

8 November 2022

Baby D

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Tuesday, 8 November 2022

(10.30 am)

(Delay in proceedings)

(10.39 am)

(In the absence of the jury)

MR JUSTICE GOSS: Good morning.

THE INTERPRETER: Good morning.

MR JUSTICE GOSS: Just so that I understand, Mr Driver, how this is going to work, there seems to be an interpreter here who is going to interpret into French.

MR DRIVER: It seems we have an interpreter at both ends of the link, which seems counterproductive.

(Pause)

MR JUSTICE GOSS: Well, we don't need two interpreters because everyone here can speak and understand English.

I imagine that probably everyone in that room, your room, can speak and understand English as well. And Dr Rylance can certainly, I believe, understand English.

Right.

So Mr Driver, which interpreter is going to carry out the interpretation?

MR DRIVER: With the greatest of respect to our interpreter, might I invite the Swiss-based interpreter to intervene and assist as and when required?

THE INTERPRETER: It's understood.

MR JUSTICE GOSS: Thank you very much. So from our perspective, there is no need for the interpreter present in Switzerland to take an oath or make an affirmation in relation to the interpretation because this is not for our benefit, the interpretation, it's for your benefit. Is that acceptable?

UNKNOWN SPEAKER: Of course, yes.

THE INTERPRETER: Yes, it is, your Honour.

MR JUSTICE GOSS: I'll just check here: is that acceptable with everyone here?

MR MYERS: Yes, it is, my Lord, yes, thank you.

MR JUSTICE GOSS: Bear with me a moment. I'm going to release the interpreter who's present in court here.

Thank you very much for coming. I'm sorry that we won't need you. I don't know quite how this has come about, but there we are. Thank you.

It's quite apparent that it's very difficult to hear the interpreter speaking in Switzerland here, for us, not that we actually need to -- well, we do if Dr Rylance's answers are going to be interpreted back into English, if she is going to answer in French.

THE INTERPRETER: Your Lordship, our prosecutor, Mr Prosecutor, says that she (sic) will be able to answer everything in English directly to you.

MR JUSTICE GOSS: Right, thank you very much.

THE INTERPRETER: You're welcome.

MR JUSTICE GOSS: We'll do that then. I understand it's a requirement of Swiss law that you interpret everything into French.

THE INTERPRETER: Mr Prosecutor says that is the case in the eventuality that all of the members of the hearing here have to understand the English, but since everyone understands English, it's able to be carried out in English since Mr Prosecutor

speaks English as well as the clerk and so it does not need to be translated into French.

MR JUSTICE GOSS: Thank you very much indeed. Well, what we will do then is that if there is something that cannot be heard by reason of communication difficulties, technological communication difficulties, or there is some word or phrase that is not understood by anyone, would someone, please, in your courtroom just raise a hand and then we can see and an interpretation can take place? But otherwise there will be no interpretation unless anyone requests it for any particular passage.

THE INTERPRETER: We understand, your Lordship. Thank you.

MR JUSTICE GOSS: Thank you very much indeed. We're very grateful to you. Right.

So what's going to happen now is that the jury is going to be brought into court and we are going to proceed and the witness should be asked, in the presence of the jury, to take an oath or make an affirmation to tell the truth. That will be administered by someone in this courtroom. I think it should be an affirmation unless anyone suggests otherwise.

Then the prosecuting barrister, Mr Driver, will ask the witness questions. Then the defence barrister, Mr Myers, will ask some questions. Then if he so wishes, Mr Driver will then ask some more questions, and if I wish to ask any questions, I will ask questions.

That is the procedure with which the jury is very familiar and the only difference is that we'll be doing it over this link to you in Switzerland. All right?

Thank you very much. I thought it helpful to set that out before the jury come in. I'm just going to check with the barristers whether there's anything else anyone wishes me to say.

MR DRIVER: My Lord, we see on the screen, to the right above the witness's head, there's an icon, which we think, but we'd be grateful for assistance, suggests that the proceedings are being recorded in Switzerland.

THE INTERPRETER: Mr Prosecutor says normally, no, it is not being registered -- it's not being recorded. It's not being recorded.

MR JUSTICE GOSS: Right. Thank you very much. Good. We'll proceed then and I shall ask the jury to be brought into court.

THE INTERPRETER: Your Honour, your Lordship, I will just be sitting behind the prosecutor to translate everything to him in English to be sure that he's understood everything thoroughly. Just to let you know.

MR JUSTICE GOSS: Thank you very much.

(In the presence of the jury)

MR JUSTICE GOSS: Good morning, members of the jury. I'm sorry you've been delayed in being brought into court.

We've been sorting out the arrangements that are necessary in relation to the next witness, who is Dr Rylance.

Dr Rylance is in Switzerland. You, I hope, can see her in the room to the right-hand side of the screen and you should be able to hear her when she is asked to speak.

The gentleman to the left side of the screen is a prosecutor in Switzerland. It is a requirement of Swiss law, as I understand it, that when a witness gives evidence in Switzerland in relation to any proceedings in another jurisdiction, although the Swiss have no interest in the proceedings because it does not affect them, there requires to be a translation of the proceedings into French because it's a French-speaking part of Switzerland, so there is, just off screen to your left, someone who will be translating when required or interpreting into French and back into English. But the prosecutor has told me he can understand English, so there should be in difficulty or hindrance in that respect. All right?

Otherwise the proceedings are just as if the witness was here in England. Sometimes witnesses do appear remotely from places in the United Kingdom and when that happens juries are told, as I direct you, to attach no significance to the fact that the witness is not present in court but is giving evidence remotely over the link.

Just as I've said in relation to all witnesses, you regard the status of the witness as exactly the same whether they're present in court or appearing remotely or, if they are in court, they're screened from anyone and attach no significance that Dr Rylance, who lives and works in Switzerland, is not here but is in Switzerland when she is giving her evidence.

It'll be exactly the same procedure, examination-in-chief, cross-examination and re-examination, as we expect. The first thing that must happen is, of course, that the witness must make an affirmation to tell the truth. So can I ask, please, that that is done by the usher.

DR SARAH RYLANCE (affirmed)

Examination-in-chief by MR DRIVER

MR DRIVER: Dr Rylance, could I invite you to state your name, please?

RYLANCE: Yes. My name is Sarah Jane Rylance.

DRIVER: Can you see me clearly or would it be better if I stood to address you?

RYLANCE: I think I can see you. Are you the gentleman in the middle of the front row?

DRIVER: I'll stand to my feet now. Is that more clear?

RYLANCE: Yes, thank you.

DRIVER: I'm grateful. Dr Rylance, I understand that you were employed at the Countess of Chester Hospital in June 2015; is that correct?

RYLANCE: Yes.

DRIVER: What was your professional status at that point in time?

RYLANCE: So I was a registrar working at the hospital.

DRIVER: We understand that you worked a long day shift on Saturday, 20 June 2015; do you agree?

RYLANCE: Yes. That is what I have written in my statement, which was prepared from the medical notes, so yes, I would agree.

DRIVER: Dr Rylance, I'm going to direct your attention, if I may, to clinical notes compiled in relation to a patient called [Baby D]. Do you confirm that you have those clinical notes in front of you?

RYLANCE: Yes, I have some clinical notes here.

DRIVER: Thank you. If we look at the pagination in the bottom right corner, I think the first page of notes on this particular baby is numbered page number 9. Do you have that? For our purposes, it's behind tile 14.

RYLANCE: My pages seem to start at... Are you referring to the most -- the number at the bottom right-hand corner?

DRIVER: Yes.

RYLANCE: I have page 11. The part marked up for me as clinical notes starts at page 11.

DRIVER: Dr Rylance, is that an entry in your handwriting, dated 20 June?

RYLANCE: No. Page 11 starts with the writing of one of my colleagues and it doesn't have a date on it. I think...

I don't think I have... I'm just looking through all of the other pages. This has just been given to me recently, but I don't have... I don't have a page 9 with my writing on from that date.

DRIVER: Dr Rylance, you do have a copy of your witness statement; is that correct?

RYLANCE: I do have a copy of my witness statement, yes.

DRIVER: Could you give me one second, please, Dr Rylance?

(Pause)

In the absence of the relevant corresponding clinical notes, I'll take you through the part of your statement where you state that you had the opportunity to review the notes and you give a history of your involvement with [Baby D] on Saturday 20 June 2015.

RYLANCE: Okay.

DRIVER: But before we do that, could you take one more look through those clinical notes and see whether you have an entry in your handwriting, dated 20 June?

(Pause)

Dr Rylance, can you see images on a screen?

RYLANCE: Yes, I can. So that is my writing, yes. I think the notes that I have here, they start with my colleague's notes, which subsequently -- they're from the evening or the night of the 20th. So I think I'm missing that page there that you're showing me, but I can read my writing fairly clearly on the screen.

