Friday, 1 February 2013

(10.30 am)

(Delay in proceedings)

(10.45 am)

THE CHAIRMAN: Good morning, ladies and gentlemen. Thank you for waiting. As you know, we have essentially finished the evidence in the investigations we've been conducting into the treatment and deaths of Adam Strain and Claire Roberts. Today marks the opening sequence in the public hearings aspect of the investigation into the treatment and death of Raychel Ferguson in 2001.

Ms Anyadike-Danes is going to present an oral summary of the written opening of the inquiry team, which has been circulated. Mr Quinn, I think, is then going to make an opening on behalf of the Ferguson family. I don't think we've been notified of any other openings that anyone intends to make.

Just before we hear those openings, let me make two points. The first is that we have received a further statement from Mr Gilliland of Altnagelvin. That is largely a response to the criticisms which have been made of him by an inquiry expert, Mr Foster. We have, at the moment, received an unsigned statement and I think, Mr Stitt, that it has been indicated to us that, as soon as is possible, we will receive a signed

statement, which will be the one which is circulated to all the parties.

MR STITT: Yes, of course sir. We thought it important at the outset to ensure that the inquiry had his thoughts in writing and then, of course, we will perfect it.

THE CHAIRMAN: That's fine. I don't have a difficulty with that, and I should say that that statement was provided in accordance with the amended procedure, which is that no witness can volunteer a statement without receiving the inquiry's consent. That procedure was followed and I'm quite content with that. But it is important that before the evidence starts on Tuesday that the parties have a chance to see that statement. So if it could possibly be forwarded to us in its signed version either this afternoon or, at worst, first thing on Monday so it can be circulated because Mr Quinn for the family hasn't seen it and he needs to.

I understand that the Trust has also instructed an independent expert called Mr Orr.

MR STITT: That's correct.

THE CHAIRMAN: I understand his report might well be through later on today.

MR STITT: Yes. In relation to the first of those two points, sir, I see no reason why the Gilliland report

cannot be signed and served on all parties today. I agree, with respect, that it is important that everybody has the opportunity before the evidence begins on Tuesday to consider Mr Gilliland's response. I will also take instructions in relation to the Orr report.

THE CHAIRMAN: Thank you very much indeed.

Ms Anyadike-Danes?

Opening submissions by MS ANYADIKE-DANES

MS ANYADIKE-DANES: Good morning, Mr Chairman. Good morning, everyone.

I should first pay special thanks to my juniors who have very much assisted me in providing the written opening that was circulated about a week ago. These things aren't possible without a team and I'm very fortunate to have a good one.

Raychel Ferguson was born on 4 February 1992. She was one of four children and her family's only daughter. At the time when we start to consider her case, she was a primary five pupil at St Patrick's Primary School in Derry. Her mother describes her as:

"A very popular girl, who was caring and helpful to her many friends."

So that is the child. And you will hear much more about her, I'm sure, in the opening that my learned friend Mr Quinn will give, who is senior counsel for the

family. So that's a matter that he will address and I don't propose to talk very much about her as a child. But I just wanted to start like that because, although we will fairly quickly get into technical matters of treatment and the implications and consequences of it, of course, all that was happening to this daughter of the Ferguson family.

There is an awful lot of material -- and I'm sure you're aware of it -- to try and distil and present to get an account of what happened so that you, Mr Chairman, can form a view as to what ought to have happened and what are the implications of those things that did happen and those things that didn't happen. The inquiry has tried to put together some schedules, as we have in previous cases, to distil that information and present it in a way that aids, I hope, analysis.

There is, for example, at a straightforward level, a list of persons. Let me just open that up quickly so those who haven't been involved previously can see what I mean. It's at 312-003-001. There we are. It is set out in sections. The first section is the family section. And the idea of it, just so you can see the structure of it, is to say who the person is, what their position was at the time in question -- which is June 2001 -- their actual role in the case and

whether they've made any statements before and what those statements are, and in particular, to identify the inquiry witness statements.

And that goes all the way through and, so far as we can, we have tried to identify all of those who have come across our path in relation to the treatment and care of Raychel. These are working documents; if there are others, we will certainly add to them and you can always find them on the website.

There's also a chronology. It's 312-004-001. This chronology isn't everything that people say happened to Raychel because some of the things are contentious and we hope to identify them in the course of the oral hearing. In fact, that is a very important part of the oral hearing, to see if we can resolve some of those differences between witnesses. But what we have tried to do is to put into this chronology the things that don't seem to be in any dispute and, importantly, the things that are recorded. So it's limited to that extent, but nonetheless it's quite detailed, as you can see, and let me help you quickly with how it works.

There's a date and then there's the time, when we have it, then the particular event and then the source of that. Usually, that will be something from her charts, her medical notes and records. If there

doesn't seem to be very much dispute about it, then it can be from a witness statement, if we don't have it in the charts. Actually, that is one of the issues, that many of these things are not actually recorded in the charts and so we've done our best to present a neutral view of the events.

In addition to that and to help you, there is a compendium glossary of medical terms, 312-005-001. We have added to a glossary that was started in Adam's case and then also in Claire's case, and this is so that you don't have to go back to different glossaries to find out terms that are common to the cases. So we have a running glossary of medical terms and we add to it as more terms are referred to in either the clinicians'/nurses' statements or the experts' reports, and we hope that that is of some assistance. It's supposed to be like a medical dictionary, really, but dealing only with the terms that are relevant to these cases.

Then there are some other documents and I'm going to talk a little more about them later on. The first of them is a timeline, 312-001-001. There we are. There's an awful lot of information on this document and it's intended actually to try, so far as we can, in a graphic way, to depict the information in relation to Raychel

over a critical period, which really starts with her examination with Dr Kelly and goes up to her transfer to the Children's Hospital. So it's really her time in Altnagelvin.

Let me help you a bit with that, because there's a lot there. The time is running along the bottom. The very first band across the top is to identify where she was, where Raychel was, that is. So obviously, A&E Ward 6, then she's in surgery and recovery, and then there's a very long period of time when she's back to Ward 6 and then there's a very short period of time when she's in the recovery room.

The two bands immediately below that are to try -- so far as we can do it because we don't have rotas -- and identify, during that period of time, who were the nurses who were on duty. That's that blue line, and you can see the names of the nurses there. If you drop down, you can see those bands correspond to times.

Then below that is, so far as we can tell, when Raychel's parents were with her. Sometimes they're both there, and that's the green, and sometimes one or other, and you can see that is identified there. In fact, if you look along there, you will see that, with the exception of those very stark white spaces, there was someone there with Raychel, other than just the nurses

who were on duty, during the length of her stay. And we are trying to see if it would be appropriate to plug, if it can be done, those white spaces with any other independent person who might be there.

That pale yellow band coming down, that is her period in surgery so far as we can tell. Then if we go along the bottom, that is really to indicate the interaction with either the doctors or other things that are of note that we have identified from her medical notes and records. Usually, the administration of some sort of drug or a result of her serum sodium or the passage of urine, which only happens once so far as it has been recorded. But you can see where she's examined by Dr Kelly, then you can see the prescription of the Cyclimorph, of which much has been written about, then the examination by Mr Makar, then her entirely normal serum sodium result of 137. We see the examination by Dr Gund and then there is the ward round by Mr Zafar and then the attendance.

Some of these times are a little bit approximate coming from witness statements, they're not entirely clear, doing the best we can. That is Mr Makar's attendance. Then we see Dr Butler coming in and changing the IV bag. We see the attendance of Dr Devlin at 6 o'clock in the evening and the administration of

the Zofran, as the anti-emetic, and paracetamol administered. Dr Curran coming in and the cyclizine, a further anti-emetic, then the new IV bag, and the seizure at 3 o'clock in the morning. 3 o'clock on the Saturday morning. She comes in on the Thursday.

Then there are the serum sodium results and the attendance by Dr Trainor, and there are others, of course, who come in at that stage. And then you see the transfer to the Children's Hospital at about 6 o'clock.

Going diagonally up are two bands, one of which is a cumulative fluid band, and that is -- I suppose you'd call that a royal blue. That is higher than the other because it takes account of the -- the other one, the other blue one, is the Solution No. 18 band. The royal blue is slightly higher because it takes account of the 200 ml, we think, of Hartmann's solution that was administered to her during surgery.

If we stick with the royal blue line, we can see various observations on there. The ones in yellow are the recorded vomits. The square red ones are the vomits that either a nurse, doctor, Dr Curran, for example, or the family have identified as having happened. We've done the best we can with approximations.

I should say one of the things to help with this part of this timeline is a schedule of observations.

And if I pull that up now because that might be helpful to see, it's 312-009. There we are. There has been an issue as to how extensive or not the observations were that were recorded of Raychel. What we've tried to do is pull together both what is recorded about her and what the different people who are with her say.

So you can see that obviously we have the time. If you go to the next page, there's more detail there. There we are. You'll see there she is at A&E. Then you have what is recorded in the hospital notes and records. Then you have the parents' observations next, then the nurses' observations, then observations by others. As you go through it, you will be able to see that we have highlighted in red and yellow to distinguish between those observations of vomits that are actually recorded and those that people have described in their witness statements as having occurred.

I will give you an example. If we go to page 007, you can see that between noon and 1 o'clock, there was a recorded vomit, "vomited plus plus", and if you can go down to the reference, that will tell you where that comes from. Then you see the observations of Mrs Ferguson, it was, at the time, and you can see where that comes from. Then you see the nurses' observation.

Then you have an observation by others, in this case it's Mrs Elaine Duffy, and she's there in the ward as her child is also a patient. That is the form that where we work through her time in Altnagelvin.

If you go back to where we were on the timeline, 312-01-001, that is what we've tried to depict there as well as some of the descriptions and some of the people interacting.

The FBC is the fluid balance chart. That's what that stands for. That other line is the cumulative total of her Solution No. 18. Those little diamonds are really to indicate when that observation was being recorded. The initials are the nurse who has signed off as having done that.

But if you look at where I was just taking you before, you can see that if one was only to look at the recorded vomits, then you would have quite substantial gaps between, but if you add in the vomiting observed, the picture looks completely different. That is a matter for evidence as to how accurate those observations are, but if you add them in, you can see that with the slight exception of between about 3 o'clock in the afternoon and about 6 o'clock in the evening, there's fairly regular observations of vomiting. So that is the timeline and I will go back to

the timeline probably during this opening, but just to help you with that.

These are the other documents that I'm going to talk a little bit more about. There is the table of the clinicians' duty times. That's 312-006. Just briefly, how this works: we've not been able to receive the actual rotas of the clinicians, so other than by virtue of who signed on a chart or who is referred to in a witness statement in a way that has not been challenged, we don't really know who was on duty, but this is doing the best that we can. You can see by those blocks of colour, they are to indicate where we just don't know who was either on duty or on call.

There are three different schedules of these corresponding to the three different days, so here is for 7 June. It goes up in their order of seniority, which is the JHO, SHO, special registrar and consultant. We have in the past, for Adam's case, produced a nomenclature to guide you as to what those terms mean. If I just give you the reference to it and show you the first page so you can see what I mean, we're dealing with the doctors here, so if we go to 303-003-048.

That is to tell you what those -- the JHO is really the PRHO, so that is pre-registration, just to help you with that. The SHO, you see that, senior house officer,

then registrar and senior registrars and so on. That terminology changed at some point and this nomenclature goes on to describe that, but this is just to give you its reference so you know where to find it. The same is true of the nurses, although that usually produces less difficulty. That is 303-004-051. There it is. That is the terminology, that is what that implies in terms of the likely length of their experience and so on.

If we go back to the table that we were on before in terms of the times of the clinicians. Alongside is the seniority. Then we see for the anaesthetists, we see that Doctors Gund and Jamison were both on call. Dr Gund is first on call, Jamison second. Then we see the surgeons on that day: we see Mr Makar; the registrar, Mr Zawislak; and the consultant, Mr Gilliland. We have absolutely no knowledge as to who was about, if I can put it that way, in relation to the paediatricians.

I should say we have no knowledge at this stage. We certainly hope to have knowledge by the time we've concluded the oral hearing.

If we go over the page, this is now 8 June. We don't really know who the JHO was for the anaesthetist, but we know who the SHO and the registrars were and you can see that their. You can see their times too, and

some of them go over into another day. This is Friday, and you can see, for example, Dr Allen carries on, on call, on an on-call basis, up until the 9th. Then you see, for the surgeons and the paediatricians, we have some gaps there. We don't know who the consultant anaesthetist was at that stage.

If we go to the next page, this is the final period. By about 6 o'clock on the morning of this day, Raychel was being transferred to the Children's Hospital. But in any event, before we get to that, these are, so far as we are aware of them, the medics and clinicians who were on duty or on call, and you can see once again we have some gaps there. That's what we hope to address.

So that is who was about, if I can put it that way, for the doctors. In terms of how qualified they were or what was their experience, we've produced two other schedules dealing with the trainee doctors and nurses. 312-008-001. This is quite a dense document, as is its companion document for the nurses, but broadly what it's trying to do is it deals with the anesthetists, the surgeons and the paediatricians, the ones that had contact or involvement in Raychel's case. So if we start with Dr Gund, for example. You can see when he qualified in 1992. Just below that is the date when

they're registered with full or provisional GMC registration.

You can see just below, for example, that Claire Jamison had her provisional in 1998, and that would be because at that stage she was just a JHO. Then if we stick with Dr Gund, just to show you how it works, you can see the next column is when he came to Altnagelvin. In his case, it was May 2001. Just to give you some idea of how familiar these doctors are likely to be with any of the practices that were in operation in Altnagelvin at the time.

Then there's another column, which shows what was their grade, if I can put it that way, when Raychel was admitted, and he was an SHO in anaesthesia, and then the final column is just to show where they are now, and he's a consultant anaesthetist.

Then the next two columns are all to do with education, training and experience. The first is pre-registration, which is to give you, Mr Chairman, what we have gleaned from their CV, for example, or what is on their witness statement, about what they knew about hyponatraemia and record keeping and fluid management in their pre-registration period, which would be undergraduate, postgraduate, all the way up until they were fully qualified and could have had GMC

registration.

Then the next column is what they gained after that. In particular, where did they have that experience, and that's what we're trying to show there. For example, in the case of Dr Gund, he had 2 years' experience as an SHO in anaesthesia before he came to Altnagelvin. So he was really quite experienced. If we go over the page, for example, you see, for example, Aparna Date. She is 1992 qualified. So she's also quite experienced. So this is just to give you an idea of those who were about, what was their level of experience, their familiarity with the procedures in Altnagelvin.

The final column is whether or not they had an induction in Altnagelvin. Some of these doctors were not, as you will appreciate, from Northern Ireland or maybe even if they were, not necessarily familiar with how things are done in Altnagelvin, so whether they received any form of induction or training relevant to the matters in this case, and that's what that final column is trying to show.

There is a companion one for the nurses. That's 312-007-001. This is set up on a similar model. So you have the name, obviously. If we start with Staff Nurse Patterson, you see her registration, that's 1988. And then when she came to Altnagelvin and at what

grade she came to Altnagelvin, what grade she was at the time of Raychel's admission and what her current grade is. A similar thing, what does she say she received by way of pre-registration education, and then her post-registration experience. For example, for her she was three years as a staff nurse at the Children's Hospital. And then there's also the final column to do with whether they received any form of induction when they were taken on in Altnagelvin. And that's worked through for the nurses who have contact with and the care of Raychel.

So that's more or less it in terms of the documents that we have put together. If I now turn to open the case properly for you, Mr Chairman. Having gone through the documentation and distilled the information, if one were able to sum this case up at all -- and it's not always an easy thing to do and certainly not when we're at the stage of still trying to extract information for you, but two things do seem to be recurring themes, and they are to do with knowledge and management.

In some respects, it would appear that those who had the knowledge maybe didn't always have the management of Raychel's care, and those who did have the management of Raychel's care didn't always have the knowledge. I don't mean that to be at all flippant, but as one

works through just who was interacting with Raychel and what they claim to have known and understood about fluid management. That is a theme that seems to recur.

Then if I start to open the case for you, the starting point is probably the list of issues for Raychel. The list of issues is, of course, published, and one finds that at 303-038-478. There are really nine that we have identified as relevant issues for Claire that come out of the inquiry's terms of reference. The first is to do with prescription and administration of intravenous fluids and the choice of it and the infusion rate and the total amount. The second is the monitoring and management of Raychel's fluid balance. The third, the consideration given to the appropriateness of her IV fluid management, including communication about it between the nurses and the doctors. Fourth, whether her care plan should have been reassessed and, if so, at what time and in response to what events. Probably in there is whether it was adequate to start off with. Then fifth, whether there was a delay on the part of the surgical team in responding to calls from the nursing team to see Raychel, and if so, why that delay occurred and whether nursing staff should have taken any further steps to secure the prompt attendance of a member of the surgical

team.

Sixthly, whether the nursing and medical teams who cared for Raychel adequately monitored her condition and whether they provided her with appropriate treatment before and after she suffered her seizure at 3 o'clock in the morning of Saturday. And if not, what steps should have been taken to adequately monitor her condition and to provide her with appropriate treatment.

Then the ninth is whether any lessons learned from Adam's death in 1995 from the inquest into his death in 1996, from Claire's death in 1996, and from Lucy Crawford's death in April 2000, affected how Raychel's death was managed and, if so, in what way. And if it didn't affect it, how it might have affected it if other things had been done. And that's part of the continuing process in taking one child after the other, to look at that, which is really a governance matter, Mr Chairman, but some of it -- the groundwork for some of that can be started in the questions during this hearing.

So then we start, if we put the timeline up, 312-001-001, that is there for reference. We start with Raychel coming home from school at about 3.20, it's believed, on the Thursday. And Mrs Ferguson finding her in good form at that stage. She goes out to play, she

returns at 4.30, when she's asked for her dinner, and she experiences what she describes at that stage as "hunger pains" in her stomach. Mrs Ferguson becomes concerned about her and the upshot of that is that she is taken to hospital, which isn't that far away from where the Fergusons actually live. She arrives at hospital shortly after 7 o'clock that evening. She's examined in A&E and the first person who we understand has contact with her is a triage nurse, Staff Nurse McGonagle. That is recorded at 20.05 and the notes give her temperature and her blood pressure, which are normal.

Then she's seen by an SHO, Dr Barry Kelly, and he notes that Raychel is complaining of a sudden onset of abdominal pains, that she has been complaining of nausea, but there's been no actual vomiting, and he notes her weight at 26 kilos. She describes pain on passing urine and on the examination of the abdomen, Dr Kelly finds clinical signs of tenderness to the right iliac fossa, particularly over McBurney's point. This McBurney's point, we have actually a pictorial representation of where that is, and when we get into some of the clinical evidence, I'll probably put that up for you so you can see where it is and how they work out where it is and why it's significant for a diagnosis of

appendicitis.

