mr Stitt.

MR STITT: We'll do our best to answer that. I won't speculate, but we can do our best to answer that, and we'll ask those questions of the two witnesses.

THE CHAIRMAN: The more information we have about this in the very near future, the more we'll know whether it's necessary to recall any witnesses or whether it's necessary to probe further beyond the notes.

MR STITT: Yes. All those points have been noted and will be dealt with. And everything will be dealt with by tomorrow with the exception, possibly, of the typed

version of the notes, although that might be possible to achieve.

THE CHAIRMAN: Okay, thank you. Was there anything else that you wanted to deal with?

MR STITT: I wanted to address you, sir, in relation to the outstanding statements. The position is that I indicated yesterday that there were three persons from whom we had not received an acknowledgment. What we did was we e-mailed to them a copy of the relevant portion of the transcript where you made it clear that this was a matter of importance and the steps which you might have to consider where there was no response, so each of the three have received that.

We have received an e-mail from Dr Martin, and hopefully he will be in a position to comply with your direction. We can no do more than inform him as clearly as possible as to the time limits and your views.

THE CHAIRMAN: Just remind me, was Dr Martin the paediatric lead at the time?

MR STITT: Dr Martin was the clinical director of women's and children's services at Altnagelvin.

THE CHAIRMAN: Yes.

MR STITT: Mrs Dunn we have been unable to make contact with. We tried to telephone her, we left a message on her landline. We're not aware if she has a mobile.

I don't believe that she's on e-mail. But every effort is being made.

Mr Gilliland has telephoned to say that he appreciates the importance of the timeline. Apparently, he did ask at an earlier stage for an extension, but that wasn't looked on too favourably. He has indicated that he is working nights this week, which will give him time during the day to complete the statement, so he's well aware of your position.

THE CHAIRMAN: Good, thank you.

MR STITT: And the final point. Dr McCord, I believe you have some information that you have received about that.

THE CHAIRMAN: I do, and if I could have that by Friday lunchtime, in the circumstances which have been described to me, that's fine.

There's no further business on that, Mr Quinn?

MR QUINN: There's just one point, sir. On the pagination that Mr Stitt mentioned earlier, in the bundle that I have, which is headed with the letter from the Directorate of Legal Services, my pagination runs at 316-085-001 through to 027. If that pagination were perhaps kept in the same order, that would mean everyone would be holding the same paginated bundle and we could all see where this is going.

MR STITT: I'm dealing with my own copy and it doesn't have anything ...

THE CHAIRMAN: Sorry, what happens, Mr Stitt, is when we received the documents and distributed them, we put an inquiry pagination on them. If we can get you an inquiry-paginated copy, that might help.

MR STITT: If they could be e-mailed to the DLS.

THE CHAIRMAN: Yes.

MR STITT: And we will then ensure that -- it's much better to keep the same uniform pagination, of course.

THE CHAIRMAN: Yes. And if there is anything that is out of order, please let us know, because I'm not entirely sure from the copy I have that everything is necessarily in order. But if anything is out of order, we can be told that. Okay?

MR STITT: Yes.

CHAIRMAN'S ADDRESS RE FUTURE HEARINGS

THE CHAIRMAN: Apart from the discussion which is going on between Dr Haynes and Professor Young in relation to Lucy, which is about what her possible lowest sodium reading was, I think we have concluded this segment of the inquiry.

About three weeks ago, I announced the programme for the autumn. Since I did that, I have received some contact through Mr Canavan, solicitor on behalf of the

Mitchell family, and I now understand that neither Conor's mother nor grandmother intends to attend the inquiry, and instead they've left it to the inquiry to continue to cover areas which we feel to be appropriate.

This has led me to reconsider how to integrate into the autumn schedule the issue about the 2002 hyponatraemia guidelines and their implementation, and this issue is important because it is an illustration of governance at the level of the Trust and the department; it is also a comparatively recent illustration in that it relates to events in 2002/2003.

In addition to that, we have already touched upon many areas of governance in the evidence which has been given to the inquiry, both in writing and in the hearings here in Banbridge. That being the case, I have thought it appropriate to reconsider which of the issues on the published list of issues remains significant and to develop a plan to explore those issues in the final segment of the hearings in the autumn.

In doing this, I have been especially conscious of the focus of the families beyond the deaths of their children. That focus is on how they can be reassured that what went wrong before will not be repeated. As I understand it, each of the families accepts the inevitability that mistakes are made in the health

system as they are made in every other system. What they do not accept is the failure or the refusal of individuals and public bodies to acknowledge those mistakes and to learn from them. My guess is that the general public might share exactly the same interest.