DRIVER: I'm grateful. We'll use the screen-projected note if we may.

This is a note recorded by you on 20 June, is it?

RYLANCE: Yes.

DRIVER: Is it a note that first sets out some information about the baby that was recorded immediately after her birth?

RYLANCE: Yes, that's correct.

DRIVER: Were you present at her birth or not?

RYLANCE: Not that I recall. I think -- so I'm only really able to go on what I've written in the notes, given the time that's passed. The fact that I've written "written in retrospect" and I've put that information there, if I'd been present at the birth I'm sure that I would have documented in the notes sooner than that. So I don't believe I was at the birth, no.

DRIVER: The information that you've recorded there sets out the time of the birth, her birth weight, and some of the details that pertain to her condition at birth. Is it your evidence that they were facts reported to you by somebody else?

RYLANCE: Yes, they would either have been reported to me by someone or I would have taken them from entries earlier on in the medical notes.

DRIVER: Thank you. If I ask Mr Murphy here in court in Manchester to allow us to look further down the note, please. Pausing there, we'll see an entry in your hand that begins with the words:

"Blepped again as midwife not happy with her colour."

Do you see those words, Dr Rylance?

RYLANCE: Yes.

DRIVER: Does this record that you were blepped to attend upon the baby?

RYLANCE: Can you scroll up a little bit so I can see what came immediately before?

DRIVER: Immediately before:

"Reviewed at 1.5 hours by SHO."

You were not an SHO at this point, you were a registrar?

RYLANCE: Yes.

DRIVER: "Grunting but otherwise [I can't read your handwriting] obs..."

Is that "okay and examined normally"?

RYLANCE: Yes, that's correct. So where I've written:

"Bleeped again as midwife not happy with her."

I am not able to say whether that was me that was bleeped again or whether that was the SHO that was bleeped again. From what I have written there, I can't remember.

DRIVER: Understood. The next entry reads:

"Brought [that is the baby] to unit for screen."

Does it read:

"On arrival to neonatal unit, looked dusky, poor respiratory"?

RYLANCE: Yes.

DRIVER: Are you able to say whether those facts were facts observed by you or facts reported to you?

RYLANCE: No, those would be facts observed by me.

DRIVER: Thank you. We'll proceed on the basis that the rest of this record are facts observed by you unless you tell us otherwise. Do you understand?

RYLANCE: Yes.

DRIVER: I'm very grateful.

So could you help us with the next paragraph of recorded notes, please?

RYLANCE: So I've written:

"Initial saturations 48%."

This is the oxygen saturations:

"Poor respiratory effort at about 7.30 pm. The baby was transferred into an incubator and given IPPV."

This is intermittent positive pressure ventilation, what we call bagging, with the Neopuff, so to try and stimulate her with her breathing:

"She pinked up quickly [so her colour was better] and started regular resps."

That means regular respiration, regular breathing.

DRIVER: Thank you. So they record your efforts to stimulate the baby?

RYLANCE: Yes, that's correct.

DRIVER: Were those efforts successful or not?

RYLANCE: Yes, from -- so she gained more colour and started breathing regularly, so yes, they were successful.

DRIVER: Thank you. Could you take us through the next part of the note, please?

RYLANCE: I have written "IV access obtained". That means intravenous access, so we put a cannula into her hand or foot. And then I've written the investigations which were taken. "Culture" is a blood culture, full blood count and CRP, which is a marker of inflammation. BM4.2 is her blood glucose level. And then at the time that we put the cannula in, we also take a sample from the blood which is called a blood gas and then the next -- the numbers there are related to the result from the blood gas that was taken.

DRIVER: Thank you. Are you able to provide us with an assessment as to the baby's condition based on your interpretation of that data recorded in that paragraph?

RYLANCE: So in terms of her clinical condition, she's responded well to the ventilatory support she's been given and has had a good response to that. Relating to the blood gas results, it's difficult to say how that reflects her clinical condition. So it's part of a number of things that we look at when we are making an assessment but it's not the only thing we would look at. So the blood gas, the numbers parameters in the blood gas reading are abnormal. They suggest that she has had some difficulty with her respiratory system, with her breathing, and also from her -- there is a metabolic component to the blood gas that is abnormal.

But I wouldn't use a blood gas in itself to make a clinical assessment, I think it's done in combination with her -- the rest of the clinical examination.

DRIVER: Thank you. Could we move to the final paragraph on page 9? What does that inform us of?

RYLANCE: So I've written "IV benzylpenicillin and gentamicin given", with a tick, which means I gave intravenous antibiotics, two antibiotics into the cannula that I'd just put in. She's transferred on to CPAP. CPAP is continuous positive airway pressure. It's a form of ventilatory support which is given to try and help babies to breathe and that will have been done because she had initially poor respiratory effort and although she has pinked up in response to the stimulation that she was given, I think we felt that she needed to have ongoing respiratory support.

Then I've written:

"IV bolus 0.9% NaCl."

Which is a bolus of normal saline through the cannula we've put in. I've documented the amount that we've given. So we give 10ml of fluid for every kg and she weighed 3.1 kilos, so she was given 31ml of fluid.

DRIVER: Thank you. Can we scroll further down the page, please?

Is that your handwriting?

RYLANCE: Yes, it is.

DRIVER: Could you continue to interpret the notes for us then, please?

RYLANCE: Certainly. So I've written:

"Gas bili on exchange line."

That means that on the gas -- the blood gas sample that was taken, the bilirubin level -- bili is bilirubin, when we're -- so bilirubin is a chemical that we find in the blood and in jaundiced babies and in order to decide what kind of treatment is needed we have a graph that we look at, which has various different lines on it in terms of what intervention would be needed, so whether they might need phototherapy to correct their jaundice.

So when I have written "on exchange line", what it means is that there is a line on that graph that would suggest that she might need to have an exchange transfusion if her jaundice continued to develop. So in order to try and prevent that, because that's quite an extreme form of therapy and this is the first time that

we have checked her bilirubin level, we've started her on -- the photo of me in the room I'm in is blocking a little bit -- I think it says, "Started on triple", I imagine it says phototherapy --

DRIVER: "Lights."

RYLANCE: Lights? Okay. So the phototherapy lights that we use to treat jaundice, you can use one set, two sets or three sets. So we've started her on the maximum treatment to try and bring that bilirubin level down.

DRIVER: Thank you. Let's move to the next paragraph. It begins with the words, I think, "Currently on CPAP".

RYLANCE: I'm documenting then -- so at that point we've moved her on to the CPAP machine, which was started at 8 o'clock in the evening, and the number 6 centimetres of water refers to the pressure of the CPAP machine, she's in 40% oxygen, and her own oxygen saturations that we monitor on babies on the neonatal unit are 100%, which is --

DRIVER: So -- you continue, please, Dr Rylance.

RYLANCE: So the next -- my next documentation is my clinical examination of her. So "HS1 plus 2 plus 0" means her heart sounds were normal. CR is capillary refill, which was less than 2 seconds, which is normal. I felt for her femoral pulses -- so "femoral tick tick" means that both her femoral pulses were present. "P135" is her pulse rate, which is okay. Then I've written she has -- her chest is clear, she has regular respiratory effort, but fairly shallow breathing, her abdomen is soft and not distended, she has normal -- N in a circle -- is normal female genitalia and a normal anus. So this is my first complete examination of her that I've documented there and everything in that examination is normal.

So the plan --

DRIVER: Yes, go on, tell us about the plan.

RYLANCE: So at that time the plan I've documented is to continue on CPAP, on the breathing support, and then to continue with intravenous fluids. So I've written 10% DEX, which is dextrose, at 60ml/kg/day -- again, this is the way we calculate the amount of fluids based on their weight.

So she was given a normal saline bolus on the previous page of 31ml and that's given as a push, we would give that through quickly, and then we've connected her up to her a set that will continue to run with dextrose.

And then the plan at that point was to repeat the gas, the blood gas, at 8.45.

DRIVER: Thank you. Then at 20.20, did you record the explanation that you provided to little [Baby D]'s parents?

RYLANCE: Yes. So I've written:

"Parents updated, explained likely sepsis."

Which is another word for infection:

"Needing help with breathing."

She's on the CPAP, the respiratory support at present:

"She may need further support with her ventilation and she was receiving antibiotics [ABX is antibiotics] to treat infection."

DRIVER: What was the basis of your conclusion of "likely sepsis"?

RYLANCE: I think that in the background details that I've recorded that there'd been a prolonged rupture of membranes and I think given that otherwise there was nothing particular to explain her condition, the most likely cause for a baby of that size and gestation to be born and have difficulty, as she seemed to be having with her breathing and with the abnormal parameters on her blood gas, would be infection.