There's also rebound tenderness and guarding and so he suspects appendicitis and he asks for a surgical assessment. Raychel's pain on passing urine is recorded in two places. It's recorded on the Accident & Emergency sheet and on the nursing observation sheet. Blood tests are arranged and a urine test is conducted and it reveals +1 protein.

Dr Scott-Jupp, who's the inquiry expert in paediatrics, is of the view that Dr Kelly's assessment and management of Raychel in A&E was entirely straightforward and, he says, in keeping with best practice. Mr Foster, who's the inquiry's expert on general paediatric surgery, notes that Dr Kelly's post-qualification experience of working with children was limited at that time, and he explains that diagnosing appendicitis -- and this is an extract from his report:

"... particularly in the face of a short history and normal vital signs, requires considerable experience, since tenderness, guarding and rebound are extremely difficult to clarify in a child."

He considers it unfortunate that Dr Kelly came rapidly to the diagnosis of possible appendicitis.

The one thing, apart from taking that note, that

Dr Kelly does do, is he prescribes IV Cyclimorph, 2 milligrams of pain relief and that is administered at 20.20 and you can see that there on the chart. Mr Ferguson remembers that injection and considered that Raychel was well improved. Mrs Ferguson, she agrees, says Raychel began to brighten up, her colour returned, and Mr Foster thinks that that's significant. He states that the immediate effect of the injection suggests that Raychel's pain was not due to inflammatory factors, but was more likely visceral in origin, and he says, if you take those together with her normal tests, Raychel's positive response to the analgesic ought to have prompted a review of the appendicitis diagnosis. It didn't, so far as we're aware.

Mr Foster has then gone on to criticise Dr Kelly's decision to administer Cyclimorph before the surgeon had actually had an opportunity to examine Raychel. And if you look at that, you can see that she's being examined by Dr Kelly, and then where she gets examined by Mr Makar. So there's not that long a period of time. One of the things we hope to explore is whether Dr Kelly was aware of how quickly Mr Makar could come and attend to Raychel. But in any event, Mr Foster is critical of it and the main reason he's critical of it is because he says that there is a real possibility that administering

Cyclimorph could mask signs that should otherwise be there for the surgeon for his diagnostic purposes. He says if the pain was the issue, which it was, then that could have been addressed through the prescription of paracetamol. He regards Cyclimorph as a powerful intravenous analgesic.

He also thinks that unless the symptoms are very severe, then it's standard surgical teaching that analgesia should be deferred until a patient has been seen by a surgeon. Mr Makar doesn't agree, and he is of the view that the administration of that Cyclimorph would not have detrimentally affected his ability to examine Raychel. And he doesn't think it would have masked the peritoneal signs appendicitis or peritoneal infection.

That is a difference between the inquiry's expert and Mr Makar and it's, to some extent, a difference also with Mr Gilliland because Mr Gilliland is, to that extent, supportive of Mr Makar's position.

So that is an issue that we will hope to clarify in the oral hearing as to whether it was appropriate to administer the Cyclimorph in those circumstances.

So the next event is Mr Makar comes to examine Raychel. He makes an untimed note of his attendance, and that is going to be an issue throughout the oral

hearing, the adequacy or not of the record keeping. Having referred Raychel to the surgical team, Dr Kelly believes that he would have had a discussion with the surgeon about his clinical findings and Raychel's need for assessment, but he can't recall the actual conversation. That might also be an issue, whether, if there was going to be a discussion like that in aid of diagnosis, whether that should have been recorded. Mr Chairman, you'll be aware of some of those sorts of discussions that happened in relation to Claire's case, and even Adam's case, as to whether they should have been recorded or not.

So a repeat urine test is carried out, and Mr Makar reached the view that Raychel is suffering from acute appendicitis and an obstructed appendix. He, in his evidence, says he explains the consent process, and what he believes he said is:

"I obtained informed consent for an appendicectomy after explaining the operation, the risks involved in surgery, including general anaesthesia and the possibility of having normal appendix versus the risks of waiting and the risks of morbidity from acute appendicitis."

There is an issue to be explored further as to exactly what he did say. Raychel's parents don't

recollect matters in quite that way. In fact, their recollection appears to be that they thought the signing of the consent form was precautionary and that the surgery was only going to go ahead if her pain increased, since by the time they left, her pain hadn't increased. In fact, it had abated. One of the things to explore is exactly what they did have in their minds as to what was to happen to Raychel when they left. In any event, that is a difference because it would seem that Mr Makar believed that he had made the position clear, that she was going to have to have surgery, and essentially it was a matter of waiting for an appropriate slot, bearing in mind when she had last eaten.

That's a point, Mr Chairman, that apart from the good order of working on(?) consent, it's an issue to do with the level of communication between the doctors and the family, and that's one of the very specific things that the inquiry's charged to look at, the quality of the information flow.

So Raychel is admitted, her admission to Ward 6 is timed at 21.41, and she's admitted under the care of Mr Gilliland, who's the consultant. That is going to be an issue because it would appear -- although from Mr Gilliland, in what I believe is going to be

Mr Gilliland's most recent statement, there seems to have been a slight lack of clarity on the point, but until that time it seemed clear that he didn't know that Raychel had been admitted under his care or a child like Raychel had been admitted under his care and, in fact, didn't know anything about it until Raychel was actually dead. That's how it appeared from all the papers and we'll see how it's put in his most recent statement.

So this is a move on from the position that you had with Claire, Mr Chairman, where the consultant that she was admitted under at some point knew that Claire was her patient, but didn't actually see Claire until Claire had had her collapse, if I can put it that way. Here we have the consultant who doesn't appear to know that Raychel is his patient and doesn't know anything about it until she's actually dead and that will be an issue, of course, that we will return to during the course of the oral hearing.

An episodic care plan is formulated for Raychel by Staff Nurse Patterson, and that started at about 21.50. Interestingly, she notes in the care plan that, on admission, Raychel was complaining of only slight pain. And in fact, there's never -- after she receives that Cyclimorph, there's never any indication that Raychel was truly in pain prior to her surgery.

That care plan is the subject of some criticism by the inquiry's expert on nursing. She says that the possibility of postoperative nausea and vomiting was not identified as a potential problem in the care plan and she says that considering the frequency of this problem in children, it was an omission in the care plan to fail to include this. So Mr Chairman, so far as the inquiry's expert is concerned, the care plan starts off rather inadequately, and then you will hear evidence as we go through as to whether it remained, so far as some are concerned, inadequate.

Mr Makar says that he discussed the presentation of Raychel and the plan for an appendicectomy that evening with Mr Zawislak, who was the on-call surgical registrar. He says that he contacted him via the switchboard and then he contacted him again before he went to start the operation. That's important because until he said that -- which is I think something that he says for the first time in a second witness statement for the inquiry -- until he said that, there was some criticism made by the inquiry's expert Mr Foster in him not contacting somebody more senior before he embarked upon a late-evening appendicectomy on Raychel.

That statement by him is not accepted by Mr Zawislak. Mr Zawislak says in his witness statement

for the inquiry:

"I have no recollection of being contacted by anybody to discuss the treatment of Raychel Ferguson on the night of 7 June. I was not involved in her treatment at that stage. This was a very high-profile case -- and a very tragic case -- and should I have been involved in any way, I would have remembered it."

So that is an issue to be addressed during the oral hearing.

So the parents leave and they're home at about 11.30 that evening. Then very shortly after that, at 22.50 [sic], they're contacted to say that they're taking Raychel to theatre, and they literally turn round and come back again.

The next point to examine is the -- although I don't need to do it in very much detail for the purposes of this opening -- the decision to operate at all. Mr Foster considers that the decision to operate on Raychel, certainly at that stage, was reached on tenuous grounds. He finds it difficult to accept the factors that Mr Makar says he relied on in support of his diagnosis and his reason to proceed to surgery. He also considers it significant that the indication that Raychel was experiencing pain on passing urine was not identified as an issue, and he feels that that is

something that should have been factored into the decision-making.

The inquiry also has Dr Simon Haynes as an expert in paediatric anaesthesia. He was an expert for the inquiry in Adam's case and Claire's case, and he shares Mr Foster's concern that the decision to proceed with surgery was debatable. He says that the wisdom of proceeding so rapidly to surgery has to be questioned since Raychel was not febrile, the severity of the abdominal pain had decreased by the time she was taken to theatre and her white cell count was not elevated.

Mr Foster and Dr Haynes each consider that an alternative case -- and I think they would say a more prudent course -- would have been to admit Raychel for observation and proceed to the appendicectomy the following day if that was definitely indicated.

Mr Gilliland disagrees with that, and as I indicated before, he is supportive of not only Mr Makar's diagnosis in the circumstances, but also of his decision to proceed to surgery. Dr Scott-Jupp, who's the paediatric expert for the inquiry, broadly agrees with Mr Gilliland.

So there is obviously an issue to be explored there about taking Raychel to surgery in the first place. Really, from the perspective that one could say that if

she had never gone to surgery, all the events that followed on from that, which was really to do with her post-operative fluid management, arguably wouldn't have happened and there would have been a whole different chapter in her family's life.

If I then turn to the preoperative involvement of senior surgical staff, which is an issue that bears on that decision-making process. One of the reasons Mr Foster is a little critical -- in fact, quite critical -- of the decision to proceed to surgery is that he refers to the 1989 report of the National Confidential Enquiry into Perioperative Deaths, NCEPOD:

"Consultant supervision of trainees needs to be kept under scrutiny. No trainee should undertake any anaesthetic or surgical operation on a child without consultation with their consultant."

For these purposes, "trainee" means everybody who is not a consultant, as you can see if you look at the nomenclature. Then he says in his report:

"Surgery conducted on children at night should be performed by a senior operator."

And Mr Chairman, this is the force of trying to find out whether Mr Makar did indeed contact Mr Zawislak and, if they did, then what was the assurance or comfort that Mr Zawislak gave him that he could continue on with that

surgery that evening.

As regards that specific point on NCEPOD, Mr Gilliland says that, in June 2001, he actually wasn't aware of the conclusions of the NCEPOD. He recognises that the recommendations of NCEPOD were not applied in Raychel's case, although he has indicated that whether they ought to have applied in a case of a previously healthy 9 year-old child undergoing an appendicectomy is a matter for debate. Doubtless, we will hear his views on it. In any event, at the relevant time, he didn't know anything about NCEPOD and now that he does know, he accepts that it wasn't followed in Raychel's case.

Then if one moves on to the preoperative involvement of senior anaesthetic staff. Dr Gund is an SHO in anaesthesia, as you saw from the training and education schedule. He was the lead anaesthetist during Raychel's appendicectomy and he had commenced working in Altnagelvin Hospital only on 10 May 2001, which is one of the reasons for putting that column up. So in terms of how familiar he was likely to be with how they do things, if they did do things in a particular way, then he's unlikely to be very familiar with it. He wasn't aware of NCEPOD or of a requirement to inform the consultant anaesthetist if he was planning to anaesthetise a child.

He did report the case, though, to the second on-call anaesthetist, who's Dr Claire Jamison. She was an SHO as well. It's not clear whether there was any discussion about the appropriateness of the surgery itself. But Dr Jamison is also unaware, or was at the time, of NCEPOD requiring her to inform her consultant prior to undertaking anaesthesia on a child, and she said it would have been normal practice to inform the consultant on call if there was a child on an emergency list, but she can't remember if she did that or if it was done in Raychel's case.

Then if we go to the fluid management preoperatively. That's very important, Mr Chairman, because it turns out that what happened preoperatively was going to dictate what happened post-operatively, so it's quite important to look at it and see why that particular regime was being prescribed.

Mr Makar started off by prescribing Hartmann's. He did that at A&E. We haven't actually seen the written record of it, but we're told that that is what happened. He says he wrote and signed for Hartmann's solution on a fluid balance sheet in the A&E, and he explains -- and this I think is material -- that he chose Hartmann's -- so it wasn't just something that was routine, he chose it -- because of its isotonic nature. But having done

that, he was asked by Staff Nurse Ann Noble, who was the nurse on duty on Ward 6, to change the fluid prescription to Solution No. 18. And the reason they said that is because this was the recommended solution at that time for the children in the paediatric Ward 6 and, not to put too fine a point of it, Mr Chairman, that's how they did things on Ward 6.

Mr Makar recalls that Ward 6 didn't apparently routinely keep Hartmann's in its stock, and he makes it clear that he was only prescribing in respect of the preoperative period when Raychel would have been fasting. So that's part of the factor that he's taking on board when he decides what he's going to prescribe for her and at what rate, more to the point, he's going to prescribe it.

So having received that information from Nurse Noble, it gets changed to Solution No. 18, and that is written up and signed up for by Mr Makar. In fact, Nurse Noble explains the position in terms of why she gave that information as being:

"When I arrived on Ward 10, paediatrics, May 1990, Solution No. 18 was prescribed for pre and post-surgical and medical patients and it was the practice of both medical and surgical doctors to prescribe Solution No. 18. That was commonly used as the first choice of

fluids, so that's what we did."

One of the things that might be a little troubling is that Nurse Noble puts herself in the position of advising Mr Makar about the appropriateness of the fluid that he had decided to prescribe and for which he had, he would say, very good reason. Mr Foster believes that the admission of Nurse Noble at Raychel's inquest that she had never heard of hyponatraemia in her 14 years of nursing, that should be of concern if she's the person who is guiding, if I can put it that way, Mr Makar as to what the preoperative fluid regime should be.

THE CHAIRMAN: Sorry, am I right in understanding that Altnagelvin has not contradicted Nurse Noble's position that Solution No. 18 was prescribed for pre and post-surgical and medical patients in Altnagelvin?

MS ANYADIKE-DANES: Not that we've heard yet.

THE CHAIRMAN: So whatever criticism might be made of Nurse Noble on various issues, if that statement is not contradicted, it accurately reflects what the Altnagelvin position was and it's reasonable for her to bring the Altnagelvin position to the attention of Mr Makar.

MS ANYADIKE-DANES: Well, yes. The difficulty is, Mr Chairman, and as we get into what the different teams thought -- that might be what she as a nurse thought,

but if one looks in a little more detail, what the surgeons thought was going to be the position and what the anaesthetists thought was going to be the position don't all fit with what is described. The nurses are all pretty uniform as to what they say the practice was, it's just that they are describing a practice that doesn't necessarily accord with what the anaesthetists and surgeons say. You've actually identified a very real difficulty, which is when you ask what is the Trust's position, it's not clear what the Trust's position is when you have the three main disciplines who are dealing with Raychel at that time having slightly different views as to what the regime was on Ward 6.

THE CHAIRMAN: Okay.

MS ANYADIKE-DANES: That is something that we're trying to explore with the Trust, to find out whether there was a practice and, if so, if there was one, how do you have such differing views about it, if I can put it that way.

In terms of the nurses being the front line, if you like, to communicate to who may be quite senior SHOs, albeit not terribly long at Altnagelvin, in terms of them being the people to communicate the fluid management regime, Dr Haynes makes a point in his report. He says:

"Although the nurses had knowledge of and were able

to recite to junior medical staff what was routinely prescribed on the ward [and I think this is your point, Mr Chairman] they were unlikely to have a proper understanding of fluid and electrolyte balance or understand how abnormalities could arise."

Dr Haynes adds:

"Seemingly, nobody took ownership of the supervision of fluid and electrolyte balance, not surgeon, anaesthetist nor paediatrician."

So he's identified that there isn't unanimity of view and, in any event, he queries the wisdom of it falling to the nurses to explain these matters when they are not -- or should not be -- as alive to the significance of the condition in relation to the prescription, so the presentation of the child and the fluid being administered.

THE CHAIRMAN: In other words, who's in charge?

MS ANYADIKE-DANES: Exactly.

THE CHAIRMAN: Or, as Thursday night went into Friday, was anybody in charge?

MS ANYADIKE-DANES: Exactly. That is exactly the point.

And if we then go to the rate of fluids, the prescription sheet indicates that Solution No. 18 was going to be administered or was to be administered at a rate of 80 ml an hour. That was erected at 22.15, as

you'll see from the timeline, by Nurse Patterson, and it was checked -- and this is part of good practice, as I understand it from our nursing expert -- checked by Staff Nurse Bryce. All that is confirmed on the fluid balance sheet.

She received a total of 60 ml of that Solution No. 18 preoperatively. But that's not the significance of it. The significance of it is the rate and how that affects the post-operative administration of fluids. Dr Haynes refers to something that's called the Holliday-Segar formula, and that is just a formula for how you calculate the normal daily maintenance of fluid. I am not sure, ultimately, that there has been any great difference between everyone as to what figure that produces. You use the child's weight and you have a figure for an initial 20 kilograms and then a figure for a further 5 kilograms and you end up in this case, given Raychel's weight, with 65 ml an hour.

Dr Haynes, Mr Foster and Ms Ramsay all consider that the decision to set the rate, as Mr Makar did, at 80 ml an hour was in excess of Raychel's maintenance requirements of 65 ml an hour.

Mr Chairman, you will, of course, recall from Adam and Claire that one's always dealing in these matters of fluid administration with two issues. One is fluid

replacement, so if you have lost fluid from diarrhoea or vomiting and so forth, that needs to be replaced. And then there's an entirely different thing called maintenance. The body just needs a certain level of fluid in there, and that's the maintenance level. The maintenance level that was being recommended as a result of using that formula would have been 65 ml an hour for Raychel, and 80 therefore, the experts say, was too high.

THE CHAIRMAN: They all formed that view about the appropriate rate separately and independent of each other?

MS ANYADIKE-DANES: Yes. So Mr Makar accepts the implications of the Holliday-Segar formula, but he says that there were some other factors that he applied to increase that to the 80 ml that he prescribed. One of them was that she had been fasting since 5.30 that evening. The other is that she had been in a warm hospital environment, so she's going to perspire and so on, and that's part of her maintenance requirement. And then the fluids were only started at 10 o'clock in the evening and he thought there would be a little bit of a fluid deficit before then, but fairly quickly she would be going into her surgery -- and this is perhaps an important bit -- that they were only going to be

administered for about an hour or so, so it was a short time in those particular circumstances, and he thought 80 ml was adequate or appropriate for that.

There are some issues as to why he was estimating Raychel's weight at 26 kilos and why didn't he just use her actual weight, which was 25. Those sorts of details, Mr Chairman, I don't propose to go into in this opening, it's all in the written opening so that people can read the likely significance of that.

THE CHAIRMAN: It's not the most significant point in terms of overload of fluid?

MS ANYADIKE-DANES: No, it's not. It's one of those factors about care and attention to detail, if you like, but not the most significant thing for her fluid management, no.

So then Raychel's brought to the theatre at 23.10. The intraoperative record shows what she was given then and you can see her period in theatre on the timeline. There's a retrospective note, which Dr Nesbitt requests, and that gives us this detail, that although she had a one-litre bag of Hartmann's solution put up, she only received 200 ml of that, and Dr Jamison has signed off on that retrospective note. When she goes into theatre, she receives Hartmann's, and that's something that the anaesthetist Dr Gund would have wanted. So the operation starts at about 23.30 and lasts up until about

20 minutes past midnight.