Throughout the public hearings, evidence has been given which could only cause concern to anyone who has heard or followed that evidence. There has been evidence of a dominant culture of keeping quiet about mistakes which were made, even when those mistakes led to the deaths of children. This has been put in different ways by different witnesses. For instance, Dr Carson said that as recently as 2000 it was common for the National Health Service to advertise its successes but not its failures. Dr Crean put it more bluntly when he said, metaphorically speaking, that doctors feared they would be shot for putting their heads above the parapet. Within the last week, Dr MacFaul and Professor Scally have added their observations on this theme.

Against that, I have been told many times that the picture has changed dramatically and for the better in the last decade. I have been told that clinical governance has developed to a degree which was unrecognisable. The suggestion is that there is now

mandatory reporting of adverse incidents, that lessons are being learned and that there is a greater willingness to report doctors to the GMC. There is also said to be more reporting of deaths to coroners. It is also clear that in the specific area of hyponatraemia, guidelines were developed, perhaps on foot of Altnagelvin Hospital reporting Raychel's death to the department, and that those guidelines have been reviewed and updated on foot of the review by the RQIA.

It is not my function to try to re-organise the National Health Service, nor am I capable of doing so. Instead, what I have to do beyond scrutinising the specific events which have been put under the spotlight so far is to investigate how the systems and procedures of statutory and public bodies have improved in the last decade. This will involve examining whether the culture which I have just referred to is still prevalent. I will then make recommendations about what might be done better and/or differently in future.

Against this background, I have reviewed the list of issues and have decided, subject to any submissions or suggestions from interested parties, to focus the autumn hearings on the specific areas which have been set out in the notes which have just been distributed to you in the last 15 minutes. I will turn to those specific

headings in a moment.

The autumn hearings will give an opportunity to the people who run the National Health Service, as it has been reorganised in recent years, to demonstrate why it is that the events which we have examined couldn't happen again or are far less likely to happen again. Those people will include doctors, nurses, trust managers and departmental and other public officials. I will be particularly interested to hear if any lessons have been learned already from the evidence as it has emerged at the inquiry and whether any changes have been put in place. It would be disappointing if the relevant people with power and influence were simply waiting for my report and recommendations to the minister before improving the service in areas which have already been scrutinised.

In light of this reappraisal of the way forward, I intend to change once again, I'm afraid, the autumn schedule. The remaining elements of the governance in Raychel's case, which we didn't touch upon or develop to their fullest extent in the clinical hearing, will be dealt with as already announced from Tuesday 27 August. And as I've said before, we will sit from Tuesday to Friday that week; we will sit from Monday to Wednesday of the following week. At the moment, it's unclear,

particularly in light of the latest evidence, whether we will need to go into a third week or whether sitting on the Friday of the second week would finish off the governance hearing for Raychel. I can decide that when I get a clearer picture over the summer after we've had time to consider the witness statements which are coming in this week, as you've just been hearing.

After that two or perhaps three-week period dealing with Raychel governance, I will include the implementation of guidelines and Conor's important contribution as part of the overall governance section. That being so, there will be no hearings in the weeks commencing 9 and 16 September. You'll remember that I said a few weeks ago that we would deal with Conor at that point. Instead, the final governance section, including Conor and the role of the department, will start in early October on a date which I will confirm as soon as possible.

What I intend now to do in Conor's case, in light of what I've heard from the family, is to obtain from an expert a review of the nursing and medical records for the purpose of seeing how they comply with the hyponatraemia guidelines which had been issued in 2000. When that report is received, it will be forwarded to what I think is now the Southern Trust, the successor to

Craigavon. I will forward it to the Southern Trust so that the Trust can indicate the extent to which it accepts or rejects that report. I will then arrange to call some witnesses who were involved in Craigavon in 2003, but it is the overall idea now that the Conor segment might probably be dealt with in one week rather than two, in the autumn, in early October.

If you would look for a moment at the three pages which were distributed a few minutes ago, you will see issues which are familiar to you. If you look at the page which is headed "Chief Medical Officer and Hyponatraemia Guidelines", I think the four issues on that page are self-explanatory. There has been a query raised a number of times about what the then Chief Medical Officer and her senior officials knew about the deaths of Adam, Claire and Lucy before Raychel's death was referred to them. We want to explore what led to the establishment of the working party which prepared the guidelines and whether it was only the report of Raychel's death or whether there was also other information.