DRIVER: Thank you. What, if any, view did you form as to her clinical condition or clinical progress from the time that she'd been admitted on to the neonatal unit until this point in time?

RYLANCE: I think she had responded well to the interventions that we had done. She had responded well to the respiratory stimulation that she'd been given and appeared to be stable, to have stabilised on the CPAP, and was making respiratory efforts for herself. So I think overall I would say that I was happy with the progress since she was admitted, although she'd obviously need to be closely -- continue to be closely monitored and assessed.

DRIVER: Thank you. I wonder whether we could go down to the next page, please. We'll see entries made by a colleague of yours. If we go to the bottom of that page -- no, that's the extent of your entries on that page.

I wonder whether we could show the doctor page 15 of the clinical notes, which are at our J2220, which are, amongst other places, tile 133.

RYLANCE: I have page 15 with me here if that's helpful.

DRIVER: It is very helpful. Thank you.

RYLANCE: No, sorry, that's not the same as page 15 that I have.

Okay, fine, that is the page 15 that I have, yes.

DRIVER: Good. This records an entry made by you at 14.00 hours the following day, that is to say Sunday, 21 June 2015.

RYLANCE: Yes.

DRIVER: Does this entry at 14.00 hours record your insertion of a UAC and UVC into [Baby D]?

RYLANCE: Yes, it does.

DRIVER: Could you take us through this entry then, please, Dr Rylance?

RYLANCE: Certainly. So I've written:

"UAC [which is an umbilical arterial catheter] and UVC [umbilical venous catheter] inserted under aseptic technique."

I've written:

"UVC only able to advance to 5 centimetres, removed."

Do you want me to explain what I mean by what I've written?

DRIVER: Yes, please.

RYLANCE: So usually if you are inserting a UVC, you expect to be able to advance it much further than 5 centimetres, you're feeding it in through the umbilical vein, and it should go in more than 5 centimetres. Sometimes it can be quite fiddly and difficult to do these procedures in newborn babies. It's not uncommon that it's not successful and so if it was only able to go into 5 centimetres it means probably the catheter was actually barely beyond the umbilical stump and actually into the baby. So it was removed because it was not successful.

Then I've written:

"UAC inserted to 20.5 centimetres as per calculation."

Again, there is a way that we calculate how far to feed the catheter into the baby based on the baby's weight. So I have inserted it to the distance that I would expect to. It wasn't sampling back -- so when you put the catheter in, normally you then expect to be able to draw back and get a blood sample and it didn't sample back.

We do an X-ray to check the position of the catheters when we put them in and I have written:

"On X-ray in way too far. Route not typical of UAC. Therefore pulled back until sampling at 9 centimetres."

So I think -- what I think there or my interpretation of what I've written there is that normally you look at the way the catheter -- you look at how the -- the appearance of the catheter on the X-ray and it should follow a particular route according to the blood vessels. What I was thinking there, I think, is it wasn't actually in the umbilical artery, it was in the umbilical vein instead, and therefore it wasn't in the correct position and I have pulled it back until I was able to get a blood sample from it.

The next comment is:

"Gas much improved."

Again, the numbers there reflect the blood gas measurements that we look at. I've circled "PO2 7.1".

This is the amount of oxygen in the blood and the fact that this is a low level, so it would suggest that again the catheter is in a vein and not in the artery.

Then I've written:

"Re-X-rayed. Position looks better on machine. Awaiting Meditech upload to view and measure more accurately. [Query] still not typical course. Can connect to transducer for [blood pressure] monitoring."

What this means is that when the -- on the neonatal unit, because the babies are sick, we are not able to take them somewhere to get a formal X-ray done, and so at the point at which we've put the umbilical lines in, we would arrange for a technician to come and do an X-ray on the unit. We can then review the X-ray on the actual X-ray machine. It's not as clear as looking at it on a computer screen afterwards but it's useful at the time in order to be able to make faster decisions or assessments. So that's what I mean when I said that the position

looks better on the machine, but we are waiting for it to be uploaded onto the system so we can look at it properly on a computer screen.

DRIVER: Thank you. Going back to the part of your note where you record "gas much improved", what was the point of comparison there? Much improved from what?

RYLANCE: I assume that it is improved from the previous gas reading. I'm looking now at -- trying... So I don't know what the previous -- but normally you would just be comparing the trends with the previous gases. I assume it's related to the gas.

DRIVER: Thank you. Let's continue down the page then, please.

Can you see an X-ray review stamp of an X-ray taken at 13.46? Is that a repetition of the information you've just shared with us or is this additional to it?

RYLANCE: No, I think this is repetition. On the neonatal unit each time we take an X-ray to look at the line positions, we would put this sticker in the note. So this is really duplicating, effectively, what I've written earlier in that. It looks like the umbilical arterial catheter is actually in the umbilical vein and so it was pulled back. So then what is left is a catheter that's in the umbilical vein, not in the artery.

DRIVER: Thank you. Let's continue down the page where you then record your plan at this point in time, which was, please?

RYLANCE: The plan was to continue on the CPAP, so on the ventilatory support, but in air, so she wasn't needing any additional oxygen at that time, the machine is just providing some pressure but not extra oxygen to her, and to repeat a blood gas at 6.30. And then the plan was also to try and take -- again to take some blood back from the UVC, the umbilical venous catheter, so we could check another blood gas and the bilirubin and U&E, which is urea and electrolytes, and CRP, which is an inflammatory marker.

DRIVER: Thank you. I expect, if we continue down the page, we'll see your notes of a review of the baby at 19.00 hours that Sunday evening.

RYLANCE: Yes, I've got that page.

DRIVER: We have "Day 2 of life" and her gestational age. Then we have your notes that begin with the words "Presumed sepsis, CRP 1"; is that correct?

RYLANCE: Yes.

DRIVER: Help us: expand on CRP 1 for us and its significance.

RYLANCE: CRP 1 is the C-reactive protein. It's a marker we check in babies when we think there may be infection. 1 is a normal value it's not raised. That doesn't necessarily mean that the baby doesn't have sepsis.

Sometimes there is a delay in the inflammatory markers rising, given that she's still quite -- that she's only on her second day of life at this point. Even though her CRP is normal at that point, we would still continue to be suspicious of and treat for infection.

Then I've written:

"On CPAP [so she was still on respiratory support] having been extubated at 9 am."

This document is at 7 in the evening. So it looks like she's been on CPAP for the whole of the day.

DRIVER: We previously saw a note that recorded a CRP level of 6 and now 1. Would you have attached any significance to that change in data or is it not possible to form conclusions drawn from those facts?

RYLANCE: I wouldn't be particularly... I wouldn't attach particular significance to those, I think a CRP of 1 is low, a CRP of 6, it's also low. I'd have to -- I think the normal range for a CRP is less than 10. It does vary from hospital to hospital and I can't remember, given the time now, what the normal range was in Chester at the time. But I think both of the values are fairly low, but still, as I said before, based on her clinical condition, even with those results, we would continue to treat for infection.

DRIVER: Understood. Your next sub-paragraph is under the heading "Vent", is that ventilation?

RYLANCE: It is ventilation, yes.

DRIVER: Could you read and expand upon the next entry for us, please?

RYLANCE: Sure. I've written "CPAP 6 centimetres", so it's -- 6 centimetres is the amount of water pressure that's been used in the CPAP machine. I've documented that she's been in air all day, she's saturating well. By "in air" I mean that although

she's on the CPAP to support her breathing, she's not needed any additional oxygen all day:

"Saturating well. No desaturations."

Her initial gases after extubation, which was earlier in the morning, were not good. Her pH was 7.1 and her pCO₂ was 9, therefore she had been put on to CPAP rather than left without any ventilatory support.

So reading this, she'd been extubated at 9, then put on to CPAP at 10.30 in the morning, and then subsequent gases, so the gas from the UVC that I'd taken was good.

I've documented that gas there, which is a big improvement on the previous gas.

DRIVER: Reviewing those entries from the point of extubation at 9 am, the intervention at 10.30 am, and these gases reviewed at 18.45 hours, is that right, the last time?

RYLANCE: Yes.

DRIVER: What was your appraisal of her state in terms of her respiration?

RYLANCE: I think from a respiratory perspective she appears to have made good progress during the day. She's moved from requiring ventilation the previous night, she's tolerated extubation, and she's needed minimal respiratory support. That CPAP pressure is not high and she's not needed any oxygen and her blood gases show an improvement. So I think her ventilatory status was very satisfactory at the point at which I reviewed her.

DRIVER: Can we move on to fluids, please?

RYLANCE: I have written:

"Fluids. On 75ml/kg/day of 10% dextrose."

Again this is calculating how much fluid she needs based on her weight. This is a standard amount:

"She had a 10ml/kg normal saline bolus at 11 am due to rising lactate and slightly delayed capillary refill."