The surgical findings, I can deal with very briefly. Mr Makar recorded there was a mildly congested appendix with an intraluminal faecolith and that the peritoneal cavity was clean. The upshot of it is that when they examined the appendix, actually it was a healthy appendix, but nobody knows that at the start, so there's just the issue -- the issue really is what was the information available to make the original diagnosis and the original decision to proceed to surgery. As it happens, it turned out that possibly the surgery was unnecessary, but hindsight is always a wonderful thing.

There's a little bit of a concern for the parents as to how long she remained in the recovery room and what they were being told about that, and that will be an issue to do with communication, which we can take up during the oral hearing itself.

Then we go to a quite important period of time, which is the responsibility for the post-operative fluid management. Raychel returns to the ward at approximately 1.55, and her intravenous fluids are shown as having recommenced at that time. The investigation that we have conducted, that's the inquiry's legal team, has revealed that amongst those who had responsibility for caring for Raychel, there was a great deal of, it

seems to us, confusion and uncertainty surrounding the arrangements of fluid management in that post-operative period.

Dr Haynes says that's not uncommon for the boundaries of responsibility for post-operative fluid management to be a little vague and he says, to this day, they can be a little vague in most hospitals. But the fact that the boundaries might be a little vague -- I would say, Mr Chairman, we have to look at if what was actually happening was in any way uncertain because the child has to be treated and has to be treated competently.

So we have set out the different approaches to that, and these are actually quite important because it's in this, Mr Chairman, that one sees the very point that you were alluding to, which is: who knew what and did they all know the same thing? Dr Gund explains in his witness statement about having written the prescription of Hartmann's for Raychel's post-operative fluids. So he writes a prescription for Hartmann's to be administered to her whilst she's in the operating theatre. He also writes a prescription for her to have Hartmann's after she leaves the theatre, presumably because he thought that was the most appropriate fluid for her. In fact, Dr Haynes says that was entirely

appropriate that he should select Hartmann's. He takes issue with the rate of 80 ml. He said that was excessive, it was excessive beforehand, and he felt it was excessive post-operatively.

Then Dr Gund's evidence is, having done that, he was told by his colleague Dr Jamison to cross a prescription off because fluid management on the paediatric ward was managed by ward doctors. This is the point where perhaps his relative inexperience of Altnagelvin procedures was to his detriment. He may have been conscious that since he was only there for four weeks, that he should adhere to the practice as being described to him by Dr Jamison. That's going to be an issue.

Dr Jamison says she can't recall discussing with Dr Gund how Raychel's fluids were to be managed post-operatively. She says in her witness statement that it would have been usual for fluids to have been managed on the paediatric ward, although in general terms she said:

"If the anaesthetic team felt it necessary to prescribe post-operative fluids, then they would have done so."

That was exactly what Dr Gund did do. So then how that fits in with the practice or protocol is unclear if the anaesthetist prescribes something other than

Solution No. 18.

Dr Gund says his understanding was that once Raychel was established back on the ward, a nurse would ask a paediatrician to prescribe for Raychel's ongoing fluid needs. The significance of that, Mr Chairman, is that whatever they thought was the practice that happened in that ward, Dr Gund's view, his evidence, is that some clinician was going to make that decision, not that one would simply continue with whatever had been prescribed for her before surgery, but a clinician would actually make a decision. As it happened, he was being told it wasn't for him to do it.

If one moves to the approach of the nurses, we start with the recovery area care record. That's written by Nurse McGrath, who was the theatre nurse. She indicates that fluids are to be recommenced in ward. That's what she notes. She says in her inquiry witness statement:

"This record was based on the anaesthetist's verbal instructions, which stated that the Solution No. 18 that was in progress preoperatively should be recommenced on Raychel's return to the ward and that this was the normal practice."

There is a difference right there between the theatre nurse and Dr Gund because she is referring to having received an actual instruction to have the

Solution No. 18 regime restarted post-operatively. That is clearly something that will have to be addressed during the oral hearing. I would rather have liked it to have been given to us before then, how those two things are compatible, but in any event, it's something that we will definitely be exploring.

What does happen is that Nurse Patterson reconnects the intravenous fluids for Raychel when she gets back on to the ward and, what does she do, she reconnects Solution No. 18 at the rate of 80 ml an hour, which was the rate that Mr Makar says he only set at 80 ml a hour because of the special circumstances that I addressed you on earlier, Mr Chairman.

What was the understanding of the surgeons? The inquiry's investigation has identified some misunderstandings of the process for post-operative fluid management. Mr Gilliland's understanding seems to be this:

"Initial post-operative fluids are usually a continuation of fluids prescribed intraoperatively, not preoperatively."

Intra, in other words, whatever was happening during theatre:

"This prescription should be started by the anaesthetist in theatre and taken over by the surgical

team on return to the ward. Thereafter, the prescription of intravenous fluids is usually the responsibility of the pre-registration house officer."

Well, if that was going to happen then the Hartmann's, which was started in theatre, would have been continued in line with Dr Gund's prescription and continued on possibly to the end of the bag, and then somebody, a surgeon, would review and decide what the fluid regime was to be thereafter. That's what Mr Gilliland thinks is the position. But as you know, Mr Chairman, that isn't what happened.

Mr Makar also doesn't seem to be aware of how the post-operative fluids were actually managed. He says he understood that the anaesthetist would write the recovery post-operative fluids, which would cover the period post surgery, until the morning surgical ward when the surgeons would take over. He understood that the anaesthetist would actually write a prescription, the anaesthetist would be responsible for this period, according to Mr Makar's understanding of the arrangements, because the fluid to be given post-operatively depended on what had been given intraoperatively and whether there had been a fluid deficit or overload.

So Mr Chairman, they simply don't accord with the

view that the nurses had, but unfortunately it was the nurses who appeared to be in control of that process. If one goes to the paediatricians, it's no more illuminating, but I won't go through it all. We have done an analysis of it. Our experts' view is, if one takes Dr Haynes, that it's the anaesthetist who should have been responsible for the initial fluid prescription, both rate and type of fluid, on return to the ward, with the surgical team taking over the role either at the next ward round or, if the patient's condition changed. That's how that should work. And the reason it is is because it's the anaesthetist who's had the opportunity to assess the fluid status of the patient preoperatively.

He says that it's completely inappropriate -- in fact, if I just take you a bit to his report, he says:

"It is completely inappropriate for the system that has been described to have been put in place. The problem was that there was no clear structure, no acceptance of responsibility between the senior staff in the three specialties, surgery, anaesthesia and medical paediatrics, regarding this important aspect of patient management. It appears to have always been somebody else's job. The consultant staff in each of the three departments, by failing even to meet to agree

lines of responsibility, generated a system at Altnagelvin where intravenous fluid prescriptions for post-operative surgical patients were being dictated to the junior medical staff by nursing staff on the basis of custom and practice rather than by patient observation and informed by individual patient need."

And I'm sure, Mr Chairman, we will return to that issue in governance. But in any event, that is his very clear view as to how inappropriate the regime was, if indeed it was the way that the nurses have described it.

If I then go on to deal with the details of the post-operative fluid management. The start of that is the fluid balance chart because that's where one sees it all recorded. That was maintained by the nurses and you can see their initials on that timeline as to who was recording what. There is an observation about that, because if you look at that timeline, it goes up almost as if it was drawn with a ruler. There are no variations in it at all. Sally Ramsay, the inquiry's expert, has commented in her report about that. She says:

"The fluid balance chart shows the total amount of intravenous fluid given and it appears Raychel received the exact same amount every hour. In my experience, the hourly volumes vary as it is unlikely that a nurse can

read them at precisely the same time each hour. It is an unusual practice to record both the hourly amount and the cumulative total, and the entries suggest the chart has been completed with expected volumes infused rather than actual volumes."

That is obviously something that we will have to take up during the oral hearing because if that's the case, that has very serious implications for being able to manage this child's fluids if one's looking at a chart that doesn't perhaps accurately capture exactly what is happening as it is happening.

There are some other criticisms about that in terms of its failure to fully, so the evidence suggests, record all the input and output. At least one of those vomits is a vomit that happens when Dr Curran is there, and he actually sees it, yet that doesn't appear on the fluid balance sheet.

Mr Chairman, where I really wanted to go to next was to start with the next day. But I'm conscious of the time and I wonder if this is a ...

THE CHAIRMAN: We'll go on for a while longer.

MS ANYADIKE-DANES: The next day really starts with the surgical ward round and with Mr Zafar's attendance. It is very difficult to tell exactly the precise time of it, but it's some time before 9 o'clock. Unfortunately,

when it happens, Mr Ferguson has just stepped out to get a colouring book for Raychel, so he's not actually there when it happens. But there's no record or mention of Mr Zafar asking where Raychel's parents are so that he can discuss her condition and treatment plan with them, and he's the first of five doctors who attends with Raychel during that time. No doctor saw Raychel more than once and there is no evidence available to the inquiry to suggest that the doctors who saw her actually spoke to each other about her condition.

Sister Millar is there, present when Mr Zafar is carrying out the ward round. She places it at some time between 8.30 and 10. He makes a very short note:

"Post appendicectomy, free of pain, apyrexial, continue observations."

But he also says -- and this is point of difference between he and Staff Nurse Millar, who is a very experienced staff nurse -- he provided verbal instructions during the ward round to start Raychel on sips of oral fluid and gradually reduce the IV fluids. When he was asked about that in a second inquiry witness statement, he said that he advised that the rate of fluid should be reduced. But Mr Chairman, there's absolutely no written record of that having happened, and that, one might like to think, is quite an important

instruction, apart from anything else, because it does deal with the reduction, but it doesn't, unless he went on to expand upon it verbally, appear to say, "To be reduced" what to, at what rate, what should trigger the reduction, and so on. And those are all issues to be explored further in the oral hearing.

What we do know is that there wasn't a prescription written up to reflect that view if that is what he told the staff nurse. He makes no reference and doesn't appear to factor in the fact that Raychel had a vomit at 8 o'clock that morning, which would have been shortly before his ward round. In his witness statement, he said that she was bright and alert, free of pain and nausea or vomiting.

He does say, had he known that she had vomited, then he would have arranged for a blood test of urine and electrolytes, which might turn out to be significant, because Sister Millar says she told Mr Zafar that Raychel had vomited at 8 o'clock, and anyway it was on the fluid balance sheet, so if he'd looked at the fluid balance sheet, he'd have seen that. So that's an issue to be explored further.

There is a question as to who should have taken that ward round. The person who carried out her surgery is, of course, Mr Makar. The person who did the ward round

is Mr Zafar. Mr Gilliland has said that, on 8 June, he would have been available for consultation or for the direct clinical care of somebody like Raychel if that had been thought to be necessary. So there is an issue, which I'm not going to go into in great detail now, because it's set out in the opening, as to whether that ward round should have been taken by Mr Gilliland or whether it should have been taken by one of the registrars. And in any event, if it wasn't going to be somebody more senior, should it at least have been taken by Mr Makar, who was about, because shortly after that he came to see Raychel.

The issue about the registrar is one that we will have to explore a little further because there is a reference to a registrar being about on the ward and so we will need to see whether -- we haven't been told yet as to who that person might be, but we are trying to find out who that registrar was. If there was one, then we'll need to try and identify the person and to see why that person didn't feel it necessary or appropriate to come and examine Raychel.

It's not entirely clear what Mr Zafar did during his examination of Raychel or indeed the extent to which he examined her at all. He doesn't seem to have come back or doesn't seem to have made any attempt to come back

and speak to her parents. Mr Ferguson, on his evidence, wouldn't have been away for more than about 15 minutes and that will be an issue to do with communications with parents.

Dr Haynes is quite clear that:

"All inpatients should be seen, examined, and the results of appropriate investigations scrutinised on at least a daily basis during the course of a formal ward round, ideally supervised directly by the responsible consultant."

And he was surprised that Mr Gilliland did not do a ward round of surgical patients admitted under his care in the 24 hours prior to that 9 o'clock on 8 June, and he regards that as having been standard practice.

Mr Foster has also noted that Mr Zafar's limited experience of working with children -- he had only been 4 months as an SHO. He considered it:

"... entirely unsatisfactory and unsafe that a clinician with such limited experience was left to conduct a ward round of such importance in the absence of a specialist registrar or consultant."

And that is particularly why we are keen to see whether there was a registrar available on that ward and why that registrar didn't attend if there was one.

Then we have Mr Makar. He comes at 9 o'clock. Why

it was not possible for them to coordinate their attendance on Raychel isn't clear, but that didn't happen. In fact, it's Mr Makar who makes reference to a registrar. He says that he was told that he had just missed the other surgical team, which comprised a registrar and an SHO. So that's where that came from.

But in any event, Mr Makar comes, he doesn't examine Raychel, but Mr Ferguson is back there at that stage and he does have a discussion with him. But because Mr Makar is of the view that Raychel's now in the care of Mr Zafar, he doesn't regard it as part of his role to consider what her fluid management regime is, to see the significance of the fact that she has vomited, or, for that matter, to discuss anything with Mr Zafar. His view is he's written a detailed operative note, it's all there and Mr Zafar can glean what he needs from it.

Then if we go to the post-operative nausea and vomiting, because this proves to be the most significant thing that happened during that Friday, 8 June. You will see on that timeline the incidents, those that are recorded and those that are recalled but not recorded. In addition to those, Mrs Ferguson -- and you can see her recollections -- personally recalls vomiting at 11 o'clock, 12 o'clock, two vomits at midday and 3 o'clock, and two vomits at 3.45 in the afternoon.

In her view, when she gave her evidence to the inquiry in her witness statement, she said that Raychel was just being sick all the time and heaving continually. Mr Ferguson also remembers Raychel vomiting he says that:

"Raychel remained in bed while I was there and vomited several times and I recall taking several kidney trays filled with vomit out to the nurses."

That doesn't fit at all with what Sister Millar says. If you look along the top, you'll see who was there. During this period of time, you're really dealing with Sister Millar, nurses McAuley, Roulston -- they're the ones who are on duty up until 8 o'clock that evening.

THE CHAIRMAN: So there's a minimum of seven vomits in 15 hours if we go by the fluid balance record --

MS ANYADIKE-DANES: Yes.

THE CHAIRMAN: -- and a query about whether there are six more?

MS ANYADIKE-DANES: That's exactly it.

What Sister Millar says is -- she agrees that Raychel was generally bright and happy in the morning and Mr Ferguson has talked about her being able to walk around. She says that:

"She vomited undigested food at 10.30 and again at 1

and at 3, but these weren't large amounts and, as far as she was concerned, Raychel continued to be stable, in good form, and gave no cause for concern."

Sister Millar is on duty until 8 o'clock in the evening.

So that is a factual difference that has to be addressed during the course of these oral hearings.

The cause of the post-operative nausea and vomiting is something that is important for us to explore in the hearings because of the extent to which it points towards hyponatraemia and hyponatraemia left untreated is, as we all know by now, a very dangerous thing, particularly if, as it develops, one continues to infuse with low-sodium fluids.

So Dr Haynes says, according to him:

"Post-operative vomiting related to anaesthesia and operation per se [so if there is post-operative vomiting that is caused by the operation and the anaesthesia itself] that usually settles within the first six hours. It is sometimes troublesome for up to 24 hours."

In addition, some of the opiate drugs used for pain relief have nausea and vomiting as possible side effects. So it's to be expected that there could be some post-operative vomiting. As you'll recall, Mr Chairman, that's one of the reasons why Ms Ramsay,

the inquiry's expert, says that should have been built into the care plan just because it is to be anticipated.

Dr Scott-Jupp says that because Raychel didn't vomit until some eight hours after she left theatre, he thought it was unlikely that it was the anaesthetic agents or the operation itself causing the vomiting. So in his view, if one takes that to its logical conclusion, somebody should have been asking: why is she vomiting then some eight hours afterwards?

Mr Foster notes Raychel was initially well and mobilising and she gradually became drowsy and non-communicative. This is a point of difference between the nurses and the parents and some of the other people in the ward. But in any event, on those people's views, she did become drowsy and non-communicative, and both he and Mr Foster consider that the initial causes of post-operative nausea and vomiting were likely to have been progressively overtaken by the onset of hyponatraemia, which itself was likely to have been caused partly by electrolyte loss in vomit and partly by SIADH.

So then if we go to the post-operative hyponatraemia, which is really at the heart of it for the purposes of this inquiry's investigation. Dr Haynes and Mr Foster have explained the main causes of

hyponatraemia during the post-operative period and there's no real difference between them: the administration of low-sodium fluid, hypotonic solutions, low urine output, which can be caused by SIADH. And Mr Chairman, I'm sure that you know by now that the issue is that ADH, antidiuretic hormone is produced naturally, the body does that as a response to surgery or stress. What that does is to restrict the expulsion of urine, so that free water is retained, it's reabsorbed into the blood by the kidneys and dilutes the serum sodium concentration.

If that happens too much, as I understand it, that's called the inappropriate SIADH, then that can contribute towards the development of hyponatraemia. So that's the second issue. The third issue is sodium depletion caused just by chronic losses from the gastrointestinal tract, vomiting in the case of Raychel. So Raychel could potentially have ticked all those three boxes.

Then we come to a very important point, which is: what was the knowledge of those who were caring for Raychel about that? Mr Chairman, that goes back to the very first thing I said, which is whether those who had the care of her had the knowledge and whether those who had the knowledge had the care of her.

Mr Foster refers to that mechanism of ADH secretion

following any stressful event such as surgery being a physiological fact that is core knowledge, and he would have expected any appropriately trained doctor and nurse to have known about that. He cites three standard surgical textbooks, which emphasise the potentially serious combination of low urine output, vomiting and the administration of hypotonic fluids.

Mr Chairman, you will remember that if you look at this timeline here, you will see that there is only one record of Raychel having actually passed urine. Now, it's known that she went to the bathroom, but nobody is trying to see how much is she passing, when is she doing it, what is the significance of that. And then if one considers the vomiting, there's certainly vomiting and the administration of hypotonic fluids -- well, she's certainly getting that. Those textbooks go back to 1969, 1964, so there's nothing new there as far as he was concerned.

Then Dr Haynes is of the opinion that fluid and electrolyte physiology is part of the undergraduate medical curriculum and that knowledge is certainly expected in the first part of surgical and anaesthetic postgraduate examinations. He believes it's clear that Mr Makar and Dr Gund knew what was correct, they knew about Hartmann's rather than Solution No. 18, but

neither -- and this is a critical point that he makes -- neither felt empowered to insist on what they knew to be the correct course of action. And that is definitely a point to be taken on, not just in the oral hearings in this clinical phase, but certainly into governance.

Dr Scott-Jupp, of course, wants to point out -- and that's a fair point to make -- that post-operative hyponatraemia is very rare and he would have expected a junior surgical doctor in a district general hospital to have a very limited understanding of, if any, the risks of hyponatraemia anyway.