I need to hear from Dr Henrietta Campbell, who was the Chief Medical Officer in 2004, to understand why she said publicly what she did say about the deaths of the children with whom the inquiry is concerned. And under

the fourth heading, using Conor's case as an illustration, we want to look at how the 2002 guidelines were disseminated and how their implementation was monitored and enforced. This is relevant because we've heard from time to time over the last year of evidence that there is a concern about how best to disseminate and enforce various protocols, guidelines and new sources of learning.

So I hope that that page is pretty much self-explanatory. I'll invite you now to turn to the page headed "Actions of Doctors, Nurses and Trusts". What we're looking at here are the areas which have been raised in evidence generally over the last year. Has there been an increase in reports of serious adverse incidents? How effectively are such incidents now reviewed? For instance, are the families now inevitably or regularly involved? Are there more reports to the GMC? And so on, ending with the last point, which is that if there is now more reporting, what has brought about this change? A series of witnesses have touched on that. We will seek over the summer to obtain information from people like the GMC, the Nursing and Midwifery Council, and we'll seek information through the DLS from the trusts about how serious adverse incidents are now investigated.

Then I turn to the third page, which is responsibility for quality of care. I think the first issue is about who was responsible for the quality of care from the point when trusts were established in the early to mid-1990s until 2003. I think, in fact, even this week we've heard more evidence about that from Professor Scally yesterday and we've heard in the recent weeks from Dr Carson, Mr Mills and the Western Health Board witnesses. But to the extent that there were issues before 2003, I'm concerned to find out how the department actually knew what was going on in hospitals prior to that time and then, since 2003, have the trusts exercised their statutory duty to provide quality of care, who have they been answerable to and how has that reporting worked?

The final three segments on the page are really for development by the department and by the Belfast Trust in a way which I will explain now. I have heard it said a number of times in this inquiry that the trusts in particular, and I think also the department, are anxious to reassure everyone that lessons have been learned, that the Health Service has improved and that things are much different now in 2013. As a way of testing that, we will invite the Belfast Trust and the department to, each of them, present a paper to the inquiry by the end

of the summer in which they set out what the current systems are and why they're significantly better than the systems which have left us rather concerned and unhappy over the last year.

After we have then heard in the autumn from people like Dr Campbell and people who were involved with Conor's case and the dissemination of the guidelines, I intend that the final few days of the public hearings in the autumn will be used to allow senior representatives from the Belfast Trust and from the department to come to the inquiry to explain and stand over the paper which they present to us at the end of the summer. In a sense, what we will be doing is using that partly as a probing exercise on our part, but partly as a public seminar at which people like the Permanent Secretary, the Chief Medical Officer, perhaps the medical director of the Belfast Trust indicate what lessons have been learned and how things are better.

We've already heard in this part, particularly through Dr McBride and the witnesses who gave evidence about what happened in 2004 when Claire's case was referred for the first time by Mr and Mrs Roberts to the Royal, and we have some indication of what changes had already taken place in 2004. But we want to hear from Dr McBride, who has now moved, as you know, from the

Royal to being the Chief Medical Officer, and from other people, as to how that has developed since then so that to the extent that public confidence might have taken a bit of a battering, it might be in some way restored.

It might also be that we use those final days of the hearing to look at ways in which things might be improved better still and what is potentially coming from across the water in England and Wales. For instance, many of you will know that in the back of the Mid Staffs report there is a debate at the moment about introducing a statutory duty of candour. We will explore in particular, I think with the departmental witnesses, about the extent to which what is happening in England and Wales might be brought over to Northern Ireland.

So the purpose of outlining this is to give you a clear idea of what will happen in the autumn, save for, perhaps inevitably, giving you a date on which that will happen, but I'll do that as soon as I can. I also need to explain that this revised way forward, which I've prepared over the last few days, I will now share with the inquiry's advisers. They haven't seen it yet and their views will be taken into account before I absolutely finalise the way forward. I will also take into account any views and suggestions which the parties

in the chamber today have to make.

I hope this isn't a controversial line that I'm taking -- I don't think it is -- but if anybody has any particular views or suggestions, it would be helpful if we could have responses within the next fortnight.

Beyond that, is there anything that anyone wants to raise from the floor today?

Then beyond that, ladies and gentlemen, thank you for your support and contributions over this last segment from the end of May. We'll see you on Tuesday 27 August, and we can all go and read Mr Doherty's new book between now and then. Thank you very much.

(2.35 pm)

(The hearing adjourned until Tuesday 27 August)

I N D E X