So this was a bolus of fluid that was given earlier on in the day to try and improve her perfusion. And then I've written:

"Just passed first urine, 13ml."

Which is an encouraging sign, it shows that she's able to pass urine.

BM is her blood glucose, which is 7.1, which is okay. And BP, her blood pressure, is now 60/39.

DRIVER: How would you evaluate that blood pressure reading?

RYLANCE: It's difficult to take in the context of a single reading. I think that -- to me that seems unremarkable.

DRIVER: Let's move on then. Sorry, you continue, Dr Rylance, my apologies.

RYLANCE: I was going to say, usually for newborn babies we have charts where we can look to check the normal parameters, again based on their size. I can't remember off the top of my head what those parameters would be, but I'm sure if I'd been concerned by the blood pressure reading I would have made a comment.

DRIVER: Thank you. Let's move on to the next sub-paragraph then, sepsis.

RYLANCE: I've written:

"Sepsis. Initial CRP 1."

So the CRP result from the first blood sample that was taken was 1. And then a repeat CRP just taken. So I think at that point I'd taken another sample from her UVC:

"Not had LP yet."

LP is a lumbar puncture. So in babies where we have concerns about infection, if we think that they are clinically stable, we often would choose to do a lumbar puncture to make sure that the infection hasn't spread into their spinal fluid and around their brain. But she hadn't been stable enough to have had that done at that point.

DRIVER: Thank you. The next paragraph, is that an abbreviation for "on examination"?

RYLANCE: Yes, it is.

DRIVER: How was she on examination?

RYLANCE: Would you like me to take you through the whole documentation?

DRIVER: Yes, please.

RYLANCE: I've written:

"Responsive on handling."

Which is a good sign:

"No abnormal movements."

Her tone was reasonable:

"Heart sound 1 plus 2 plus 0."

Which was normal:

"Capillary refill less than 2 seconds."

Which is normal:

"Femoral pulses tick tick."

So both still palpable. Pulse rate is 130 which is unremarkable:

"Chest clear. Regular respiratory effort. Minimal recession."

So recession is what we look for to see whether babies are struggling with their breathing and the fact there was minimal recession is positive, a good sign:

"Abdomen was soft, not distended. She has an umbilical venous catheter which is secured at 6 centimetres. Normal female genitalia. Feet quite purple and bruised, but capillary refill is less than 2 seconds."

She will have had quite a lot of samples taken from her feet. We do heel prick sampling in newborn babies, so sometimes they can have quite bruised feet, so that's what that is referring to.

So overall from the --

DRIVER: Thank you. Yes?

RYLANCE: Overall from my examination there, I would say that she was stable and she was handling well and that she had been sort of responding well during the day. This is a satisfactory examination.

DRIVER: Responding well, responding to what?

RYLANCE: To the treatment that she'd had over the course of the day in terms of the antibiotics, the fluids, the minimal respiratory support.

DRIVER: Thank you. Just to go back to one aspect of your note, "Tone reasonable". Could you expand upon that for us?

RYLANCE: Sure. So one of the things that I would look at if I was assessing a baby is how they're handling. So the tone is whether they might be very floppy and limp or, if you're looking on the other side, to see if they're too stiff or if they're having any abnormal movements.

Her tone was reasonable, so that suggests to me that she wasn't particularly floppy, that she was -- I've written she was responsive on handling, so she was moving like I would expect a normal baby to.

DRIVER: Thank you. Let's go to what I think is the penultimate paragraph. What does that abbreviation stand for in the left margin?

RYLANCE: "Imp" stands for impression. This is the impression that sums up sort of the assessment that I've laid out. So I have written she's stable on CPAP, we tried taking her off but her respiratory effort became irregular and she desaturated a few times so she was put back on.

DRIVER: What if any significance, clinical significance, would you or did you attach to the fact that her respiratory effort became irregular when first taken off CPAP?

RYLANCE: I wouldn't have attached a lot of significance to it.

I think given that she was extubated earlier that morning, it takes babies some time to settle and she was obviously unwell when she came round to the neonatal unit on the previous evening, so I think I would have interpreted that as that she just needed a bit more time, a bit more support in terms of her -- from the CPAP in terms of respiratory support, just to -- yes, just to allow her to transition from having been ventilated and then moving to breathing for herself in the day.

So we usually try to move the babies forward by taking them off the CPAP but if they don't seem to tolerate it well or we have any concerns, we can just put them back on and give them a bit more time. So I would have -- to me I would just interpret that as that she needed a bit more time on the respiratory support, but that she was heading in the right direction since she wasn't needing any oxygen on it, she was just needing the pressure from the machine without any additional oxygen.

DRIVER: So your plan was to leave on CPAP, await further results; is that right?

RYLANCE: Yes. So we were repeating -- we just repeated the CRP, the infection marker, U&Es, urea and electrolytes, and bilirubin level, to leave the umbilical venous catheter in, so that we could sample for gases from it, to save having to keep pricking her heels, which I've commented were quite bruised, and continue on the antibiotics.

ABX is antibiotics.

DRIVER: Taking a step back if you would, you've examined this baby and considered data that was obtained in relation to this baby twice in the space of about 24 hours, Saturday night and Sunday night; do you agree?

RYLANCE: Yes.

DRIVER: Firstly, as of this final set of observations on the Sunday night, what was your assessment as to her clinical condition?

RYLANCE: I was happy with her clinical condition. I think on the basis of this review, which I've done towards the end of my shift, before handing over to my colleague, that she's had a very satisfactory day. Generally, she has been improving in terms of needing less respiratory support, handling well. She was a good colour, she wasn't needing any oxygen. Clinically, I would say I'd be very happy with her from that assessment and that she'd shown a good improvement from the condition which I saw her when I first admitted her to the neonatal unit on the previous evening.

MR DRIVER: Thank you, Dr Rylance. That's all the questions I have for you, but my colleague Mr Myers will have some questions for you now.

Cross-examination by MR MYERS

MR MYERS: Can you see me and hear me, please?

RYLANCE: Yes, I can.

MYERS: Thank you. You told us -- there's two occasions when you examined [Baby D] -- two occasions where you were involved: one on 20 June, after her birth. That's the first, isn't it?

RYLANCE: Yes.

MYERS: And then you were also involved with her during the day of 21 June and into that evening; is that correct?

RYLANCE: Yes, that's correct.

MYERS: All right, thank you. You told us that when you left her on 20 June, the first occasion, you were happy with her condition -- happy with her progress, I should say.

Happy with her progress. We'll look a little more closely at what happened when you were with her, but putting the word "happy" to one side, would you have recognised at that time that she was at risk of respiratory complications?

RYLANCE: On the first night that she was admitted to the neonatal unit?

MYERS: Yes, and when you came to leave her on that night.

RYLANCE: Yes. As I said, she had responded well to what had been done, if you like, when we admitted her to the unit in terms of giving her some puffs with the Neopuff and then putting her on to the CPAP. But her gas wasn't in the normal range and she needed closer monitoring and that's what would have been handed over to my colleague.

MYERS: Who was Dr Brunton, we've heard?

RYLANCE: Yes, from the notes, and I do remember Andrew.

MYERS: I just want to look at the position then leading up to that, if you could help me with this. We've got the clinical notes, which we refer to as either 2214 or slide 18, but they were put up on the screen, so it might help if we could put them back on the screen, Mr Murphy. It's our slide 18 and it was the first page of Dr Rylance's notes.

This should come up on the screen, Dr Rylance.

Can you see those?

RYLANCE: Yes.

MYERS: I just want to keep the picture in mind. We know that [Baby D]'s mother, [Mother of Baby D], her membranes had been broken or ruptured 60 hours before the time of birth.

Are you aware of that?

RYLANCE: From what I've written in the notes, yes, I can see that I've documented that.

MYERS: The notes say "Apgars 8 and 9"; can you see that?

RYLANCE: Yes, I can.

MYERS: On the face of it, 8 and 9 are relatively good Apgar scores, aren't they? That's, I think, at 5 and at 10 minutes, in fact.

RYLANCE: Yes (inaudible: distorted).

MYERS: We can also see that, within 12 minutes, [Baby D] was in her dad's arms, had lost colour, was floppy and needed five rescue breaths; do you see that?

RYLANCE: Yes.

MYERS: Do you agree that is a worrying sign at that stage?

RYLANCE: Yes.

MYERS: Just pausing there, it would suggest that whatever the Apgars were at 8 and 9, they're not much help in predicting what's going to happen 12 minutes later, are they?

RYLANCE: No, I think that's fair.