But Dr Devlin, who's the JHO, in his witness statement, he says he was aware of some factors that could cause electrolyte imbalance in post-operative patients, and he lists any number of them, including vomiting, diarrhoea, fluid administration, hormonal response to surgery -- that's the ADH -- as factors which could all cause an electrolyte imbalance and he believed that Raychel was suffering from post-operative vomiting at the time he saw her, and he thought that Solution No. 18 was an appropriate choice of fluid in those circumstances. How the knowledge that he has just explained to us fits with what he actually saw on the ward and thought was appropriate is something to take up with him during the course of this hearing.

Dr Curran, he's the JHO, he doesn't believe that he had any experience or awareness of the condition of hyponatraemia or other electrolyte imbalance in the post-operative patient. He was unaware of the risks of hyponatraemia at the time and he didn't give consideration to the type of fluid.

Then if one turns to Mr Gilliland, in his deposition to the coroner, he said he only became aware of hyponatraemia after Raychel's death. And when he was asked to explain that, he put that down to or distinguished hyponatraemia from dilutional hyponatraemia. In other words, I think, Mr Chairman, he was trying to say it wasn't that he didn't know about hyponatraemia, what he wasn't familiar with was dilutional hyponatraemia, and he said at the time of Raychel's death:

"I had never encountered a case and there were no regional policies on its prevention or treatment."

Mr Chairman, you will recall the draft statement that was produced in relation to Adam's case and it was gone through, not just in relation to his clinical case but also his governance. Just for the purposes of juxtaposing that with what Mr Gilliland says, if we quickly could pull up 011-014-107A.

This is the draft statement that -- and you know its

genesis -- was attached to Dr Taylor's deposition to the coroner. If one sees in that middle section, leaving aside the major paediatric surgery:

"Furthermore, the now known complications of hyponatraemia in some of these cases will continue to be assessed in each patient and all anaesthetic staff will be made aware of these particular phenomena and advised to act appropriately."

In the light of what Mr Gilliland is saying, it is quite clear that a message like that never got to him. And if one looks at the first part of it, the first part is to refer to a paper by Arieff. All of the clinicians were asked whether they were aware of that paper and the papers that came after it, and to a man and a woman, they said that they were not. But if that statement had travelled further afield than the very few people who saw it in the Royal, somebody might have asked: I wonder what that paper says, since this statement is being drafted in the light of it. And had they been moved to look at the paper -- if I can just pull up 011-011-075, for the benefit of those ... Can we just highlight that table at the bottom, please?

This is a paper written in 1992 after a study of some 16 patients. All these patients developed hyponatraemia. If you look at the clinical outcome, you

can see if they didn't die, then they either lapsed into a vegetative state or they had some significant mental retardation. But look at the sort of patients that there are -- this is not major surgery. If you look at the top, you can see "tonsillitis, tonsillitis, tonsillitis" and if you look at the outcome, for all of those, with the exception of the first one, who lapsed into a vegetative quadriplegic state, they all died. So if that statement had gone out and any enquiring doctor had said, "I wonder what Arieff said in that British Medical Journal article in 1992", they only had to turn to the second page to see that this condition of hyponatraemia is something that can result from surgery of the type that they did in Altnagelvin.

THE CHAIRMAN: Sorry, I don't think they did all die, apart from the first one.

MS ANYADIKE-DANES: I said that if they didn't die, they ended up in a vegetative state or with severe mental retardation.

So if they didn't die, they were very, very seriously affected by it. And the point that I'm putting -- and it's something that we will take up in governance, I'm sure -- is that Mr Gilliland doesn't know about that, but he arguably could have known about it, had the message travelled.

THE CHAIRMAN: He would have known about it if the message had travelled from the Royal after Adam's death?

MS ANYADIKE-DANES: Exactly.

THE CHAIRMAN: That brings us back to the issue in Adam's case: what the purpose of this note was. Was it to keep the coroner quiet and to keep the message inside the Royal?

MS ANYADIKE-DANES: Yes, Mr Chairman.

I was then going to turn to the nurses' knowledge. So that was the knowledge of the surgeons. If we go to the nurses, it's at this point that I'd like to look at the education schedule that I mentioned before. That's at 312-007-001. If we start with Staff Nurse Patterson. She was an experienced nurse, she was registered in 1988, and she joined Altnagelvin in 1999, grade D. She also had three years of training in the Children's Hospital. In fact, she was a grade D at the Children's Hospital for three years after that, so she was trained there and she did three years post-registration at the Children's Hospital. If one looks at what her knowledge was -- this is just a synopsis that has been pulled together by the legal team. I, of course, take responsibility for it. It may be that I have not accurately captured all that they have to say about it and I hope, if I haven't, I will be

corrected on it, but this was my reading of it.

So if one looks down at the bottom of it, she obviously has no knowledge of the Arieff paper and she says she wouldn't be expected to and I think that that would probably be something that the experts would agree on. But she was also not aware of the term "hypotonic" and therefore was:

"... not aware of any dangers that could occur as long as a child was receiving intravenous fluids. This would maintain their hydration."

So as long as you just keep on administering the fluids, that's fine.

If we look at Staff Nurse Noble, she's also a very experienced nurse. She was registered in April 1985, and she came also to Altnagelvin in 1999. She had worked as a paediatric nurse from 1989. She has had no specific training at all about hyponatraemia and her post-operative fluid management training seems to have been to ensure that children receive intravenous fluids until they're able to drink and pass urine.

What I'm trying to do, Mr Chairman, is to juxtapose the people who had the care, their knowledge, with those who perhaps ought to have had the care.

If one goes on to the next page, the nurse who is sort of slightly out of step and who does seem to know,

this is Marian McGrath. She also is extremely experienced: 1976 is her registration and she has been a theatre nurse since 1980. And she understood:

"If a child who was already on hypotonic fluids was experiencing prolonged vomiting, that child would have required urgent medical intervention."

She knew that. And an issue to be explored during the hearing is: why did some of the others not know or appreciate that? And if one looks at Michaela Rice, she qualified in 1999. She has three years' training at the Children's Hospital and she's also in the neurological ward of the Children's Hospital for eight months, which is a ward where maybe you think they might be familiar with some of these sorts of issues. She has a diploma in children's nursing from Queen's, and that included working with paediatric surgical cases and her post-op experience included recording fluid balance charts, inputs and outputs, recording oral fluids and IV fluids and recording output, urine and vomiting. One would like to think that the fluid balance chart might be, at least, at a reasonable standard.

She also, if one goes over the page, actually remembers that during her training, hyponatraemia was mentioned. How that was brought to bear on what actually happened during her care of Raychel is a matter

to be explored.

If you look at Avril Roulston, she's registered in 1984. She has 3 years at the Children's Hospital, two on Musgrave Ward at the Children's Hospital. She's also gone on a "Children's nursing: creating the future" course in 1997, and on a "Developing care for children" course in 1998. Well, what did she say about fluid management?

"If the child was on IV fluids, I was not aware that there could be an electrolyte imbalance and I was not aware of the dangers involved for a child experiencing prolonged post-surgical vomiting who was on hypotonic IV fluids, as long as the child was receiving IV fluids."

I'm not going to go through all of them, but I would like to take you to Sister Millar on this schedule at 005. An extremely experienced nurse. January 1971, she was registered. From 1976 in paediatrics. She was a ward sister. She had three years' training at the Children's Hospital. She's a registered sick children's nurse in 1971, she had five years at the Children's Hospital, two of which was as a ward sister from 1974 to 1976, and then she was acting sister in Altnagelvin before she actually became a ward sister in 1986.

She had been on courses on international paediatric nursing in 1998, paediatric update -- that was just the

year before, in March 2000. She describes the practice -- this is quite important -- this is what she thought was happening:

"The practice was for the admitting surgical JHO or SHO to prescribe intravenous fluids for the surgical patients. It was more frequent that the SHO or the registrar will actually carry this out. For the immediate 12 hours post-operatively, the anaesthetic team were responsible for prescribing post-op fluids and checking electrolytes. Thereafter, it was the responsibility of the surgical team."

So that is who she thinks are those responsible. And what she says about the choice of fluids is:

"Hartmann's solution may have been given intraoperatively, but on return to the ward, the intravenous fluid was continued as Solution No. 18. The intravenous fluid was continued as prescribed prior to theatre or the surgical doctor was asked to re-prescribe the fluid. Solution No. 18 was perceived to be the safe intravenous fluid, whereas intravenous Hartmann's was not, due to it having no glucose."

And she did not understand there to be dangers for a child with prolonged post-surgical vomiting who was on hypotonic intravenous fluids because the losses were being replaced and hydration was being maintained. So

that's the most senior nurse on the ward and that is the view that she would be communicating to her other also very senior nurses and to the junior doctors. So that's why, Mr Chairman, exactly what the practice was becomes so important. Because if it's as described there, one sees the implications of it.

Then I was going to go on to deal with the salient factors that happen actually during the day and culminate in the response at 3.

THE CHAIRMAN: Okay. I think we'll need to give the stenographer a break, but the question is how long for. Between you and Mr Quinn, how long might the openings take?

MR QUINN: Mr Chairman, mine should be no more than about 35, 40 minutes at most.

THE CHAIRMAN: Ms Anyadike-Danes?

MS ANYADIKE-DANES: I would like to think that I'd finish by 1, maybe just after.

THE CHAIRMAN: Let's take a 15-minute break and then not break for lunch.

MR QUINN: That would suit.

THE CHAIRMAN: Okay.

(12.30 pm)

(A short break)

(12.45 pm)

(Delay in proceedings)

(12.55 pm)

MS ANYADIKE-DANES: Could we put the timeline back up? 312-001-001. Thank you.

Mr Chairman, we've now reached the stage where I would like to address you on some of the issues in relation to Raychel's condition going through 8 June, which is really the primary period for her in terms of observing what was happening in relation to what was being done to her.

THE CHAIRMAN: This is all day Friday?

MS ANYADIKE-DANES: Exactly. Sometimes it is easier to think of it as Thursday, Friday, and Saturday. It might be significant that things happen on Friday evening going into the Saturday for the purposes of the allocation of medical resources or personnel, more to the point.

The nurses who saw Raychel in the early part of the Friday: Sister Millar, nurses Roulston and McAuley, they've all explained to the inquiry that they weren't unduly concerned about her because they didn't think that the vomiting was unusual following surgery and, in any case, as I have read out to you from those extracts from that schedule of their training and education, Raychel was receiving IV fluids. So as far as they were

concerned, their stated evidence is that that didn't present a problem for them.

There are some factual conflicts and we hope to address those in terms of the frequency and severity of her vomiting and also her general level of activity. In fact, that one about the general level of activity may turn out to be really quite significant.

If we go to that period of 10 to 12, and you can see it there on the timeline, and what is recorded as happening then. At about 10 or 10.25, Raychel is recorded as having vomited, and that's described as a large vomit. So that's an important factor. Her mother has described that in her evidence. She has also described -- at about 12 o'clock, she says she took Raychel to the toilet and as she was about to leave the toilet:

"Raychel began to vomit, which was large in volume and she was bright red and came out in a cold sweat."

She returned to bed and Mrs Ferguson said that she informed the nurse that Raychel had been sick, but the nurse said that was normal. So that's obviously something that we have to take up, exactly what the nurse understood by Mrs Ferguson's description, and why she regarded it as being normal.

Then if we go to the attendance by Dr Butler at

12.10. Dr Butler is being asked by Nurse McAuley to prescribe a further bag of Solution No. 18. From that training schedule, you have seen that Dr Butler was the paediatric senior house officer. The Solution No. 18 bag has run out and she's asked to replace it, essentially. She's not a member of the surgical team who has had any care of Raychel, but she was one of two paediatric SHOs who would be about. She makes no note in the clinical notes of her attendance, she signs the prescription sheet, that she prescribed it.

She doesn't really remember very much about it, but to the extent she does she said no concern was expressed by the nursing staff regarding Raychel's condition and, had she been aware of any concerns, she would have examined her. She doesn't examine her and she writes up the prescription and the solution is recommenced.

She doesn't take the opportunity to question that rate of fluid -- it's still running at the 80 ml an hour -- or the type. In fact, it's not clear that she questions anything at all, other than to simply write the prescription and hook up another bag.

Dr Haynes says that Dr Butler should have performed a calculation before renewing the intravenous prescription. He's of the view that the majority of paediatric trainees would always check the weight of the

patient and ensure that the correct rate of fluid administration was in order and that she should have done so.

Mr Chairman, one view of it is that that is her responsibility, she's the doctor and she has to satisfy herself that what she's doing in relation to Raychel is appropriate and correct.

Dr Scott-Jupp is not critical of Dr Butler. He says it's a normal situation on any children's ward for a passing doctor to be asked by a nurse to write up a routine prescription, either for IV fluids or antibiotics and so on, and so there will be an issue whether renewing the fluids at that stage should be regarded as a routine prescription. And if it wasn't a routine prescription, whether that means that Dr Butler really ought to have taken matters a little further than she actually did.

Then we have the period from 1 to 3. At 1 o'clock, Raychel is recorded as having "vomited plus plus". There is a criticism about the note keeping in the sense that those sorts of observations are subjective in any event, Mr Chairman, but there is an issue about their precision and what people are supposed to make of "plus plus" or that kind of grading, if I can put it that way.

Anyway, Nurse McAuley says she gave no consideration

to seeking medical advice following the third recorded episode of vomiting because since -- and here we go again -- Raychel already had IV fluids in progress, she had no concerns about her vomiting. So that is their view: if the child is vomiting, but on IV fluids, that's not problematic.

She says that she wasn't aware of any episodes of vomiting other than those that are recorded on the fluid balance sheet. So to the extent that the parents say they made their views clear about the incidents of Raychel vomiting, that will be an issue to be explored during the hearing.

Mrs Ferguson is quite clear. She says:

"As the day progressed, Raychel became sick more and more often and, at one point, she was vomiting bile on the bed. A nurse said her stomach was empty and that she would not be sick any more."

Mr Ferguson has a similar recollection. He says:

"[I] was taking several kidney trays filled with vomit out to the nurses. The vomit seemed watery."

If that's their recollection and they say they were communicating that to the nurses, then there's an issue as to how that was being dealt with.

If we go from 3 o'clock to 6 o'clock, Raychel is again recorded as "vomiting plus plus", and after the

fourth recorded episode of vomiting, Nurse McAuley is still unconcerned. She wants a doctor, but it seems not to raise any concerns with the doctor about Raychel's condition, but to prescribe and administer an anti-emetic, which would simply stop her being sick because she doesn't accord any degree of concern to the incidents of her vomiting.

So Mrs Ferguson goes home, she has other children that she needs to attend to, Raychel's godmother is there and she describes Raychel's condition. She says she's quiet, which is unusual for her, she's not speaking, even when she's prompted, and when Mrs Ferguson returns at 3.45 -- Mr Ferguson is at home to mind the other children. She says that on her return, Raychel is listless and was not her lively self. The inquiry's experts have attached some significance to her demeanour through the day, and Mrs Ferguson says she wasn't talkative, she wasn't interested in what was being said, and she considered her to be much worse than when she had seen her 10 o'clock. And she recalls her vomiting again at around 5 o'clock and she says she had started to panic at that stage because Raychel was, as far as she was concerned, "really just moving around like a zombie".

Sister Millar, at one point, had agreed that Raychel

appeared listless. At least there's a record of her seeming to do that. But she has since clarified her position. Where she says that is to be found at -- we don't have to pull it up, but the record of it is at 098-018-044. It's her evidence at the inquest. She says:

"It was further put to her [that's Sister Millar] that Mrs Ferguson had thought the child was unwell during the period. The sister had no concerns, the sister said that she would be prepared to agree with the description of Raychel as being 'listless'."

That's important at that stage because it seems that she's accepting Mrs Ferguson's description, but then she has explained further her position on it, and she said:

"I will be prepared to agree with Mrs Ferguson's description of Raychel as listless because I believe that parents often know their children best and it would have been wrong of me to disagree with Mrs Ferguson. However, I am firmly of the belief that Raychel did not display signs of listlessness during my time on duty."

And that is her witness statement for the inquiry. So exactly how that explanation comes about is something that we will explore further with Sister Millar.

Sister Millar goes on to say that she regarded Raychel as being in good form and she gave no cause for

concern and, although she was vomiting, it wasn't large amounts. She regarded Raychel as remaining bright and alert during the vomits and that she was giving no other cause for concern. She appreciated the need to administer an anti-emetic, but Raychel's vital signs were stable and she was on IV fluids, so she wasn't concerned.

Nurse Roulston has a similar view. She says Raychel was on IV fluids and it wasn't unusual for post-operative children to vomit:

"As her observations were satisfactory, I wasn't concerned."

There are others there during the period when -- that's one of those periods I was referring to, Mr Chairman, when neither Mr or Mrs Ferguson are there. One set of people who are there are Mr and Mrs Duffy, and they gave their accounts in PSNI statements. Just for reference purposes, the one for Mrs Duffy -- incidentally, I should say Mr and Mrs Duffy don't appear to have any prior knowledge of the Fergusons; it is just that they had a daughter in the same ward. The one for Mrs Duffy, for reference, is 095-007-022. She gives quite a bit of detail. She says:

"Raychel did seem alert earlier on the Friday morning, but she seemed to get very sick and deteriorate

during the rest of the day. From midday onwards, Raychel started to be very sick. She started to vomit. During the course of the day [she says she went home at 9 pm] she had vomited so many times and I could not say exactly how many. It was at least five vomits that I witnessed. Either her mother or the nurses removed the trays with the vomits in it."

She goes on:

"Raychel was becoming so sick that at one stage her father had to carry her to the toilet. Raychel was crying and moaning with pain. I remember the nurse trying to assist her with her headache. I don't remember the name of the nurses. This was in the evening before I left for home. Raychel was crying with the pain and it was quite distressing and on reflection it is even more distressing."

So that's the evidence of Mrs Duffy, which perhaps, Mr Chairman, you can see how that compares with the observations of Sister Millar.

Then the nursing care plan and notes are there to assist, but there was no change to Raychel's nursing care plan to reflect the fact that she was still vomiting more than 12 hours after the completion of her surgery.

I'm not going to go through the details of the care

plan and the observations and criticisms made of it. It's set out in the written opening and it's a matter that we will be taking up with the nurses during the oral hearing. But Mr Foster, and for that matter Ms Ramsay, are critical of the lack of mention anywhere in the nursing notes of the fact that the junior medical staff were summoned on three occasions during 8 June 2001. He's of the view that clinical or nursing notes ought to have been made to record the fact of these visits and the outcome from them. He adds that:

"More detailed records throughout the 8th would have assisted the nursing staff to detect an ongoing deterioration throughout the afternoon and evening of the 8th."

And it may be, Mr Chairman, that really what he's referring to is that if you have got a more accurate account or a more detailed account, one has an ability to try and detect a pattern or trend if there is one, but with such sporadic recording it might be difficult to see that, particularly if it is not always the same nurse that is seeing the child.

If one moves on to the attendance of Dr Devlin at 6 o'clock in the evening. He was first bleeped at 4.30 to attend the ward. It's not entirely clear why it seems to have taken him that time to get there.

Possibly, he was dealing with other matters. According to Sister Millar, Nurse McAuley attempted to contact the surgical SHO, but did not receive a response. Nurse McAuley states that she bleeped the surgical JHO and, in her statement to the inquiry, Sister Millar mentioned difficulties in contacting surgical doctors. This is her statement:

"... as they were in theatre and did not answer their bleeps."

That is something that we will take up.

Mr Foster has said that if that is correct, that is a very unsatisfactory situation and quite unacceptable practice for an SHO or a JHO on call in a busy hospital to have made no arrangements for someone to answer their bleep.

Mrs Ramsay is also concerned in the delay in obtaining --

THE CHAIRMAN: Sorry, just before you go on: a doctor who's in theatre is unlikely to be able to answer a bleep, isn't that right? Mr Foster's criticism isn't of a doctor who's in theatre failing to answer a bleep, or is it?

MS ANYADIKE-DANES: I think his criticism is of failing to make an arrangement.

THE CHAIRMAN: That somebody else would be bleeped?

MS ANYADIKE-DANES: Yes. If someone needs an SHO or JHO who's in theatre, and presumably they know they're going into theatre, there should be some arrangement for how somebody else can address an urgent call. Obviously, it can't be them if they are in theatre, but somebody ought to be available for that. I think Mr Foster says it is their duty to make sure that there is someone available to cover.

And the way Ms Ramsay says is that if the nurse has formed the view that they really need some medical intervention, then for it to take so long, she is concerned about that.

She's also concerned that Raychel had been experiencing vomiting and associated discomfort by that time for ten hours from the time of her first episode of vomiting at 8 o'clock until Dr Devlin attends, and during that time Raychel's nausea and vomiting was not controlled in any way -- because that is the first request for an anti-emetic -- and any sodium loss was not being replaced because she was on low-sodium fluids.

Mrs Ramsay says, though, that if a doctor doesn't answer the bleep, then it's incumbent upon the nurse to make a judgment as to who to contact instead. So whether or not the doctor has made some arrangement, if you need medical intervention, then you have to get that

medical intervention.

Then it's somewhere between 5.30 and 6 o'clock that -- it's unclear exactly when he does attend to administer the anti-emetic. Sorry, we actually do have an answer to your more specific question. Later on in his report, Mr Foster says that when a bleep goes off in theatre, a member of the theatre team usually first finds out why the bleep has gone off and reports back. So it seems even if it goes off in theatre, there's a way to address it, albeit it's not going to be the person who's literally conducting the surgery.

THE CHAIRMAN: Okay.

MS ANYADIKE-DANES: Dr Devlin had come on the ward to see another patient, but anyway he then sees Raychel. He makes no note of his attendance, but he signs on the drug sheet. Sister Millar says that she can't explain why there are no notes or records that was made in relation to the attempts to contact a JHO or the attendance of Dr Devlin and the steps taken by him. So she seems to accept that it would have been good practice or appropriate to have recorded the fact that they were trying to get hold of a doctor, also appropriate to have recorded when the doctor turned up and what the doctor did and what happened as a result of that.

And both nurses McAuley and Roulston state that the care plan should have been updated to record the administration of the anti-emetic and they don't know why it wasn't; they just know it wasn't. You will recall, though, Mr Chairman, from the schedule of their training that they all were -- almost all of them, I think, are recorded as having said they appreciated the significance of maintaining good records.

So then, Mr Chairman, what's recorded about that administration is:

"Vomiting this pm. Plus IV Zofran given with fair effect."

When one sees the incidents of vomiting that continued after that, it's not entirely clear when the fair effect is being evaluated or by whom or how. But that's what's recorded in the notes.

When Dr Devlin actually saw Raychel, she was literally vomiting when he saw her, and that's not recorded. So that cannot really be attributed to saying that the parents were there all day and maybe they're not entirely precise about when these things were happening. There is a very clear benchmark for that: it Dr Devlin, a doctor doing it. He recognised it, it happens when he's going to administer the anti-emetic. That is signed off for on the prescription, so we can

benchmark that. So that seems to be pretty clear that that incident of vomiting happened. Why it's not recorded is difficult to know, though.

He was aware that she was on Solution No. 18, but he didn't check Raychel's rate of administration because he didn't -- as far as he was concerned, JHOs weren't responsible for writing up fluids for children. So that interaction with a doctor passes without any review of her fluids.

Mr Foster says that:

"In his view, Dr Devlin had acted appropriately in the circumstances by administering the anti-emetic as requested, but it's much to be regretted that nursing staff didn't insist that he contact a senior colleague as [he] has no doubt that if he had consulted his senior colleague or a paediatric colleague, blood tests would have been ordered and any electrolyte abnormalities revealed."

So whilst Dr Devlin might have been right to say that JHOs don't write up fluids for children, the issue is whether the interaction between the nurse and he should have led to the intervention of somebody more senior who could then get a grip on matters and get tests done to see what exactly was happening with Raychel.

Then, Mr Chairman, we have what's called the coffee ground vomiting at 2100 hours. Mr Ferguson recalls that, he said that Raychel sat up in bed and complained that her head was sore, and that is going to be an issue of some significance so far as the experts are concerned. He recalls:

"Her face was bright red. She was holding on to her head with both hands and saying, 'Daddy, daddy, my head's wild sore', and then she vomited blood on the bed."

The nurses changed the bed and Mr Ferguson noted that as they did so, Raychel could hardly stand. So there are two nurses there when that is happening. He states that Raychel got back into bed, but within minutes she vomited blood all over the bed again and, this time, Mr Ferguson indicated to the nurses that Raychel could hardly stand. He lifted Raychel out of the bed and put her on his knee and the bed was changed again. So quite how that doesn't feature as an important incident is something that the nurses will, in due course, be asked to explain. Mr Ferguson goes on to say that he doesn't actually recall Raychel talking from about 1.30 until she did complain of that sore head at 9 o'clock.

According to Mr Foster, coffee ground vomiting is an

indication of significant or severe and prolonged vomiting and retching, and he describes how it happens as a result of bleeding caused by trauma to the gastric mucosa. Dr Scott-Jupp disagrees. He says that you can get coffee ground vomiting, it's not necessarily diagnostic of severe or prolonged vomiting. But what he does say, what is important is the frequency and severity of vomiting. That's what's critical, not whether you also get coffee grounds with it. And that frequency is something that I have been taking you through, Mr Chairman.

He considers that Raychel's symptoms at and from 9 o'clock were indicative of a need to do more than simply administer a second anti-emetic, which is what happened. He notes that the lack of response to the administration of two rounds of anti-emetics, particularly the second, should have prompted more concern and discussion by the more junior medical staff with more senior colleagues.

Dr Sumner, who is the expert for the coroner, expresses himself in a like vein. He says:

"There is no doubt that the presence of coffee grounds at 9 o'clock and the petechiae [that's the rash seen on her neck] suggested that Raychel had suffered severe and prolonged vomiting."

So if that is what's happening, then all the experts are in agreement that a senior clinician should have been seeing her at that stage.

Nurse Gilchrist has noted that her colour was flushed and pale, that she had been vomiting and complaining of a headache. In fact, the conclusion from all that is simply to get somebody to give her another anti-emetic.

Then at 21.30, 9.30 in the evening, Nurse Noble administers the paracetamol. That's to deal with Mr Ferguson's complaint that Raychel is experiencing headaches. So that is done and she records that, and then she records that Raychel settled to sleep. That's her entry in the episodic care plan.

Mr Foster notes that the entry made by Nurse Noble, in his view, bore no relationship to the reality of the situation at that time. But there may have been -- he may have misunderstood the time of that because it looks like that's happening at 6 am, so there may have been an issue, and if that's the case, then there may be an issue with how the episodic care plan can be readily interpreted by those coming afterwards to try and see what's happening and what they ought to do about it.

If we then move on to the attendance by Dr Curran at 10 o'clock. He's a surgical junior house officer and

he's contacted by Nurse Gilchrist. At that time, he's covering an on-call overnight surgical JHO shift. He describes that as being a very busy shift.

Nurse Gilchrist says that she explained to Dr Curran about Raychel's nausea and vomiting. He comes at about 10 o'clock and he gives cyclizine. That's the second anti-emetic. He doesn't make a note either in the clinical file regarding his attendance, he simply signs off on the drug sheet. And there's no contemporaneous nursing note made of that attendance.

It's not actually clear who attended Dr Curran and what the exchange was that passed between them or ...

THE CHAIRMAN: In other words, how much he knew?

MS ANYADIKE-DANES: Precisely, that's exactly it. It's not clear how much Dr Curran appreciated that she had been receiving intravenous fluids for almost, at that stage, 24 hours and that she had been vomiting since 8 o'clock in the morning and vomiting at a pretty regular rate, and that she had been vomiting blood. It's not clear that he appreciated all of that at all. But there will be an issue as to how much he should have tried to find out. He would have known it was a second anti-emetic, but there will be an issue as to how much he himself should have tried to find out about Raychel's condition at that stage and there obviously is an issue from the

nurses if you've got your medical intervention in to give an anti-emetic, how much should you be telling that doctor at that stage. They know why they're asking him to come, because they're concerned that she's carrying on vomiting, or rather, they simply want her to stop vomiting. What that exchange should be and what it actually was is something that we'll explore further.

In any event, whatever it was, he did not pick up any indication of grave concerns regarding Raychel. And it may be, Mr Chairman, that's because the nurses didn't have any grave concerns surrounding Raychel because she was on IV fluids and that means one doesn't need to have that kind of concern.

THE CHAIRMAN: But they had concerns enough to call him?

MS ANYADIKE-DANES: They were concerned enough to call him, exactly. That's why we need to tease out exactly what they were thinking and what their rationale was. From Mr Foster's point of view, he's clearly of the view that Dr Curran didn't recognise the seriousness and the significance of the vomiting. But he says that even a JHO should, without doubt, have understood the seriousness of continued vomiting and blood. If he had been told that, he should have appreciated that. Whether he should have found that out for himself is another issue. He says that the nurses should have

insisted on him calling his senior colleague.

He had that view about the earlier intervention, he certainly has the view about this one, and to have not done so, he regarded as evidence of substandard practice and it was much to be regretted because he says, at that stage, Raychel's situation was retrievable.

Dr Haynes also joins in with his concerns. He notes Raychel's symptoms: the headache, the emesis, nausea, lethargy, all of that, and receiving hypotonic fluids. He says Raychel ought to have had a blood taken for electronic assay. And he notes that the first tier of response to Raychel's condition was the on-call JHO, who would have had no formal paediatric experience at postgraduate level and who remarks upon the fact that inexperienced doctors such as Dr Devlin and Dr Curran were placed in a difficult situation where nurses expected them to prescribe an anti-emetic rather than give thought to the possible reasons why Raychel was still vomiting. He believes more experienced medical input was required during the afternoon and the evening of 8 June.

Dr Scott-Jupp considers that the lack of response to the first anti-emetic after four hours and the lack of response to the second one, in the sense that Raychel had further episodes of vomiting, should have prompted

more concern by junior medical staff and discussion with senior colleagues. And he says that at that stage, Raychel's condition necessitated a thorough examination for signs of reduced consciousness, infection, and for evidence of surgical complications. More to the point, he says that blood tests really were mandated, and you can imagine, Mr Chairman, that a blood test that would have measured her serum sodium level at that stage might have assisted them in recognising that this is perhaps not just post-surgical vomiting, this is something that had turned more serious and we were perhaps dealing with hyponatraemia, which can be dealt with.

So that all comes down to a point to do with the quality of the communications between the nursing and medical staff. Mr Foster has commented on that from the medical side. He says that the records and events of that day show all too clearly how a team can be locked into a mindset of what they expect to happen.

By the afternoon, Raychel should have been mobile, drinking, beginning to eat, talking about going home. Indeed he says the vast majority of children after a mild appendicitis would actually have been fit for discharge on the morning of the Friday and he cannot understand why nursing staff did not recognise it. And he explains that nursing staff ought to have acted as

a safety net in a ward where junior house officers were first on call. It's his view that this safety net was seriously defective and that this was due to a universal complacency that all was well until Raychel actually had her seizure.

He says that given the parents' concerns, that should have alerted nursing staff. So whether or not they witnessed all those incidents of vomiting, the family say they were telling the nursing staff that, and that should have prompted the nursing staff to seek senior surgical assistance or, at the very least, discussed her condition with the paediatric staff on the ward, and that he notes that the paediatric staff were available on the ward almost all the time.

Mrs Ramsay says that nurses can't always be expected or shouldn't be expected to identify hyponatraemia and that that was the problem for Raychel, but they ought to have known that vomiting can cause other medical difficulties. They should have known that persistent vomiting can cause dehydration and electrolyte imbalance and they should have known that fluid lost through vomiting needs to be replaced. So we're not talking about maintenance fluids, we're talking about replacement fluid. She says:

"I believe this is basic nursing knowledge of which

all nurses who care for children should be aware."

In fact, she offers her own perspective as to what a nurse faced with persistently vomiting child -- she said:

"Their role was to monitor the patient's progress, to advise medical staff of any changes or variations from the expected pathway. In practice, many experienced nurses help junior doctors in making decisions regarding treatments. However, the responsibility for medical management rests with the doctor caring for the child, who should be under the direction and supervision of a consultant. If nurses are to be viewed then, at least in part, as the eyes and ears of the doctor caring for the child, then they have to be sensitive to any evidence of departure from the usual post-operative recovery pathways."

And she says that it might have been initially reasonable for the nurses to expect a normal recovery, but the second vomit at or about 10 am ought to have caused the responsible nurse to make contact with the senior surgical officer. And then, of course, it all carries on, it doesn't end with just 10 am. She says that there was a need for medical intervention after the second vomit. So as early as that, she says there should have been medical intervention, and that view is

shared by just about all the other experts.

In fact, interestingly, the Trust had an expert view from a Dr Warde, and he prepared a report for Altnagelvin Hospital Trust. I should say he prepared this report before the inquest. He says:

"Vomiting as severe and sustained as that experienced by Raychel is rare and identifies rising intracranial pressure as a possible contributory factor."

He described Raychel's vomiting as "severe and protracted" and advises that, in his opinion:

"Appropriate fluid and electrolyte management in the post-operative period in a patient with abnormal losses cannot be achieved without electrolyte measurement and an accurate estimation of fluid balance."

That was the expert view that the Trust received and it's not entirely clear why that report was not disclosed to the coroner, but it wasn't, and neither was he asked to give evidence. Instead, a report that was prepared by Dr John Jenkins was submitted to the coroner, and he was given permission to give evidence. That report omits the references to vomiting and its possible significance, as well as the acknowledgment that Dr Sumner's opinion that Raychel must have suffered severe and prolonged vomiting may in

retrospect have been accurate. That is missing from Dr Jenkins' report. So that is an issue possibly that we will take up, if not in these hearings, then certainly in the governance hearing, as to why Dr Warde's report wasn't furnished to the coroner.

THE CHAIRMAN: The Trust didn't have to furnish it.

MS ANYADIKE-DANES: No, but if they're trying to assist, as is at least the doctor's duty, the coroner in his findings, then if you have an expert who expresses himself in those terms, well, we'll ask them as to why they didn't find it appropriate to assist the coroner in that way.

THE CHAIRMAN: They wouldn't be the first body to have a report which was unhelpful and not give it to the coroner.

MS ANYADIKE-DANES: No, Mr Chairman. We will simply ask why they didn't do it.

Mr Foster has no doubt that if, as all the experts seem to think, a more senior clinician had been involved, that would have resulted in blood tests, a measurement of her urine output and assistance from paediatrics and anaesthesia and a correction, more significantly, of the hyponatraemia with saline fluids -- that's what he thinks would have happened -- and the correction of the fluid overload with diuretics

to accelerate urine output of water and reverse what he considered to have been the effects of ADH. So that is what he regards as the missed opportunity.

Then if I go to that bit about electrolyte testing. A blood sample wasn't taken from Raychel during 8 June for the purposes of electrolyte testing, despite the fact that IV fluids were administered on a continuous basis during the day following her return to the ward. Dr Haynes regards that as a significant omission. He says that should have happened and that the failure to acknowledge the severity of the vomiting and to monitor Raychel's electrolytes is a more significant criticism than the inappropriate use of the Solution No. 18 itself. Solution No. 18, he says that was in common use in 2001, albeit that there were criticisms of it, but:

"Nonetheless, that could have been addressed if they had been attending to the presentation of Raychel and treating that through measuring her electrolytes and appropriately addressing her fluid management regime."

He refers to the part of Arieff's paper, just by way of convenience, to highlight the significant elements. He talks about headache, nausea, emesis and lethargy. They're all consistent symptoms of hyponatraemia in children, and:

"... if the condition is untreated, there can follow

an explosive onset of respiratory arrest, coma, transtentorial cerebral herniation and, when a paediatric patient receiving hypotonic fluids begins to have headache, emesis, nausea or lethargy, the serum sodium concentration must be measured."

And he says that Raychel was experiencing all these symptoms during the afternoon and the evening of 8 June and that if, at any point from the late afternoon onwards, the correct course of action was to take the blood sample for electrolyte testing and if a suitably experienced doctor had seen those results, in his view Raychel would have survived. Instead, surgical JHOs who did not fully understand and appreciate the need or care for fluid and electrolyte management, they were the ones who saw her.

All that they say in relation to the electrolyte tests is confirmed by Dr Sumner, the coroner's expert at the time of the inquest. So it's not just our experts looking at it from the point of view of 2012/2013 eyes, Dr Sumner said at the time:

"It would have been very prudent to check the electrolytes in the evening of that day [that's 8 June] as the vomiting had not settled down by that stage. There is no evidence of any attempt to measure the gastrointestinal losses or the urine output, both

essential for correct fluid therapy."

So that is a matter to be explored. Then if I come now to what is the final stages of Raychel's admission to Altnagelvin, which starts with the seizure at 3 am on the Saturday morning. It's the auxiliary nurse, in fact, who reports that to Nurse Noble. She says that Raychel is fitting and Nurse Noble attends and she finds indeed that.

She asks Dr Johnson, who's a paediatric SHO, he happens to be nearby and she gets him to attend to Raychel urgently. He almost in contradistinction to anyone else, makes a very detailed note of his attendance with Raychel and the steps that he took.

He notes that she is incontinent of urine, unresponsive and he administers, initially, 5 milligrams of rectal diazepam. The seizure activity continues, so he follows that up with 10 milligrams of IV diazepam and he administers oxygen through a face mask.