MYERS: Just so we can keep in mind the picture, we've heard evidence from [Baby D]'s mother, [Mother of Baby D], and she said this about the time we're looking at. She was asked did she see [Baby D] when [Baby D] was delivered and lifted over the screen for her to see, and [Mother of Baby D] said yes. She was asked what impression did she have of [Baby D]'s state, and she said:

"Not alive, she seemed very lifeless, she didn't scream. There was no sound."

So that fits with the period we have at 12 minutes of age:

"In dad's arms, lost colour and floppy."

Can I ask, when we move forwards and you give us your views of [Baby D]'s condition, what you're happy about, how well she's doing, are you giving us those views by reference to the very poor starting point she had soon after delivery?

RYLANCE: I am giving -- so when I'm talking about how -- my opinion of her at the end of my shift on the day of [Baby D]'s birth, my reference point is the point at which I first had contact with her on the neonatal unit, when she was requiring

additional Neopuff respiratory support, and I've documented that her oxygen saturations were, I think, 48%.

I wasn't at her birth and I wasn't involved with her at this early stage, so I can't comment on how she looked at that time. What I've written there is based on what either I would have been told by colleagues or what I would have taken from others' documentation in the notes. This is, if you like, my summary when I first met [Baby D] to try and put together why she is in the -- how she is and what I need to know in order to move forward with my assessment. So it's like it's my summary but it's not my observations, if that makes sense.

MYERS: So is it fair to say that the assessments you make of [Baby D] are relative to the starting point that you understood her to come from?

RYLANCE: The assessments that I've made are relative to my first assessment of her when she came to the neonatal unit.

MYERS: If we just look on through those notes, the fact you've written it down means this is material that, if you didn't receive it first-hand, was at least reported to you; is that correct?

RYLANCE: Yes.

MYERS: And even if you don't receive it first-hand, you will keep in mind, won't you, material and observations from other practitioners that are reported to you or that is reported to you?

RYLANCE: Yes, absolutely.

MYERS: So you will have known from the history that she, as we can see reading on, started grunting in theatre.

Can you see that, Dr Rylance?

RYLANCE: Yes.

MYERS: And it says:

"Reviewed at 1.5 hours by senior house officer. Grunting but otherwise obs okay. Examined normally."

Pausing there, grunting like that can mean an indication of a respiratory effort and some difficulty in respiratory effort, can't it?

RYLANCE: Yes, it can.

MYERS: If we look on:

"Blepped again as midwife not happy with her colour. Lack of response to vitamin K. Poor feeding."

Then it says:

"Brought to unit [is that the neonatal unit?] for screen."

RYLANCE: Yes. That's the neonatal unit.

MYERS: "On arrival at the unit, looked dusky, poor respiratory."

This takes us up to about the point when you become personally directly involved with [Baby D], doesn't it, Dr Rylance?

RYLANCE: Yes. So my -- I'm unable to recollect whether I saw [Baby D] before she came to the unit. I definitely will have admitted her to the unit myself, so where I've written:

"Brought to the unit for screen. On arrival looked dusky."

This is my observation.

MYERS: Right.

RYLANCE: But I don't believe that I was involved in reviewing her before she came to the unit. My supposition is that I would have asked the senior house officer, who had reviewed her, to bring her round directly to the unit when he or the midwife had discussed with me. But from the point at which she came to the unit, these are my direct observations.

MYERS: Right. We know she was born at 4.01. It has here, where your observations appear, and I'll come to them shortly, we can see there's an arrow and it says 19.30.

It says:

"Initial sats 48%. Poor respiratory effort 19.30."

Does that mean when you reviewed her?

RYLANCE: Yes, I think so.

MYERS: So you will have reviewed her approximately 3.5 hours after her birth?

RYLANCE: Yes.

MYERS: And by that time, she's presenting as a baby that is seriously ill, in fact; would you agree?

RYLANCE: Yes. From the way that she behaved when she came round to the unit, she was an unwell baby.

MYERS: She was an unwell baby. And you put there:

"Initial sats 48%, poor respiratory effort, put into the incubator."

That's what you did?

RYLANCE: Yes.

MYERS: Did you review her at any point that evening when she was with her mother or did you see her after she'd left her mother?

RYLANCE: I think that the first time that I reviewed the baby was when she came to the neonatal unit. I think if I had reviewed her on the ward, I would have documented that in the notes because that would be a reason to document.

So from what I've -- reading my notes, I think the first time that I reviewed the baby was on the neonatal unit when she was brought around.

MYERS: Thank you. If we just move on, on this particular page, Dr Rylance, to the next paragraph in fact. It's got:

"IV access obtained."

Then we've got:

"Culture. FBC, CRP taken. BM 4.2."

I want to ask you, where it says "Venous gas at 19.47", those readings indicate marked acidosis, don't they?

RYLANCE: Yes.

MYERS: In particular we know that pH should really be in the range of 7.3 to 7.35, and this is low, 7.105, isn't it?

RYLANCE: Yes, it is.

MYERS: That's acidic. And the other readings as well. The carbon dioxide is high, isn't it?

RYLANCE: Yes.

MYERS: And the base excess is below what you'd regard as the acceptable range?

RYLANCE: Yes.

MYERS: You explained to us -- you said these were abnormal and they indicate, did you say, difficulty with the respiratory system and metabolic component to that -- or metabolic components of that?

RYLANCE: Yes, that's correct.

MYERS: And you explained, we understand, you obviously take into account the blood gas as part of the overall clinical picture, don't you?

RYLANCE: Yes.

MYERS: But at this stage, weighing up the overall clinical picture and how [Baby D] had been when she came to the unit, the picture at this point was not a good picture, was it?

RYLANCE: No.

MYERS: I'm going to go over the page if we could, please, just to see your assessment at 20.20. So this is our page 2215, slide 14. It's going to come up on the screen for you to see it, Dr Rylance.

I just want to confirm what your final assessment was at 20.20, so we can just roll down. Just below the section on the screen at the moment, Mr Murphy, if you would, please. We can see, 20.20:

"Parents updated. Explained likely sepsis. Needing help with breathing. On CPAP at present. May need further support with ventilation. Receiving antibiotics to treat infection."

Can you see that, Dr Rylance?

RYLANCE: Yes.

MYERS: In fact, you had at one point, when talking about the position of [Baby D] and some of the findings you document on that page, referred to examination as being normal at this point. But in fact, there was quite a lot about [Baby D] that was abnormal at this point, wasn't there, as against the parameters for a healthy baby?

RYLANCE: Yes. She wasn't a healthy baby at this point in time.

MYERS: And are you aware that by 21.00, so 9 o'clock that evening, she was put on to a ventilator?

RYLANCE: Yes, I have Dr Brunton's notes in front of me.

MYERS: Thank you. Before we move on to what happened on the next day I just want to ask you a little about infection, if you'd help us with this. Infection is a leading cause of death when there is death in neonates, isn't it?

RYLANCE: Yes.

MYERS: And do you agree that it can develop very quickly in a neonate?

RYLANCE: Yes, it can.

MYERS: It can. As a general rule, antibiotics should be given to a neonate within an hour of birth, shouldn't they?

RYLANCE: There are different guidelines depending on whether babies should receive antibiotics, whether they're clinically unwell or whether they have risk factors.

But in general, obviously as soon as you have a baby where you have concerns about infection -- and in this case where [Baby D] was not behaving like a healthy baby -- then we would want to give antibiotics as soon as possible.

MYERS: In [Baby D]'s case we know that there'd been a preterm rupture of membranes in her mother; you're aware of that, aren't you?

RYLANCE: Yes, I've documented it in my notes.

MYERS: Yes. She then spent 60 hours in utero with the membrane ruptured. You're aware of that too, aren't you?

RYLANCE: Yes.

MYERS: And we've seen from the notes that by 12 minutes she was in a state of collapse and a poorly baby, wasn't she?

RYLANCE: Yes.

MYERS: So she is a baby for whom antibiotic treatment should have been immediate, shouldn't it?

RYLANCE: Yes. I think at the point at which there were clinical concerns about her, she should have received antibiotic treatment.

MYERS: And do you agree from what we've seen in the notes, that by the time she collapsed at 12 minutes, those are clinical concerns?

RYLANCE: Yes. I would add, though, that the documentation and description of what happened at 12 minutes isn't something that I witnessed and that --

MYERS: No.

RYLANCE: This is relying on somebody else's documentation. Some babies do have brief periods of apnoea, difficulty breathing, which settle very quickly and then they are fine. So it's difficult to know from what is written exactly how she was clinically at that time. But I think from my point of view, if I saw a baby and I felt that they were clinically unwell, with a history of ruptured membranes, then we would want to start antibiotics immediately. That's why, as soon as she came round to the neonatal unit, we started the antibiotics --

MYERS: Before she got there -- sorry, Dr Rylance, I interrupted you.

RYLANCE: No, I just meant to say when she came round to the unit, the priority was to put the cannula in and start the antibiotics as quickly as we could.