Why is she unresponsive at that stage? Well, obviously that's something that will be looked at very closely. From Mr Foster's point of view, he thinks that that was probably due to brain damage caused by the continued increasing intracranial pressure. But the view that Dr Johnson reaches is that it's to do with the administration of diazepam and Dr Foster accepts that

for him, that might have been a reasonable theory at that time. But in any event, what then happens is that, at 3.10, Nurse Noble finds Raychel's pupils to be equal but reacting, albeit briskly to light. She measures her oxygen saturations and Dr Johnson calls Dr Curran and asks him to contact his surgical registrar. He directs Dr Curran to obtain an ECG and blood samples urgently for investigation and to send the samples to the laboratory because he suspects there's an electrolyte abnormality. He thinks that's what might be the likely cause of the fit.

He's not thinking particularly about hyponatraemia, but he's thinking, the experts would say, along the right lines as to what might be the underlying problem. Dr Curran does do that, he takes the blood sample and he contacts Mr Zafar. It's not entirely clear when and how all that happens, but for whatever reason Mr Zafar doesn't actually arrive until 4.45. That's about an hour after attempts have been made to contact him during that period. And during that time, Dr Curran, the JHO, is the only member of the surgical team present at that time of crisis.

It should be said that Mr Foster praises Dr Johnson for acting commendably and quickly and showing those qualities expected of a good clinician. He also points

out that:

"Dr Johnson's realisation that this could be an electrolyte abnormality displays that knowledge of hyponatraemia and its effects were within the core knowledge expected of junior clinicians."

Whereas he might not have named it as hyponatraemia, he was at least recognising the potential electrolyte problem.

Dr Haynes notes that since Dr Curran was unable to secure the attendance of senior surgical staff and since Dr Johnson's more experienced colleague, Dr Trainor, was otherwise deployed in another area of the hospital, it would have been perfectly reasonable for either Dr Johnston, or the nursing staff on his behalf, to hav contacted Dr McCord, that's the consultant, at an early earlier juncture, to have asked him to attend.

Dr Haynes is of the view that:

"Senior input was necessary because, not unreasonably, Dr Johnson was unsure of how best to manage the problem. He had dealt with matters initially, but clearly he recognised that Raychel was in need of senior clinical assistance."

That's something we're going to explore, Mr Chairman.

So then if we go to the involvement of Dr Trainor.

At about 4 o'clock in the morning, Dr Johnson sees that Raychel is stable after that initial sign of fitting, so he goes off to look for Dr Trainor. She is a second term -- that's how she describes herself -- paediatric SHO, and he asks Dr Trainor to come and review Raychel. In fact, as he's doing that, apparently, he's beeped that Raychel is now looking even more unwell, so the arrangement is that he stays with Dr Trainor's patient and Dr Trainor comes directly herself and that's exactly what she does.

Meanwhile, Mr Ferguson arrives back at the hospital -- he has been contacted -- and he states -- this is his description of it, it must have been horrific for him -- that it was "complete chaos". He recalls Raychel shaking and trembling and, to some extent, that's confirmed by Nurse Noble who says that Raychel remained the subject of intermittent tonic episodes.

Raychel's pupils were found to be sluggish, but they were still reacting to light. Mr Ferguson telephones his wife immediately and she makes her way to hospital and she recalls her husband crying and saying that Raychel's heart had stopped and that the staff were working with her.

Let's go to the electrolyte results because they do get these now. Dr Curran was checking Raychel's blood

results on the computer when Dr Trainor arrived and Dr Trainor saw that Raychel's sodium was low and Nurse Gilchrist gives the time of that at about 4.20 in the morning. The first set of lab results show a serum sodium concentration of 119. Mr Chairman, you'll know from the results that we've seen before in Adam and Claire, that 119 is a very low level value indeed. And the sample time is noted at 3.30.

Dr Trainor wants to confirm that the sample hasn't been take from the same arm where the drip is -- and you'll have heard something of that in relation to Claire I believe -- and that's confirmed, it isn't. Then she directs Dr Curran to repeat the electrolytes urgently, do blood cultures and a venous gas. During that time, Raychel's fluids are not changed. The second repeat set of blood results show a serum sodium concentration of 118. That sample is noted at 4.35.

Following the receipt of that second result, Raychel's fluids are restricted to half the original infusion rate and they're changed to Solution No. 19. So she has her seizure at 3 am and it's when you get to 4.35 that that happens.

We will, of course, explore with Dr Trainor what she did and why she did what she did at that time and what her alternatives were. So that is set out in the

written opening and I don't want to go into that in too much detail, save to say that there is a real issue as to when Dr McCord is first contacted, leaving aside the question of whether he could and should have been contacted before, what exactly passes between them, what information she gives him so that he can best guide her on what to do in that situation as he's making his way to the hospital, and if she gives him the appropriate information, what is exactly the guidance that he gives her. It doesn't appear to involve changing the fluids, and that is an issue to be explored during the oral hearings.

I should say, though, that Mr Foster does praise Dr Taylor [sic] for acting with commendable speed and Dr Haynes says that:

"The staff responded quickly, recognising at an early stage that an electrolyte abnormality was likely to be the cause of her fit and intubated and ventilated Raychel without delay."

But at this stage, one is dealing with precious minutes, so although I'm not going to set out here as those minutes ticked by, that is something to be explored with those staff who were available then and those who are being called exactly what the best use, reasonably considering that they were in an extreme

situation, could have been made of the little time that was available to them.

THE CHAIRMAN: But this is against the background that it's only Dr Haynes who has recently raised issues about Dr Johnson, Dr Trainor or Dr McCord, isn't that right?

MS ANYADIKE-DANES: Not entirely. Dr Warde, who, I should have said, is the consultant paediatrician that the Trust has. He expresses a similar view, perhaps slightly more nuanced.

THE CHAIRMAN: Sorry, I think his view is some distance away from Dr Haynes.

MS ANYADIKE-DANES: Yes. What he says is:

"One could question why, upon receipt of the initial electrolyte results revealing sodium 119, Dr Trainor did not immediately alter the IV fluid therapy to 0.9 per cent sodium chloride, but instead asked for a repeat estimation. Whether or not this would have made a difference to the ultimate outcome, we do not know, but it may have been beneficial."

THE CHAIRMAN: So we have a contrast between Mr Foster, who isn't critical, in fact gives praise, Dr Warde who has a degree of a reservation, and Dr Haynes, who has now raised issues of criticism, potentially.

MS ANYADIKE-DANES: Yes. I suspect much of this is going to hang on exactly what people knew and understood and what

information was conveyed to the more senior people. That's precisely what we have to try and explore during the hearing. We don't have a very clear account of what was actually said or what views they formed at the time.

THE CHAIRMAN: As long as we know we are not looking for perfection.

MS ANYADIKE-DANES: No, I think we're a long way from that.

THE CHAIRMAN: Good.

MS ANYADIKE-DANES: Just as you mentioned, I could say that Dr Scott-Jupp thinks that it was appropriate to do the second blood set of tests and it was appropriate to wait until the repeat result came back before acting upon it, due to the risks of taking action on a false result and appropriate steps were taken after the receipt of the repeat results, but unfortunately, in his view, it was probably too late at that stage for a change in treatment to make much difference. But as I say, that's an area to be addressed.

When Dr McCord arrives, Raychel has been intubated at that stage and she's being manually ventilated. He found her to be perfused and unresponsive and her pupils remained fixed and dilated and he said that:

"Raychel had a marked electrolyte disturbance with profound hyponatraemia and low magnesium."

In Dr Haynes's view:

"By the time Dr McCord arrived at the hospital, Raychel's situation was irretrievable since her pupils were fixed and dilated and she required manual ventilation."

At that stage, of course, a number of other clinicians come. Mr Zafar comes, Mr Bhalla comes, who's the surgical registrar, and they all seem to arrive at roughly the same time that Dr McCord does. Mr Foster makes the obvious point that it's regrettable that none of those doctors could have come to her earlier when their expertise could have made a difference to the outcome.

There is an issue about the absence of the consultant surgeon on call. Mr Foster has no doubt whatsoever that the consultant surgeon on call, which seems to have been Mr Neilly, should have come in to note events, make a clinical note, and above all see the parents. Mr Bhalla states that he didn't contact the consultant surgeon as his initial assessment of Raychel strongly suggested a metabolic septic cause of her deterioration. In other words, it had moved away from being a surgical issue. But I think Mr Foster's view is that she had been or was still a surgical patient under the care of a surgical consultant and a senior member of the team, a consultant, should have been

there.

And in fact, he says he just can't believe that neither Mr Zafar nor Mr Bhalla would have contacted the on-call surgical consultant. And if they didn't contact the on-call surgical consultant, then he considers that to be a very serious issue by way of omission. In fact, he says the surgical department is scarcely represented at what he considers to be a crucial time, and that is something that we are going to explore a little further.

We have reached pretty much the final stage for Raychel at Altnagelvin. That is really the CT scans. By the time those senior doctors have arrived, it's clear to them that the next step is to get a CT scan and see what is happening in her brain. So at about 5.30 on the Saturday morning, Dr Trainor goes with Raychel to the X-ray department for the CT scan.

Dr Nesbitt, he's the clinical director and consultant anaesthetist, he has come to the hospital because Dr Date has called him, and he attends Raychel while the CT scan is actually being conducted. It's being conducted by Dr Morrison, he's a consultant radiologist, but it finishes at a little bit after 6 am. He reports that:

"There is evidence of a subarachnoid haemorrhage with raised intracranial pressure and that no focal

abnormality was demonstrated."

That issue of a subarachnoid haemorrhage is something that needed to be further explored. The inquiry's own expert in neuroradiology, Dr Forbes, is not critical of Dr Morrison for, as it turned out, erroneously suggesting the presentation of a subarachnoid haemorrhage. He says that:

"CT scans demonstrating severe cerebral oedema are not infrequently misdiagnosed as a subarachnoid haemorrhage by inexperienced radiologists in training or even consultant radiologists who have had limited involvement in acute neurological illnesses and cases of severe brain swelling."

What he did do though is, Dr Morrison sought a second opinion from a consultant neuroradiologist, who was Mr McKinstry from the Royal, and you'll recall Mr McKinstry has given evidence before in relation to earlier cases. After the CT scan, Raychel is brought into the intensive care unit, she's anointed by a priest, an evaluation sheet is completed with regard to her history which precipitated that admission to the ICU.

Mrs Ferguson recalls Dr McCord saying to her that the brain was clear and that if he could get her sodium up, it would be better, but that the neurological unit

at the Royal Victoria Hospital, with whom obviously they were in contact, needed another scan. That's what happened.

There's a second scan of Raychel's brain, and this time it's enhanced or contrast enhanced, and that is done at 8.51. The purpose is to rule out an abscess in the brain. The note records that the CT scan produced no new findings, but the scan was later reported to suggest:

"Raised intracranial pressure due to cerebral oedema and as excluding a subdural collection or subarachnoid haemorrhage."

Dr Morrison is in discussion with Dr McKinstry about the scan. We're trying to find out a little more about exactly what they did discuss. Apart from any other thing, the reason is because of the information that's provided to the parents about Raychel at that time. Mrs Ferguson states that following the second CT scan, they were told by Dr McCord that the doctors at the Children's Hospital had seen a trickle of blood on the outside of Raychel's brain and another doctor -- it's not clear who that is and we're trying to find out -- told them that there was a lot of pressure inside Raychel's head and that they would operate to reduce the pressure, and it was indicated that that would take

place at the Royal.

The earlier reference that Dr McCord makes to a CT scan -- the best place is the actual note in the clinical notes and records. What he actually writes is:

"Chart CT, brain."

And then there's an indication of "normal". That can be seen at 020-015-025. It's quite small, Mr Chairman. It's almost directly in the middle of the page with the line going from it saying, "Verbally". There it is:

"CT brain. Verbally."

And that N in a circle we understand to indicate "normal". And "verbally" indicates that he had some consultation with somebody about that. Well, the only person he'd be having a consultation about it with is Dr Morrison, and Dr Morrison's view is that that didn't happen at all. In fact, it's in his witness statement -- only for reference purposes, we don't need to pull it up -- at 036/1, page 3. He says:

"At no time did I verbally report the CT scan as normal. I did not have any direct communication with Dr Brian McCord, consultant paediatrician. The results of the CT scan, and accordingly the results of any discussions, are summarised in my written report."

And he gives a reference for it:

"And also in my handwritten notes."

And Dr McCord was asked about that because he was really the person who was providing information at that stage to the parents. He addresses it in his witness statement, and that probably is worth pulling up. It's 032/1, page 3. It's (ii) at the bottom. He says that he made a retrospective note:

"On review, I note that I have commented on the CT film being 'verbally normal'. I cannot fully explain this, other than to cite possible sleep deprivation, a desire to return to normal duties and perhaps radiographer's comments prior to formal assessment by a consultant radiologist noting that the initial report is untimed."

It's not entirely clear what that means by way of an explanation and we'll seek some clarification of it.

As I say, the main point is to understand what he understood about Raychel's condition because that is what he's communicating to the parents, particularly if there is any suggestion that Raychel's condition could be relieved surgically. That would indicate that the parents were being given an impression that something could still be done at that stage. And we will therefore need also to know what the level of communication was between Dr McKinstry, who is an expert

at the Children's Hospital, and Dr Morrison, as to whether hope was being held out that something of that sort could have been done to revive and retrieve Raychel, save her life, more to the point.

Then, Mr Chairman, this only needs to conclude by saying that Raychel was transferred to the Children's Hospital by ambulance at 11.10. She arrived in paediatric intensive care at 12.30. Nothing happens during the journey. She remained stable, her condition is unchanged. She's accompanied by Dr Nesbitt. When she gets there, Dr Dara O'Donoghue records in the clinical notes that:

"Raychel appeared to have coned with probably irreversible brainstem compromise."

Then as you would expect, Mr Chairman, the brainstem tests are ultimately carried out, the first one, then the second. Both of them are negative. There is an inquest, and the post-mortem is carried out by Dr Brian Herron, who's a consultant neuropathologist, at that stage, and Dr Al-Husani. You will recall having heard evidence from Dr Herron in relation to Claire's case.

In fact, Dr Herron involves Dr Clodagh Loughrey, who's a consultant chemical pathologist, and he involves her because of his concerns in relation to

hyponatraemia. So he brings in an expert just as we were hearing from the witnesses and experts in Claire's case about the need sometimes and the appropriateness of the pathologist bringing in experts to deal with specialist issues. That's what he does and she provides a report and her three findings are really in relation to the acute hyponatraemia. So there's cerebral oedema secondary to acute hyponatraemia, and the reasons for that are:

"The infusion of low-sodium fluids post-operatively, the vomiting and the inappropriate secretion of antidiuretic hormone."

Then finally one has the report from Dr Sumner, which concludes that:

"Raychel died from acute cerebral oedema, leading to coning, as a result of hyponatraemia."

And then the inquest, which finds that -- well, really, it accepts the findings of the autopsy and it details in its descriptive part:

"On 9 June [she] suffered a series of tonic seizures necessitating a transfer to the intensive care unit of the Royal Belfast Hospital. She died the following day. Subsequent post-mortem investigation established that she died from cerebral oedema caused by hyponatraemia and the hyponatraemia was caused by a combination of

inadequate electrolyte replacement in the face of severe post-operative vomiting and water retention resulting from the inappropriate secretion of antidiuretic hormone."

THE CHAIRMAN: Thank you very much.

Mr Quinn?

Opening submissions by MR QUINN

MR QUINN: Mr Chairman, my much shorter opening address is really directed at the parents' view of this case. I want to go through this in some detail, but really by making some very general points.

Raychel was born on 4 February 1992. It was a joyful day for her parents, Raymond and Marie. She was a beautiful and loving little girl. She was their only daughter and she gave her parents great joy throughout her lifetime. They have three other sons. This family would now be celebrating Raychel's 21st birth on Monday 4 February 2013 -- that's next Monday -- had mistakes not been made and concerns addressed and someone in authority had stepped back and looked at the history of deaths from hyponatraemia in Northern Ireland during the years before Raychel's death.

The day she died, 10 June 2001, remains the darkest day in the life of this family and they are battered continually by waves of grief. They have placed their

faith in this inquiry. The family has faith in the system and they look forward to hearing the analysis of the evidence and the findings of the inquiry when all of the evidence has been heard.

In order to address the terrible injustice inflicted upon the Ferguson family and the other families involved in this inquiry, we are confident that no stone has been left unturned, no file has been left unopened, no office or warehouse has been left unexplored for various documents that are integral to the workings of this inquiry. This family are confident that they will see justice done for their daughter.

At this stage, I want to thank the inquiry legal team, particularly Ms Anyadike-Danes, for putting together a clinical opening that traces the history of Raychel's treatment in clear and concise detail and places against each piece of the treatment and care the comments of the inquiry experts, to whom I'll refer later. I am mindful that this inquiry does not any need any further analysis of the history of the case or comments made by the various experts who will be called to assess the performance of the medical team at Altnagelvin Hospital during early June 2001. However, some repetition from the medical reports is unavoidable. I will keep this to a minimum, trusting the evidence

will speak for itself.

The Ferguson family would like me to deal with the issues that they feel are important to a family like themselves, a family who has lost a child in totally unexpected circumstances. Here we have a series of events that all parents dread: a completely healthy child complaining of a sore stomach goes into Altnagelvin Hospital and is dead in less than 36 hours. Marie and Raymond Ferguson did what any other parents would do on that early summer's day: they took their child to the hospital because she was complaining of a stomach pain. They put their faith and trust in Altnagelvin Hospital in Derry, but it is clear to them, and as I will explain later, that Raychel would not have died, but for the treatment that she received in Altnagelvin Hospital.

It has not been easy for the Ferguson family. In the past years since the inquiry was established, their faith in the process has wavered. The Fergusons, and particularly Raychel's mum, Marie, have not been shy about expressing their views. They have suffered all of the normal human emotions to date: grief, confusion, loneliness, bewilderment and, without doubt, great anger. As the evidence will reveal, their anger is not without justification. The Fergusons intend to let the

evidence in respect of the treatment of Raychel and the death of Raychel speak for itself. The Fergusons are confident that this inquiry will, at least, reveal the true circumstances of the last days of Raychel's life and what happened afterwards. We also want to examine what went before and we cannot deal with Raychel's case without mentioning the case of Lucy Crawford.

This was a little girl admitted to the Erne Hospital who died in similar circumstances on 14 April 2000, just 14 months before Raychel died in Altnagelvin. The family want to make the point at this early stage that it would seem that nothing was learned from the death of Adam Strain in 1995, nothing at all was learned from the death of Lucy in April 2000, and it would seem that the death of Claire Roberts, because that was not deemed and defined hyponatraemia, was not even considered until 2004.

We should not forget that it took some brilliant investigative journalism, which is not now fashionable in this computer-driven age, to reveal the truth. It was not until the UTV documentary When Hospitals Kill was aired in 2004 that this issue came into the public arena. Arising from this documentary, the family of Claire Roberts contacted the Royal Victoria Hospital and this led to a full investigation into Claire's death,

a full eight years after she died.