MYERS: Before she came there, can I ask you if we can be clear about this, we know that she was without colour and floppy at 12 minutes, if the reports are accurate, don't we?

RYLANCE: Yes, that's what (inaudible: distorted).

MYERS: We have received the evidence -- a description of from her mother that I read to you about her condition, presenting almost as without life at that point. Do you remember me reading that to you?

RYLANCE: Yes.

MYERS: I went through how she was grunting in theatre, which indicates increased respiratory effort. You've seen that, haven't you?

RYLANCE: Yes.

MYERS: There had been a lack of response to vitamin C (sic), the midwife wasn't happy with her colour, and there had been -- it says "poor feeding", all before she came to the neonatal unit. You recall that?

RYLANCE: Yes.

MYERS: We know that you were not dealing with [Baby D] at that point, but the reality is, from the point that she had collapsed at 12 minutes, the right course in all the circumstances, given the rupture of membranes and everything we know, would have been to prescribe and give antibiotics rapidly, wouldn't it?

RYLANCE: Yes, I think so.

MYERS: You may not have the documentation there, but we will have it here and we will come to it in the trial in due course. But it appears that [Baby D], having been born at 4.01, didn't receive antibiotics until just before 8 o'clock that evening, after she'd come to the NNU.

Are you aware of that date or time for the receipt of antibiotics?

RYLANCE: Sorry, can you say again, what time did she receive the antibiotics?

MYERS: Just before 8 o'clock that evening.

RYLANCE: Yes, I think that would be right because I think I would have given the antibiotics at the time we put the cannula in or, if I didn't give them myself, I would have asked one of the nurses to give them immediately.

MYERS: So again we understand you weren't dealing with [Baby D] in theatre at the time of delivery. But however that happens, it turns out there was a four-hour delay in the delivery of antibiotics to [Baby D] after birth, wasn't there?

RYLANCE: Yes.

MYERS: And again, you may not be responsible for that delay, but that falls below the proper standard of what a baby like that required in these circumstances, doesn't it?

RYLANCE: Yes.

MYERS: I'm sure people understand this, but so there can be no doubt, the purpose of antibiotics is to treat against and reduce the risk of infection; do you agree?

RYLANCE: Yes.

MYERS: I'm going to move to the following day now, 21 June. By way of background, Dr Rylance, we know that [Baby D] was

extubated some time between 9 and 10 in the morning, so she came off the ventilator between 9 and 10. That may or may not be apparent from the notes you have, but we know that so I'm just recognising that fact.

The notes that you've been looking at, we'll go to them, commence at our page 2220, which is at slide 15 -- sorry, slide 133. And I think this was your page 15 but we can put it up on the screen.

Can we see there that your involvement with [Baby D] so far as the notes indicate starts at 2 o'clock that afternoon?

RYLANCE: Yes.

MYERS: Five or six lines down in your entry, it says:

"Gas much improved."

And you have put in the blood gas readings there.

Can you see that?

RYLANCE: Yes.

MYERS: You may not have any recollection of this, but I'll ask you anyway: were you aware of the nature of the blood gas readings before that reading at about 2 o'clock?

RYLANCE: So I can't remember any of this now, I can only go from what's documented, but usually there would be a blood gas chart or there would be documentation that I would have been able to refer to at the time and that would be what my comment, as I mentioned to your colleague, would be referring to. So presumably, an improvement on the previous sample that was taken. But from what I've written, I don't know what that sample was.

MYERS: All right. For the benefit of those of us in court following this, I'm simply going to observe at this point, if anyone wants to make a note, that the blood gas chart was at slide 112. Just for your benefit, Dr Rylance, you probably won't remember it now, but again the pH was acidic and there were signs of acidosis in the readings at 10.14 and 12.10 that morning. So it's by reference to that that you make the comment about blood gas improved. That's just to help with what brings us to where you are there.

I'll move on from that. The UVC, if I understand this correctly, the intention had been to put in an arterial catheter through the umbilicus; is that correct?

RYLANCE: The intention was to put both in. So when you have a baby that's unwell and needs repeated sampling and also good access for giving antibiotics or other fluids through, it's common to put in an umbilical venous and umbilical arterial catheter if it is possible to do so.

That's what we were trying to (overspeaking) --

MYERS: Sorry, again, I didn't mean to be rude, I spoke over you then, Dr Rylance.

In [Baby D]'s case what you succeeded in putting in place is a venous catheter and that's the one you worked with?

RYLANCE: Yes.

MYERS: Let's go to the page, the following page, in the notes, please, which is our page 2221, which is slide 158.

Mr Murphy can put it up on the screen for you, Dr Rylance.

RYLANCE: I have it in front of me if it helps.

MYERS: Thank you. We'll wait for it to come up on the screen so we can follow it anyway. Slide 158.

Just one point to deal with. At 19.00, at the top, it says:

"Presumed sepsis. CRP 1."

In fact, I think just for the purpose of clarity, it changes to CRP 6 later that evening. I don't think there'd been a CRP 6 before then, but for anyone who was to move on to the next page with Dr Brunton's notes, we would see it goes to CRP 6 later in the evening. But in any event, Dr Rylance, your evidence is that to some extent that can't establish for sure whether or not there is infection?

RYLANCE: Yes.

MYERS: I'd like just to deal with the position when you finished caring for [Baby D] on this particular evening and just to go down to an entry at the bottom of that page about CPAP. So if we just scroll down the page, please.

You've put in here:

"Stable on CPAP. Tried taking her off but respiratory effort became irregular and desaturated a few times so put her back on."

Do you see that?

RYLANCE: Yes.

MYERS: Again, for the benefit of those of us following the evidence, if we went to the nursing note that actually accompanies what you're dealing with there -- I'm not going to ask for you to go to this, it's so that we can note and keep track, the nursing note is at page 2239, which is slide 105. That nursing notes makes reference to this and talks about [Baby D]'s saturations dropping to the mid-80s, so she had to be put back on CPAP. That refers to what you're talking about there, Dr Rylance.

The fact that [Baby D] desaturated when taken off CPAP is not a healthy state to be in, is it?

RYLANCE: As I answered earlier, I think it reflects that she needed a bit more respiratory support. So no, it's not normal, if you take normal as the fact that a baby would not need any sort of support at all, but I think the fact that she had moved from requiring ventilation to just the CPAP support and then no oxygen support with it suggests that her respiratory status was improving and that we were trying -- by trying to take her off the CPAP -- we wouldn't have done that if we felt that she was unstable or, you know, particularly sick at the time. We felt that she was improving and therefore we tried to take her off to see if she would tolerate it.

She didn't tolerate it from what's documented there, so we put her back on, but I wouldn't be particularly concerned by the fact that she needed to go back on at that stage given that she was now at this stage only a little over 24 hours old, I think.

MYERS: Yes. So improving again is by reference -- is relative to the starting point that you had seen her at; is it fair to say that?

RYLANCE: Yes, I think it's relative to the point at which I would have assessed her at when she was admitted to the neonatal unit and then assessed her before going off duty on that first day, the day she was born on.

I don't think I'd had a lot of involvement with her, as you've mentioned, until 2 o'clock in the afternoon when I was putting the lines in. I don't think I'd been involved with her in the morning of the day we're talking about now.

MYERS: Thank you. With reference to stability or instability, we've seen it's recorded she desaturated when taken off CPAP. I

take it it follows that when she was put back on CPAP, her oxygen levels came up and she stabilised?

RYLANCE: Yes. We would have taken her off and she would have been stabilised and at the point at which I've then examined her on that review, she's handling well and responsive and has good respiratory effort, that I've documented there in my examination of her.

MYERS: Yes. Handling well and good respiratory effort once she'd been put back on the CPAP and stabilised; is that correct?

RYLANCE: Yes, at that point in the review, further up where I've written about her ventilation, I've written that she's on CPAP, so at the point at which I'm examining her there, she is on CPAP at that time.

MYERS: Right. I just want to establish this -- this is what I'm asking you about: your examination of her was satisfactory in all the circumstances when she was on CPAP?

RYLANCE: Yes.

MYERS: When she wasn't on CPAP, she desaturated?

RYLANCE: According to what's written, yes.

MYERS: Well, yes. And the nursing notes say to the 80s. You don't know, I suppose, what would have happened if you hadn't put her back on CPAP when she desaturated, do you?

RYLANCE: No.

MYERS: For all you know, it could go very badly wrong at that point, she could deteriorate significantly?

RYLANCE: Of course we don't know what would happen if we didn't intervene, but the intention would not be to leave her off if we felt that she was not handling it well. So at the point at which we have any concerns, of course we would put her back on, which is what the nurses have done.

MYERS: Right. So stable on the CPAP. In fact, you also added this, that she needed a lumbar puncture or you felt she needed a lumbar puncture to establish the extent to which infection might have spread; is that correct?

RYLANCE: It's just that it's -- part of the investigations that we would do for infection would be -- a routine thing would be to include a lumbar puncture in any baby where we've done what's called a septic screen and started them on antibiotics. So a

lumbar puncture is part of that if the babies will tolerate it. Often they are not in a state to be able to have that done.

MYERS: That's right. You said that in [Baby D]'s situation she wasn't stable enough for that to be done.

RYLANCE: No, a lumbar puncture is quite an invasive procedure that involves a lot of handling, you have to move the baby on to their side, it's difficult if they're on any form of respiratory support -- for example she was intubated overnight and then on the CPAP. It's not an easy thing to do. So there's always a risk-benefit assessment that you make in terms of what information you think you will get from doing the investigation, how you think it would change the treatment, if at all, and how the baby will tolerate it.

So we weigh this up and in [Baby D]'s case it hadn't been felt that this was something to be -- that needed to be done at that point in time.

MYERS: All right. I just want to summarise this. We know [Baby D] lived, sadly, only for 36 hours and you will be aware of that, Dr Rylance. You were involved in her care for several hours on the evening of the 20th and I don't know how many hours but maybe 7 or 8 hours on the 21st, something like that. Does that sound right to you?

RYLANCE: Yes. Maybe less on the 21st, actually.

MYERS: Right. Throughout that period, I don't say this critically, but you had concerns as to infection or the potential for infection in her case?

RYLANCE: Yes.

MYERS: You had identified respiratory difficulties at various points, not consistently, but at various points?

RYLANCE: Yes.

MYERS: And you were aware of or had identified signs of acidosis from her blood gas readings at various points, although less so going into the evening?

RYLANCE: Yes.

MYERS: And during the time that you cared for her, she was unable to sustain respiration without some sort of support, whether that was a ventilator or the less extreme measure of CPAP?

RYLANCE: Yes.

MYERS: And your finding was that when CPAP was removed, she deteriorated?

RYLANCE: Yes, that's what had happened during the second day.

MYERS: Right. And of course, after you finished the notes that we've here, which take us to round about 7, maybe a little bit after 7 o'clock on the night of the 22nd, your involvement with [Baby D] ceased after that?

RYLANCE: Yes, that's correct.

MR MYERS: Thank you, Dr Rylance.

Re-examination by MR DRIVER

MR DRIVER: Just one point of clarification. You were reminded in detail of the observations made of [Baby D] in the minutes immediately after her birth and you were asked about her relative -- clinical condition relative to that start in life. But leaving the relative aside for a moment, as of your last review of her condition at 19.00 hours on Sunday, 21 June, what was your assessment as to her stability at that stage?

RYLANCE: So when I last reviewed [Baby D] at 7 o'clock on the 21st, from what I've documented in the notes I believe she was a stable baby, albeit that she was requiring some respiratory support, but a very minimal level of respiratory support and no additional oxygen and that from my clinical examination, where I've picked her up and moved her and handled her, she was responsive and she was making good progress and that she had responded well to the treatments that had been given to her since she had been admitted to the neonatal unit about 24 hours previously, that being respiratory support, antibiotics, intravenous fluids.

So I would say that, yes, she wasn't a healthy baby by that time, she was still requiring a degree of respiratory support, but much less than she had been doing, and that clinically she was stable and that I was happy with her progress.

MR DRIVER: I have no further questions for you. Does your Lordship have any questions for Dr Rylance?

MR JUSTICE GOSS: I don't. Thank you very much.

Dr Rylance, thank you very much. That completes your evidence and we are, in a moment, going to end the link over to where you are. Thank you very much for making yourself available to give

evidence in Switzerland. May I also extend my thanks to the others in the room in which you are for their assistance and enabling this way of giving evidence to be facilitated.

Thank you all very much. That's to the prosecutor there and the interpreter and the clerical member of staff, who I think is the other member there. Thank you very much indeed.

MR DRIVER: My Lord, would that be a convenient moment for a break?

MR JUSTICE GOSS: It would, certainly, a bit later than normal, but obviously I didn't want to break into that evidence. So we'll have a 10-minute break now and resume in about 10 minutes, thank you very much.

(12.13 pm)

(A short break)

(12.25 pm)

MR JUSTICE GOSS: Yes, Mr Astbury.

MR ASTBURY: My Lord, I call [Nurse C], please.

NURSE C (affirmed)

Examination-in-chief by MR ASTBURY

MR ASTBURY: May we begin with your full name, please.

NURSE C: [Nurse C].

ASTBURY: Thank you. And your profession, please?

NURSE C: I am a nurse, a neonatal nurse.

ASTBURY: Thank you. I know I'm asking the questions, but if you can keep your voice up, please, so everybody in the back of the room can hear you, I'd be very grateful, thank you.

When did you first qualify, please, as a nurse?

NURSE C: I qualified in 1999.

ASTBURY: Have you completed, since 1999, additional qualifications in that capacity?

NURSE C: Yes. I have a masters by research and I have also done postgraduate qualifications in children's intensive care, neonatal intensive care and neonatal special care.

ASTBURY: Thank you. I'm going to ask you, please, about a period of time in June of 2015 when I understand you were employed as a neonatal nurse at the Countess of Chester Hospital.

NURSE C: I was, yes.

ASTBURY: What level nurse would you have been at that stage?

NURSE C: At that time I was a senior neonatal practitioner.

ASTBURY: We've heard levels expressed in numbers, would that be level 6?

NURSE C: That's a band 6, yes.

ASTBURY: Thank you. Specifically, please, I'd like to ask you about a night shift beginning on the 21st and ending on 22 June 2015.

First of all, generally in respect of night shifts, how would they compare to day shifts?

NURSE C: Generally, quieter in terms of the number of staff that are around, not so much the nursing staff, but fewer doctors, because the doctors are on call, (inaudible) pharmacists, fewer housekeepers and domestic staff around, so generally a quieter shift.

ASTBURY: On the night shift was there any particular rule about when staff would take their break?

NURSE C: No, no rules as such. It obviously depended on the patient workload and the preference, if we could accommodate it, of the staff on. Some people prefer an early break, some people prefer a late break. We can try and accommodate that as best we can.

ASTBURY: And when staff went on a break does it mean someone would have to take over the care of their particular baby?

NURSE C: Yes.

ASTBURY: And who would allocate that member of staff? Was it done by direction or agreement?

NURSE C: Bit of both. It could be directed by the shift leader or if we had, say in the ITU room, two experienced members of

staff on, they could agree that amongst themselves, because they'll be able to each determine their own workload and when they might have a quite time that would be easier for them to go for a break.

ASTBURY: Do we take it from that then it was difficult to have a specified time, it was as and when the opportunity arose?

NURSE C: It depended on the night shift, but yes, we'd try and balance it according to workload.

ASTBURY: I promised to ask you about 21 June. Could I ask, please, Mr Murphy, who's behind me, to go to slide 168 on our presentation. There's going to be some documents appearing in front of you I hope. I may ask you about them from time to time.

If we can go behind that, please.

This is a document that we prepared accurately.

We are confident as to the staff that night and in particular the nursing staff. I'm going to ask you to look, please, at the nursing staff that were on duty.

Does that accord with your recollection from that shift?

NURSE C: It does with what I looked up. I didn't remember that without looking at the notes.

ASTBURY: You've had an opportunity to look at the notes --

NURSE C: Yes.

ASTBURY: -- in advance and also, I hope, the witness statement you have provided?

NURSE C: Yes, I have seen that this morning, yes.

ASTBURY: We can see there the members of staff on duty and in fact you are designated as shift leader on that occasion; is that correct?

NURSE C: Yes.

ASTBURY: If we can scroll down a little further, please, we can see there was a nursery nurse on duty as well. And we have again the various allocations and locations of babies. If you could just run your eye over that for me for a moment, please. Even though you were shift leader, if we look at the box referring to nursery 2, we can see that in addition to that role you had two babies, is that correct, for whom you were responsible?

NURSE C: I don't remember that.

ASTBURY: Okay. All right. Would that on occasion be the case?

NURSE C: Yes.

ASTBURY: If we look across to room 1, in the top right-hand corner, we can see that Ms Letby had two babies allocated in nursery 1 alongside a colleague, Caroline Oakley, to whom was designated [Baby D].

NURSE C: Yes.

ASTBURY: If we look below we can see, I think, another baby who was in the unit at that time, who Ms Letby was also responsible for. Obviously they're anonymised to the best extent we can.

Now, during the course of the early part of the shift did you have any cause to have any contact with [Baby D]?

NURSE C: I can't remember.

ASTBURY: Okay. Well, let me please then ask Mr Murphy to go to slide 175, please.