The documentary highlighted Lucy's case, but it also focused on the issues of hyponatraemia and hopefully this has been useful in preventing other deaths in the years since the documentary was broadcast and this inquiry was set up. What the Fergusons want is for something useful to come out of the inquiry.

There are still a number of unanswered questions. There is still work to be done in relation to training of staff, the incorporation of guidelines and protocols into the health system across all of the boards and trusts and perhaps something could be done to ensure that there is some form of communal sharing of information across the various health trusts.

It is important that the Ferguson family and all of the families involved in the inquiry should have faith in the justice system. There are lots of imperfections in the system and, in fact, you may be surprised to hear that Altnagelvin Hospital still has not admitted liability for Raychel's death.

In this age of openness and in the search for truth and justice, how could this hospital and the trust responsible for that hospital still maintain that they are not responsible for Raychel's death? Even the most basic of investigations would have demonstrated to the

hospital authorities that there were errors and omissions in the treatment of Raychel during her short stay at Altnagelvin in June 2001.

Mrs Marie Ferguson, on behalf of Raychel, issued proceedings against Altnagelvin Hospital, claiming among other things that the staff failed to properly diagnose and treat the vomiting, that they failed to provide proper nursing care, that they didn't give her proper fluids, and that they failed to carry out a blood test to check her electrolytes.

The Altnagelvin Trust served a defence to this action in November 2005, admitting that Raychel did develop a cerebral oedema, that she died on 10 June 2001, but they denied that her death had anything to do with the negligence of any of their staff in relation to the diagnosis, the treatment and clinical care afforded to Raychel.

To make matters worse for her parents, when their solicitor, Mr Doherty, asked by open letter to admit liability for the death of Raychel, a letter from the Directorate of Legal Services, who represent the Trust, which was dated 30 June 2005, states that:

"While the Trust repeats its sentiments of sorrow and regret in relation to the death of Raychel, the Trust does [and I quote] not accept that it or its staff

were negligent or that if there was any failure to apply appropriate standards or that the failure caused or contributed to the death of Raychel Ferguson, and therefore liability is denied."

In this open letter, the Trust go on to state:

"The Trust is, however, acutely conscious of the emotional trauma involved in any litigation and of the tragic circumstances of this particular case. Accordingly, it is and remains prepared, on an ex gratia basis without admission of liability, to pay compensation to the plaintiff.

"That is not an admission of liability [they say], but we do hope that the plaintiff will be able to respond to our client's willingness to resolve this litigation on that basis, remaining safe in the knowledge that the inquiry is going to deal with all aspects of the Trust's care and management of Raychel Ferguson."

We say this family did not bring a legal action against the trust to get money. That's clear. They brought an action to get to the truth. They want the Trust to acknowledge that there was negligence on the part of the staff, that there were errors and omissions in relation to the system that was in place at the time of Raychel's death. There was an inquest into her death

in February 2003, during which a report from Dr Warde, we've already heard about this, compiled for Altnagelvin Trust into the death of Raychel was not disclosed to the coroner, nor was he called as a witness before the coroner.

Was this because he identified Raychel's vomiting as "severe and protracted" and stated that there should have been electrolyte measurement and an accurate estimate of fluid balance. Is the failure to release this report to the coroner part of an attempted cover-up by the Trust? We would like to hear the reasons why they didn't release it and, in view of the contents of that report, which they had before they denied liability in the action brought by the parents, why do they continue with such a stance? Why do they still deny liability?

We know that the system has now been changed, we know that Solution No. 18 is no longer in use, but what the parents want is an answer as to why Raychel died. We know that other children -- in fact many, many children -- are admitted to Altnagelvin for surgical procedures and that those procedures were totally successful. What we need to look at is why Raychel's treatment failed.

We're going to hear from a number of experts whose

evidence has already been outlined in the detailed opening you have just heard from my learned friend. And with the greatest of respect, what we must not do is miss the main points and become swamped in the details of this case. This is an inquiry into hyponatraemia-related deaths. The main point of the investigations relates to fluid management and mismanagement. Of course, there are other issues that must be developed and investigated and Mr and Mrs Ferguson welcome the fact that the inquiry will carry out a full and thorough investigation into Raychel's death.

They have already attended this inquiry to hear a considerable amount of the evidence in relation to Adam Strain and Claire Roberts and they can see that the inquiry has dealt with the deaths of those two children thoroughly and comprehensively.

Mr and Mrs Ferguson have no background in medicine and science, therefore they rely on the experts to provide an explanation of what happened, who was at fault, the problems with the system, and how all of those problems can be addressed. They are acutely aware that had proper investigations been carried out, then a number of children involved in this inquiry would not have died.

Like the other families involved in this inquiry, the Fergusons want to ensure, as far as is humanly possible, that no other family has to suffer as they have suffered in the past 12 years. They want this inquiry not only to point the finger of blame at those individuals who should carry the blame, but they also want the system addressed. They don't want just the individuals on the ground, those directly treating Raychel, for example the doctors and the nurses, to bear all the responsibility. They would also like the inquiry to identify those in control of the system and the management structures and who were ultimately responsible for the failure in the system. This is a system failure and negligence on behalf of the staff on the ground.

The system undoubtedly failed Raychel and they want a full and frank investigation of how that occurred and who was responsible for that failure. They already recognise, as the chairman of the inquiry stated on Day 47 to Dr O'Hare, that the position in Northern Ireland has changed, largely because of the death of Raychel. This led the Department of Health to establish a working party which came up with new guidelines.

The parents want me to state that they want to

remember how Raychel lived and not how she died, but they do take solace from the fact that lives have undoubted been saved as a result of Raychel's untimely, unnecessary and totally avoidable death.

To demonstrate the failures in the system at around the time Raychel died, let's look at the following quote:

"There is also a mistake in the calculation of the ongoing cumulative fluid, which the patient received. This would be understandable if it had occurred after the emergency at 3 o'clock, but in fact the inaccuracies precede that emergency. There is no obvious indication to suggest that the nursing staff were under excessive pressure and excessive workload up to that point. If they were, then the staffing of the ward would need to be addressed."

Just as an aside, we've heard my learned friend opening the case in relation to how there were problems with the fluid. The point we make, and I go back to the document, is this letter was written almost a year before Raychel died. It is, of course, very relevant to Raychel's case, but it's not about Raychel. That comment, in fact, comes from the Lucy Crawford files, and can be found at reference 043-062-126. No need to bring that up at the moment.

It's a letter from Dr Anderson, the then clinical director of Sperrin Lakeland Trust, to Mr Fee, the director of acute hospital services at Tyrone Hospital. It's dated 17 July 2000. Had this investigation into the death of Lucy been properly followed up, Raychel may have been celebrating her birthday on Monday.

Let's look at the family's approach to the inquiry. The family appreciate the fairness of the investigations carried out by the inquiry team. They, as ordinary people dealing with a massive volume of documentation, see the case in simpler terms. The issues that they feel are relevant are, one, should Raychel have had surgery at all? This issue is fully covered in the report from Mr George Foster, MD, FRCS, expert in general surgery and a qualified paediatric surgeon. He's been referred to by my learned friend extensively throughout her opening address.

He has been retained by the inquiry to give evidence on this and on a number of other issues. Some might say that this inquiry is only about fluids and this issue about whether or not she should have had an appendicectomy is a side issue. We say that this is an area of concern in that a general anaesthetic leads to the use of opiates that may cause vomiting, that could lead to electrolyte imbalance and, thereafter, the

mismanagement of fluids that could lead to death, and certainly it did in Raychel's case.

The bottom line is that he is critical -- that is Mr Foster is critical -- of the fact that Raychel was the subject of surgery at midnight on 7 June 2001. He raises a number of issues that we say will be very difficult to rebut. In a nutshell, he says that Raychel should not have had surgery. I will expand on this later.

Why was Raychel not seen by a consultant or a senior doctor? She was in the hospital from early evening of 7 June until she was beyond help in the early hours of the morning of 9 June. She was admitted under the care of Mr Gilliland, the surgical consultant. However, he never saw her at any time during her stay at Altnagelvin. It would seem that he was never informed that she had been admitted under his care and he didn't even know she had died until 11 June. To make matters worse, he didn't attend the meeting of 3 September when the family met the Trust representatives to enquire about Raychel's death. Just for information, this was a meeting set up by the Trust to provide an explanation and to which Raychel's mum attended.

He confirms that he was informed about the meeting, but didn't attend as he did not think he could

materially contribute. Well, as it turns out perhaps he couldn't contribute as Mr Foster now makes the point that Mr Gilliland was not aware of the danger of infusing hypotonic fluid in children who had prolonged vomiting. That appears in Mr Foster's report.

Number 3. Severe vomiting. There is no doubt that Raychel suffered from severe vomiting throughout 8 June. This is one issue that Mr and Mrs Ferguson are extremely upset about. It would seem that the records, for what they are, didn't record a number of vomits reported by the parents, particularly those at 11 am and 12 noon. Neither was the vomit observed by Dr Devlin at some time between 15.30 and 18.00 hours recorded. Again, a vomit noticed by Nurse Bryce at just after midnight, 35 minutes after midnight, on 9 June, was not recorded. However, seven vomits were recorded on the fluid balance record. To make things totally clear, Mrs Ferguson personally recalls vomiting at 1100 hours, 1200 hours, two further vomits between 1200 hours and 1500 hours, and two vomits after 1545 hours.

We also have the vomits observed by the staff, that is Dr Devlin and Nurse Bryce. That would mean that there were eight vomits that were not recorded. The notes are a complete disgrace. The recording of vomits is totally inadequate. But the main point is that

no one in the staff -- and I repeat, no one on the staff -- seemed to be aware that when a child is vomiting, the electrolyte and fluid balance needs to be rapidly addressed and the type of fluid reassessed.

The fluids that she was receiving and the rate of infusion was totally and completely wrong in the circumstances. I add here that even the fact that the coffee ground vomiting seen by Nurse Gilchrist at 2100 hours didn't ring the alarm bells at that stage. In fact, the surgical team had got it right when they prescribed Hartmann's solution initially, but it would seem that they were talked out of this prescription by the nursing staff, who told them that Solution No. 18 was the solution of choice on the paediatric ward. I am certain that we're going to hear a lot about this when the evidence is given.

There seems to be a complete and utter lack of understanding about fluid balance and the choice of fluids at this time. Even though Mr Gilliland, the surgical consultant, was not called to attend Raychel, he states in his statement that if a child vomited more than twice, then the SHO in surgery should be contacted. He has stated that, Mr Gilliland.

No attempt was made by the nursing staff to do this, however the most worrying situation is that

Mr Gilliland, as a senior consultant, also states that he was not aware in 2001 of the dangers of infusing hypotonic fluid in children who had prolonged vomiting.

Just to deal with that in a little detail, Mr Gilliland seems to be saying in his statement to this inquiry that he wasn't aware at this time, in June 2001, of the dangers of infusing hypotonic fluid in children with prolonged vomiting and the point being: if he wasn't aware, who would be aware?

The parents want this answered. Does this mean that the man in charge of the surgical team does not possess the basic knowledge of fluid balance? Mr Foster comments on this statement, and this is what Mr Foster says about the lack of knowledge:

"I really don't believe he means this."

Meaning that Mr Foster doesn't believe that Mr Gilliland has actually left himself without that knowledge. Does that sum it up? This issue needs to be thoroughly investigated.

Number 4. Fluid rate. I have no doubt that this inquiry will find that it was completely wrong and negligent to continue to infuse Solution No. 18 into a child who was constantly vomiting. This should have been recognised by the ward staff and the fluid should have been changed to Hartmann's solution or some other

suitable fluid. None of the experts have challenged that solution, none. However, there is another problem in the case, in that it would also seem to be totally and absolutely clear that the infusion rate was also wrong. Again, the experts have not challenged this.

The inquiry experts, Mr Foster, Dr Haynes, the consultant anaesthetist, and Ms Ramsay, the nursing expert, have all concluded that setting a rate of 80 millilitres per hour is in excess of Raychel's maintenance requirement of 65 millilitres per hour. This calculation is set out in page 30 of the inquiry opening for ease of reference. Raychel's total daily fluid requirement was 65 ml per hour, not the 80 ml per hour that she was given.

Just to make this clear, Mr Chairman, if she gets 80, then she's 35 per cent more than she should be getting. But to make matters worse, Mr Foster holds the view -- and no one has demurred from that stance, that post-operatively Raychel should have been receiving fluids at a rate of 52 ml per hour. This is to do with the well-known complication of ADH. And what I say here is that therefore what he has said in his report is she should be getting 20 per cent less than the calculated rate of 65 ml per hour.

What that means is that, on our calculations, she

was getting 54 per cent more than her calculated requirements in the form of hypotonic saline. So she was getting 54 per cent more. What I'm saying here is she was getting 80, she should have got 65 on the calculated rate, but the experts, certainly Mr Foster, is telling us that, because she's post surgery, she should be getting 52 ml per hour. What this means is she's getting 54 per cent more than the calculated requirements at that time.

When you couple this with the electrolyte loss from vomiting, this would accelerate the haemodilution and the onset of electrolyte changes. For ease of reference, Mr Chairman, this is fully set out and explained on pages 44 and 45 of the inquiry opening.

Mr Foster, the expert, has calculated that she's getting almost a third more than the accepted rate, but the true calculation is 54 per cent more than the accepted rate when you take into account the reduced rate for ADH. Therefore, not only was she getting the wrong fluid, she was being infused at a rate of 54 per cent more than she should have had.

In effect, Raychel had no chance. She was getting the wrong type of fluid at the wrong rate and at 54 per cent more than she should have got it.

We will hear that a number of doctors attended

Raychel on the 8th, including doctors Devlin, Curran, Butler and Zafar. None of the doctors or nurses noticed the mistake in the infusion rate. No one did a secondary check. So once the infusion had been set by the anaesthetist after the surgery, no one bothered to check it up.

Paragraph 5. The parents feel very strongly that they were not told the whole truth about Raychel's death. They feel that Raychel was killed by Altnagelvin Hospital. They attended a meeting on 3 September 2001, but they got nowhere near the truth. The consultant, Mr Gilliland, didn't bother to attend the meeting. Those who did attend denied that they or their colleagues had done anything wrong. We should note that this is still the formal stance of the hospital trust, notwithstanding all that we now know and the reports that they now hold.

What they did do was completely ignore the fact that Raychel was suffering from severe and protracted -- those are Dr Warde's comments -- vomiting and it would seem that no one had the required level of knowledge to change to the correct type of fluid or enough sense to alter the fluid rate.

Clearly, this was negligent. Infusion of the wrong type of fluid at an excessive rate led to Raychel's

death. Of course, everyone now points the finger at someone else, but the parents have carefully read Dr Foster's report and even as people with no prior knowledge of science or medicine, they can see that mistakes have been made and that staff have been criticised.

I intend to briefly analyse Dr Foster's report and his most recent addendum with a view to pointing out some of those criticisms.

Then I go on to number 6, the medical notes. At the meeting of 3 September 2001 and the issues regarding -- the medical notes, the meeting of 2001. The issues regarding the notes are probably best left to governance, which will be dealt with later by this inquiry. But I feel that something has to be said in this opening to allow a full and frank investigation of those notes to be carried out and for them to be assessed in relation to the clinical issues.

The bottom line is that there are no notes worth talking about. It is hard to believe that during 8 June 2001, when Raychel was desperately ill and continually vomiting, that only one sentence of notes appears in the clinical records. The only note in the clinical file prior to Raychel having a fit at 3 o'clock in the morning on 9 June is an untimed and barely

initialled one sentence note made by Mr Zafar, surgical SHO, which states:

"Post appendicectomy, free of pain, Apyrexial. Continue observations."

That's it, eight words. That's it for the whole day. She gets eight words and, by 3 o'clock the next morning, she is dead. The next note is an urgent note made at 3.15 on 9 June by Dr Johnston, who had been summoned when Raychel suffered a fit. It seems that we will now hear from Dr Zafar that he gave verbal instructions. Why did he not note those instructions? If they were given, then why did the nurses not note them? Why did the other doctors who were called during the day -- and we can see the timeline that we've had up most of the morning. Why did those other doctors, who were administering drugs, not take any notes? Why did they not make any notes on the clinical records?

It is clear that there is a complete and utter lack of training, lack of care and lack of appreciation of proper note taking at Altnagelvin Hospital.

The nursing notes are little better and in relation to requests for assistance from the nurses to the doctors. At page 13 of his report Mr Foster says:

"I cannot find any written confirmation on any contemporaneous nursing record of these requests for

medical assistance, their timings or outcomes. There is uncertainty regarding the time of Dr Devlin's visit. When Dr Devlin wrote up the ondansetron, no time was recorded and he made no note at all on the clinical file. To make matters worse, Dr Devlin has stated that when he saw her in late afternoon, he was told that Raychel had been vomiting, but had been drinking fluids. When he saw her, he recalled [he actually recalled and has stated] that she was actively vomiting, but there is no record in the fluid balance chart of this vomit."

There is no evidence that Dr Devlin looked at the fluid balance chart or considered it necessary to consult a senior colleague about what was now, at least, five episodes of vomiting. And I make the point: those are the episodes that have been recorded plus the episodes that the mother and father witnessed and plus the vomiting that he himself was witnessing at that time.

Finally, Mr Gilliland accepts that, prior to June 2001, there was no formal advice given to new members of the surgical team regarding hyponatraemia, post-operative fluid management or record keeping. I have to say, Mr Chairman, the parents find that completely irresponsible on behalf of the hospital.

This brings me finally to one of the most important

issues. Why were no blood tests carried out? This is central to the issue of hyponatraemia. By means of a simple blood test, the drop in sodium would have been immediately revealed and hyponatraemia recognised as a problem. The very sad truth is that had anyone had the sense to order a blood test at any time on 8 June, then Raychel could probably have been saved. Even as late on as 9 or 10 o'clock at night, there's still evidence that the situation was retrievable. It wasn't until the blood test was taken after she fitted in the early hours of the morning that her drop in sodium was revealed.

We know that Dr Curran arrived on the ward at 22.15 and prescribed cyclizine, which was administered at once, but of course there's no nursing record to confirm the doctor's visit, its timing and the action taken. Dr Curran himself made no note of any of it in the clinical pages of the file, so he made no note at all. The only confirmation of this is that we have a statement from Nurse Gilchrist.

The whole course of treatment and nursing care was a complete and utter inadequately-documented shambles. If the child was suffering from excessive vomiting, as Raychel undoubtedly was, then someone should have ordered a blood test. It was clearly negligent not to

do so. No one took control of the situation, the parents' pleas, many of which there are in their statements, about excessive vomiting were ignored. Despite the fact that Raychel was given drugs to stop her vomiting, no one thought of the more dangerous implications of that condition.

What the Ferguson family will have to hear is a continuous stream of evidence along the lines that Raychel could have been saved if anyone had the good sense to order a blood test. Not only that, there were numerous opportunities to recognise that Raychel was slipping away and someone should have done something about it. By the time she had the fit in the early hours of the morning, around 3.15, it was probably too late, but even then there may have been some emergency action that could have saved her life, if not all of her faculties.

Then I would like to deal with the conclusions reached by Mr Foster, the inquiry expert. We would submit that Mr Foster has dealt with Raychel's treatment history and tragic unnecessary death by applying his medical expertise, but he has discussed it in a factual way that makes it easy to understand. Therefore, I deal with the issues that Mr and Mrs Ferguson and the family circle see as relevant for the family to address. The

following is a list of questions that the Ferguson family have for the inquiry that arise out of Mr Foster's report and out of their own analysis of the papers and recollection of the events as they saw them in the days that Raychel was in Altnagelvin.

The first point is that Dr Foster, in concluding his report, has addressed a number of areas in which he says the surgical care of Raychel "fell below a satisfactory standard". Those are his words:

"There are ten general points where the care fell below a satisfactory standard and 13 specific points where the care fell below a satisfactory standard."

Dr Foster is clear in stating that there is no criticism of the actual surgical procedure that was carried out, that is the appendicectomy was carried out satisfactorily and successfully in that the appendix was removed and Raychel was returned to the ward.

The parents do wonder why it took so long for her to come back, so perhaps the inquiry could look at the drugs that were given before, in A&E, and during the surgery, and the length of the recovery period because that is concerning them.

More importantly, the parents want to address the fact that Mr Foster has questioned the decision to operate after she attended A&E on 7 June. There was

a very short history of symptoms and there were no signs of inflammation on blood testing, that is the white cell count was normal. There was no temperature, no rise in pulse rate and therefore it is questionable as to whether or not surgery should have been done.

Of course, also, Mr Chairman, remember that by the time she got to surgery, she was no longer in pain. Further, Raychel had been given a strong painkiller and by the time she got there, she was no longer in pain, and therefore, given that the decision to operate was made at a senior house officer level without consultation with a senior doctor, it is difficult to understand why this surgery was proceeded with.

The fact that it was proceeded with without consultation with a senior doctor, which is contrary to the National Confidential Enquiry into Perioperative Deaths, NCEPOD. This is a 1989 report, which states:

"Consultant supervision of trainees needs to be kept under scrutiny. No trainees should undertake and anaesthetic or surgical operation on a child without consultation with their consultant."

THE CHAIRMAN: That's 12 years before Raychel was treated.

MR QUINN: Yes, it's 12 years before this surgery was carried out. What we say is: this is even more relevant when one considers that there was some doubt as to

whether or not the appendix had anything wrong with it. And it should be recalled that the final histology report on the appendix confirmed:

"An entirely normal appendix."

So therefore, there's no doubt that this appendix was normal. It would therefore seem likely, and it follows from that reasoning, that Raychel didn't require an appendicectomy at all, that this surgery was done without consultation with a senior doctor and was contrary to the NCEPOD recommendations. So therefore, Mr Chairman, there's a number of faults in this.

There certainly was no consultation, and I'm going to come back to that point later. It was done against the recommendations and, in fact, by the time she got into surgery, the subjective signs were that she shouldn't have had surgery. Mr Foster deals with this and concludes on page 6 of his report:

"To conclude this section, I believe that the decision to operate here was made by a junior surgeon without good evidence and without consultation. On balance, I cannot help but conclude that this operation was unnecessary and, if deferred, would likely have never been performed."

Mr Chairman, we submit it couldn't be clearer.

The inquiry is impelled to investigate this decision

in relation to surgery and also, (a), why did Dr Kelly, who first examined Raychel in the Accident & Emergency department, who was a relatively inexperienced doctor, decide to administer intravenous Cyclimorph, which is a commonly used combination of morphine and cyclizine. This is a powerful analgesic and would likely cause difficulties in evaluating symptoms and findings later on. Why didn't he prescribe simple paracetamol?

The next point is: why did Mr Makar decide to operate given all of the relevant circumstances? And what I'm doing here is I'm going through Mr Foster's report and making the points from that report.

Mr Makar described the appendix as obstructed, but the inquiry expert Mr George Foster dismisses this, saying, and this is a very interesting quote:

"I believe Mr Makar was using it [that is the description of the appendix] retrospectively to justify operating on a child with a very short history of pain. After all, once you bear in mind that Raychel was in a hospital where repeated examinations and vital sign recording could be done, blood tests (all initially normal) should be repeated when required and imaging done if necessary. Proteinuria had been noted and urine microscopy should have been performed."

That appears at page 7 of his addendum report.

The lawyers in this room may look at this subject and comment that it is not really relevant to your hyponatraemia investigation. However, the public at large -- and certainly the family -- see this as a very relevant issue and they want the actions of Mr Makar fully investigated. It is also relevant that out of this, two other very relevant topics arise.

The first one is that Mr Makar has averred in his statement that he did in fact discuss his plans for the surgery in the course of two conversations with the general surgical registrar, Mr Zawislak. Mr Zawislak now emphatically denies that he was contacted by anyone to discuss Raychel's case and states that he definitely would have remembered such an event had it occurred.

It's also relevant, I'll add this in, that Mr Gilliland who investigated this immediately after the death of Raychel never mentioned it in any of his investigation reports or his statement. This is an issue that must be fully investigated by the inquiry as there is now a direct conflict between Mr Makar, who said that he contacted Mr Zawislak, but Mr Zawislak emphatically denies that he was ever contacted in such terms. It is very relevant because it really goes to the heart of the surgical procedure and whether or not Mr Makar was in fact dealing with the case in accordance

with the NCEPOD recommendations.

THE CHAIRMAN: And to put it bluntly, your proposition is to query whether Mr Makar has belatedly introduced a reference to Mr Zawislak in order to cover his back?

MR QUINN: Exactly. That's exactly what we're saying. Because it would look as though this was a very late addition to his statement and certainly wasn't picked up by Mr Gilliland when he reported on the matter or the police or the coroner.

My second point arising out of this is: not only is there criticism of the notes, the notes are added to after the event. This is probably a matter that should be dealt with during the governance hearings, but the family are very upset when they consider that Dr Nesbitt, the then clinical director of childcare, and who was the consultant anaesthetist at Altnagelvin, directed the assistant anaesthetist involved in the surgery, that's Dr Claire Jamison, to add to the anaesthetic case notes after Raychel's death.

That retrospective note dated 13 June appears at 020-009-016. I don't think there's any need to bring it up. What it records is that Raychel receives 200 ml of Hartmann's solution during the surgery. To be fair, the retrospective note is properly signed and dated. However, the Ferguson family want to know why Dr Nesbitt

made such a direction when he was not involved in Raychel's care until very much later, and want to test Dr Jamison's recall of this, given that she left the operating theatre before the surgery concluded and, in her statement to the coroner, initially stated that Raychel received 300 ml of Hartmann's solution. It's relevant as someone now recognises that fluids are going to be a very, very serious issue in this inquiry and throughout the investigation of Raychel's death.

The next point is: was there an incorrect calculation of the intravenous fluid volumes? I've dealt with this earlier in detail. I've already pointed out that Raychel was receiving approximately 35 per cent more fluid than was appropriate on the base calculation. But the point we're making is that, on Mr Foster's figures, which seem to be accepted, she's 54 per cent above the correct rate. There were a number of junior doctors called to examine Raychel and stop her vomiting and several of them administered drugs to stop the vomiting. There was Dr Joe Devlin, Dr Michael Curran, and Dr Butler and Mr Zafar who did the ward round. Then, of course, there are all of the nurses who were in charge of Raychel that day. Why did no one check the intravenous fluid rate, which remained uncorrected for more than 24 hours? Why was that basic procedure not

looked into?

The next point is that the use of intravenous hypotonic solutions in a vomiting patient is highly dangerous, and this is made clear by Mr Foster in his report. However, the danger of this was not recognised by the nursing staff, nor the junior doctors, and it seems that even her consultant has a problem in understanding this issue. How could this point have escaped their basic training and we await the findings and recommendations of this inquiry to hopefully ensure that this doesn't happen again and also to investigate how it did escape their basic training.

The next point is that in spite of the frequency and the volume of vomiting, no blood tests were done throughout 8 June. Mr Foster is very critical of this and the point is that had a blood test been done, particularly in the late afternoon of that day, it would probably have shown that Raychel's sodium level had dropped to a dangerous level. When blood tests were eventually carried out in the early hours of the morning, the sodium level had dropped to 119 at 3.30 am, and then, when they had a repeat test at 4.35, it was 118.

This was well below an accepted level and represented a grave danger to Raychel. She was at this

stage suffering from hyponatraemia. The situation at that stage was probably irretrievable. Why did none of the staff recommend the blood test, particularly in view of the excessive vomiting? Why did they not order a blood test to be carried out, given there were so many nurses and so many doctors who saw her that day?

The next point is that it seems that there were no attempts made to measure the estimated volume of vomit and in fact there was absolutely no effort made to measure the volume of any liquid such as urine that was lost. We know that she did go to the bathroom, but nothing was done in relation to measuring the volume. How could basic training have missed this point?

The next point is really one of the main points, and that is: why did none of the junior doctors not send for more senior staff at an earlier stage? Mr Foster is highly critical of the staff on this issue, as is Dr Scott-Jupp and as are the other experts. We say this failing should be thoroughly investigated and I make it at this stage, and I'll deal with it and expand it later, because even the consultant in charge, Mr Gilliland, will say that after the second vomit, something should have been done. It's that point, the second vomit.

The next point is that Raychel suffered a fit at

around 3.30 am. She was examined by the paediatric doctor, she was given prompt attention and he recognised that there probably was brainstem damage at that stage. This was a critical event and the child was about to be transferred to Belfast, but it took one and a half hours for the surgical SHO and registrar to appear. Mr Foster has criticised this and I've listened to what you have said and my learned friend, Mr Chairman, but the point is that there was nothing put in place at the time where the bleeps could be answered. And during the time that the resuscitation team, comprising of the junior house officer, the paediatricians up to consultant level -- Dr McCord was there -- and the full anaesthetic team were in place, Mr Foster comments that the surgeon should have been present to give support to the team. Where was the consultant surgeon?

Mr Foster states and I quote this, and I want this recorded:

"I cannot believe [that's what he says] that Mr Zafar and Mr Bhalla did not contact the on call consultant."

It's not the on call consultant's fault if the junior staff don't contact them, but that's what Mr Foster states: I can't believe that the staff didn't contact the consultant. And he states this is:

"A very serious issue. It is an oversight by those doctors."

The next point is that the ward round -- a very basic point -- that was conducted on Ward 6 by Mr Zafar -- his note was extremely brief. He allowed Raychel to continue to receive both Solution No. 18 and at an infusion rate of 80 ml per hour. Perhaps that should have been looked at by Mr Zafar.

The next point is that, as we see it, the recurring theme throughout the experts' reports is that Raychel could probably have been saved had she been reviewed by an experienced competent doctor later on in the day. We know that after the second vomit, which occurred relatively early, that someone should have been called to review her. But it gets worse in the afternoon because she's continually vomiting, and this gets to the crux of the issue: who was managing her care? Had the nurses and doctors realised that Raychel was in deep trouble, as evidenced by the headaches and listlessness, as well as the vomiting, then they would probably have asked for a review from a more senior doctor. It is evident that no one took control. There is a complete lack of authority. If a blood test had been carried out, her electrolytes would have been checked and it would have been observed that her sodium level had

dropped. Of course, we now know that the surgical team didn't answer their bleeps. This is totally and completely unsatisfactory and has been heavily criticised by the experts.

But we must also criticise the nursing staff. The junior doctors cannot take all the blame as they were only called to answer emergencies and to administer drugs. It was the nursing team who were observing Raychel on the ground, on the ward at that time. When Dr Curran saw Raychel later in the afternoon, he should have been informed by the nursing staff that Raychel had been vomiting coffee grounds, which is a serious condition and which would immediately alert a doctor that further investigations were required. Coffee grounds, as you know, Mr Chairman, is really blood that's coming up and put into small grounds and regurgitated. It would seem that Dr Devlin acted appropriately but that Dr Curran should have recognised the problem and taken matters further, though I would add that he seems to be hamstrung by the nurses' failure to make a full report on the vomiting.

There can be no doubt that Raychel was very ill. Not only do the family confirm this, but the friends and neighbours who visited, such as the Duffys, the McCulloughs(?), and her godmother, Margaret Harrison.

All comment on her lack of vitality and response and the word "listless" is used. They also comment on the level of vomiting. Mr and Mrs Ferguson don't accept the nurses' position on this matter. Mr and Mrs Ferguson say that they are wrong in relation to their assessment. Sister Millar, nurses Roulston, Gilchrist, Bryce, Noble and McAuley can't be correct when they indicate little concern about Raychel's demeanour.

THE CHAIRMAN: In essence, you say it doesn't even seem right that a girl who's regularly vomiting is also described as being bright and cheery.

MR QUINN: It just can't be right. We say it just cannot be correct. The other point is even more basic than that, and this is where I say that the nurses have to stand up and take some liability in this case, some responsibility for what happened. Even if they got the demeanour wrong, how do they not recognise the need for medical intervention after the second vomit when all of the consultants, all of the experts, all recognise that the vomiting should have not been allowed to go on?

This is supported by a number of experts who have commented on this, including Dr Haynes, Mr Foster and Ms Ramsay, as does the surgical consultant, Mr Gilliland. What happened later, that is Raychel fitting, demonstrates that the nurses' assessment was

wrong. She just went downhill, Mr Chairman. Even if their assessment of her demeanour was correct, they still must call for assistance after the second vomit. But we now know that not only was there a second vomit, we know that there were many, many recorded vomits and that it went on through the day. They were negligent not to do so. Raychel's life could have been saved if anyone had taken time to look at her care, look at her case and recognise that she had serious problems.

On page 40 of his report, Mr Foster states, and I quote carefully:

"Personally, I believe that in a specialised paediatric ward such as this, the nursing staff themselves should have told the doctors of their concerns. I cannot understand why they regarded multiple episodes of vomiting as the normal post-operative course of a mild appendix case. There was obviously confused communication between the nurses and each other and the mindset that did not seem to accept that a serious problem was occurring. Dr Curran, I believe, should on his own initiative have approached a senior colleague, but Dr Devlin did all that could have been expected of him."

That leaves you, Mr Chairman, to test this evidence in relation to what happened that day on the ground

in the ward and test the evidence of the witnesses who saw this child, the family who were looking after her, and the nurses who are going to give evidence about this.

Moving to another point, the note taking. The record keeping and the communication between the staff and the parents was a complete and utter mess. That's all you could describe it as. There seems to be a complete lack of training, direction and coherence, and Mr Foster makes the point and goes through them in bullet points. Dr Makar, what did he do? He took a history and wrote an operation note only. Mr Zafar took a brief recording of his visit on the morning of the 8th and Mr Foster states that these notes are "barely adequate". There will now be an issue as to whether he verbally told the nurses about the care that was required, about the volume reducing and the liquid sips being given, because he didn't know any of that.

Moving to Dr Devlin. Apart from a drug chart entry, Dr Devlin made no notes on the clinical file, and this, according to Dr Foster, is unacceptable practice. Again, he's critical of this practice. No note. Dr Curran, apart from a drug chart entry, made no note in the clinical file and this also is, he states, unacceptable practice. Unacceptable.

There are also issues in relation to the lack of any nursing note or record that the relatives requested to bleep Dr Zafar and relating to the visits of Doctors Butler, Devlin and Curran, together with the timings of those visits. What that means is that here were the nurses calling doctors to give medication, but nobody has noted it. So we don't have a record of what actually happened.

THE CHAIRMAN: So as each doctor comes along, that doctor doesn't have a clear picture of what was going on earlier.

MR QUINN: Exactly.

THE CHAIRMAN: Because the notes, if they're there at all, are inadequate.

MR QUINN: Well, no one notes what was given on the clinical records so no one notes what Raychel was given before. The nursing notes -- they haven't recorded who they've bleeped in to give the medication so they don't know, there's nothing in those notes to indicate what happened before. It's a complete and utter shambles.

THE CHAIRMAN: So if you're the third or fourth doctor who's called to intervene, you would realise that the problem was growing in its seriousness, provided that you knew you were the third or fourth doctor --

MR QUINN: Of course. Only provided you knew that you were

coming behind another doctor and another doctor and another doctor. But that's the point I'm making. The nurses were on the ground the whole time. So therefore, we say it would seem that the level of note taking and communication was unacceptable. Not only is Mr Foster critical of the note taking and communication between the staff, he also records that he is disappointed at the communication that took place between the surgical team and Raychel's parents. When Raychel suffered a fit and it was obvious that she was seriously ill, the consultant on call should have attended and seen Mr and Mrs Ferguson urgently. The surgical team should also have been present at the meeting with the family in September 2001.

I come to an end by stating what the inquiry expert, Mr Foster, finishes his report by stating, and I quote again:

"As I think I have demonstrated in this analysis of this case, the system in place in June 2001 had serious flaws."

Serious flaws. So what we have is Dr Foster criticising a number of doctors and nurses for unacceptable practice and notes that are barely adequate. But he states that there are serious flaws in the system that was in place in Altnagelvin

in June 2001, yet we still have a case where the civil claim is denied and there are letters going back and forward to the parents saying that they don't admit there's any fault on behalf of the staff.

The inquiry expert Mr Foster may have concluded his report, highlighting those serious flaws, yet the hospital deny all of this. They deny anything is wrong with the system. They deny their staff were negligent. They deny they contributed to Raychel's death. How can that be? Why did a healthy nine year-old girl die in a modern hospital with a full complement of nursing and clinical staff? How could that be? Why did it happen and who was responsible? It didn't just happen. There must be reasons for it happening and we ask why.

The Ferguson family now want the full unexpurgated truth about their daughter Raychel's avoidable death to come out, the truth unadulterated, the complete truth plain and simple, painful for them as it may be. Thank you, Mr Chairman.

THE CHAIRMAN: Thank you, Mr Quinn.

You have heard, ladies and gentlemen, Mr Quinn's detailed opening and you've heard Ms Anyadike-Danes give a summary of a much longer, complex analysis and summary of the issues and the evidence which we have to address over the next few weeks. That brings an end to today's

hearing. I should say that I've been told in the last few minutes that we've now received Mr Gilliland's signed statement. I'm glad that's come through. If you stay for a few more minutes, we will arrange for that to be paginated and provided to everyone here so that you can take it away and you'll have it for the weekend. You know why we're not sitting on Monday, it would have been Raychel's 21st birthday, and unless anyone has any point to raise, we'll gather here on Tuesday morning, Tuesday 5 February, and we'll start with the evidence of Dr Kelly. Thank you very much.

(3.00 pm)

(The hearing adjourned until Tuesday 5 February at 10.00 am)

I N D E X