On this first slide, we can see two names appearing on the top. This is our representation of events.

NURSE C: Right.

ASTBURY: It suggests that you and your colleague Caroline Oakley were involved in medication for [Baby D].

NURSE C: Okay.

ASTBURY: We can go behind the tile and it might explain why we say that. It certainly should do. If we go behind the document itself, we can see there a prescription form and I suspect you'll be familiar with that type of document?

NURSE C: Yes.

ASTBURY: It sets out medication being given to the baby and those who were involved.

NURSE C: Mm-hm.

ASTBURY: That's where that comes from. If you want to have a look for a moment.

NURSE C: Yes.

ASTBURY: Okay. If we can go back out, please, to the presentation. We can go across and see at 21.23 hours it would appear that [Baby D] received a number of medications. We can see benzylpenicillin and sodium chloride.

NURSE C: Yes.

ASTBURY: You have no recollection of that, but you have seen the note?

NURSE C: No, I have seen it there.

ASTBURY: Okay. Was there an event involving [Baby D] on that shift which you were able to recall with the police?

NURSE C: Yes. My memory was vague, but I do remember a collapse at about 1 or 1.30, whatever time is written on my statement. I remember that.

ASTBURY: What do you recall of that event in particular?

NURSE C: My memory has deteriorated since, but I remember her being stiff and having a rash on her trunk, on her abdomen.

ASTBURY: Okay. So you've had a look at your statement this morning to refresh your memory?

NURSE C: Yes.

ASTBURY: And your recollection now is it was some time between 1.00 and 1.30?

NURSE C: Yes.

ASTBURY: Do you remember how your attention was drawn to what went on?

NURSE C: No, I don't.

ASTBURY: Do you remember whether you were in the room when you were alerted to it?

NURSE C: No, I don't remember that.

ASTBURY: Do you remember who was there?

NURSE C: Um... I... I recall from my statement this morning that Caroline Oakley wasn't there. I can't remember specifically anyone else.

ASTBURY: So Caroline Oakley, who was the designated nurse, wasn't present at the time?

NURSE C: No.

ASTBURY: Did you see her later at some point during this particular event?

NURSE C: I can't remember that.

ASTBURY: All right. What you told us a few moments ago was that you did remember something about [Baby D]'s appearance --

NURSE C: Yes.

ASTBURY: -- when you were alerted to it. Does that mean that you, correct me if I'm wrong, went into the room?

NURSE C: Yes.

ASTBURY: And that you saw [Baby D]?

NURSE C: Yes.

ASTBURY: Did you play a part in her, what we've heard, resuscitation that then took place?

NURSE C: Is that the 1 o'clock?

ASTBURY: Yes?

NURSE C: I will have done, but I can't recall what exactly.

ASTBURY: All right. But you saw [Baby D]?

NURSE C: Yes.

ASTBURY: Tell us what you saw, please, that you do remember.

NURSE C: I remember her skin was discoloured and that she was quite stiff in appearance with her arms kind of back a little bit. That's how I remember it now. And the discolouration was like a mottled appearance, which is like white circles of skin with a discolouration around it, which was like a reddy colour. It was an odd -- I remember it because it was an odd rash, it was unusual.

ASTBURY: Okay, if we break that down. So some mottling -- we have heard that mottling in some circumstances is seen on babies in different times?

NURSE C: Yes.

ASTBURY: Are you saying this was different from that type of mottling?

NURSE C: Yes, because usually in the type of mottling that I would say was usual -- well, is seen commonly in a baby that might need some attention is the baby will be blue or grey and the mottling -- that colour mottling is around the white patches, whereas this was not that colour. I remember from my statement this morning that I've written that it was like a reddy-brown colour. It was unusual because it didn't match a colour that I'd seen before.

ASTBURY: It was unusual in colour?

NURSE C: Yes.

ASTBURY: Are you able to tell us where you saw this?

NURSE C: On her abdomen and -- well, her trunk, so chest and abdomen.

ASTBURY: Was there a particular shape to the discolouration?

NURSE C: Um... I remember mottled, and mottled to me would be like patches of almost circular white skin surrounded by (overspeaking) --

ASTBURY: So circular white skin with this reddy-brown colour around --

NURSE C: Around it, yes.

ASTBURY: Limited to the -- I think you indicated chest and abdomen?

NURSE C: That's what I remember.

ASTBURY: Okay, all right. Nowhere else?

NURSE C: I can't remember that now.

ASTBURY: Had you seen this before?

NURSE C: I want to say I had, but I can't remember specific babies. I'd seen it recently. I hadn't seen it in previous...

ASTBURY: So you think you might have seen it at a time recent to the event we're talking about?

NURSE C: Yes.

ASTBURY: Before or afterwards?

NURSE C: I can't remember.

ASTBURY: All right. You told us a little bit about your experience when you first began to give evidence.

Something you'd seen -- outwith that immediate time around 21 June, is it something you'd seen before, something you were familiar with?

NURSE C: I can't remember now because the interview was so much later, it's hard to remember. I don't know. I can't remember, I'm sorry.

ASTBURY: Concentrating on the period around this, had you seen it before? Ahead of that period -- so if we exclude the period that you're talking about, seeing it, as you said, recently, either before or after, is it something you were familiar with in the years before from your experience?

NURSE C: No, I've not seen it prior to that, no.

ASTBURY: Tell us what you remember, please, if anything, about the resuscitation and how it progressed at that stage -- or the treatment.

NURSE C: Um... Very little now. So for that particular incident at 1 o'clock or do you mean generally?

ASTBURY: I haven't gone on to the other incident. Let's just deal with that incident first.

NURSE C: I don't remember very much about it at all now.

I remember she recovered from that but I can't remember specifically what we did. I remember that we -- Dr Brunton reviewed her. So he was called to review her, but I can't remember the exact sequence of events.

ASTBURY: Okay. Were you there when Dr Brunton came and reviewed her?

NURSE C: I will have been, but I don't specifically remember it.

ASTBURY: Do you happen to remember whether the discolouration that you described was still there when Dr Brunton came?

NURSE C: I can't remember. I know from my statement that I said it resolved but I don't know when -- I can't remember when that was.

ASTBURY: By resolved do you mean dissipated, disappeared?

NURSE C: Yes.

ASTBURY: Are you able to tell us roughly how long that took?

NURSE C: I can't, I'm afraid, no.

ASTBURY: All right. Did, do you know, Dr Brunton call anybody else as a result of this particular episode?

NURSE C: I think he spoke to the consultant.

ASTBURY: Do you remember who the consultant was?

NURSE C: From the notes it was Dr Newby.

ASTBURY: Thank you.

MR JUSTICE GOSS: You're speaking quite softly --

NURSE C: Sorry.

MR JUSTICE GOSS: -- and obviously you're addressing your answers towards Mr Astbury. Address them to the jury, please. Thank you.

MR ASTBURY: My fault, not yours, sorry.

You mentioned another occasion. Can you tell us anything about -- anything else that you recall from that night?

NURSE C: So later on, a similar event happened again where [Baby D] desatted and again I can't remember the exact circumstances around that. I remember being made aware of it but I don't know how I was made aware of it. And yeah, um... I believe that was similar in that she was given some treatment, reviewed, and recovered from that acute event.

ASTBURY: Did you see [Baby D] on the second occasion that you just told us about?

NURSE C: Again, I will have done, but I don't specifically remember.

ASTBURY: And do you remember anything specific about that second event, anything you saw or heard?

NURSE C: Nothing specific.

ASTBURY: All right. When you say that [Baby D] recovered, do you remember anything in particular about her recovery?

NURSE C: No.

ASTBURY: May I ask, was there any other incident involving [Baby D] that particular -- we're into the morning now.

NURSE C: Yes.

ASTBURY: Do you remember what --

MR JUSTICE GOSS: We've always been in the morning.

MR ASTBURY: Well into the morning, sorry.

MR JUSTICE GOSS: The first incident was 1.00 to 1.30, it's in the morning.

MR ASTBURY: I meant well into the morning. Do you remember the time of the second incident?

NURSE C: Again, from reading my statement this morning, at about 3.45.

ASTBURY: Were there any other incidents involving [Baby D]?

NURSE C: So shortly after -- so the second and third incidents were close together.

ASTBURY: Right.

MR MYERS: My Lord, the witness made reference to having read her statement. She said she remembered the second incident was 3.45. I have the statement -- so there's no confusion, to assist, she said the second incident was 3 o'clock and then the next one was 3.45.

NURSE C: Sorry, so the third incident.

MR JUSTICE GOSS: Yes.

MR MYERS: Just to be quite clear of the timings. It's from the statement. I'm only saying it to assist (overspeaking) --

MR JUSTICE GOSS: Thank you very much, Mr Myers. The first was 1 to 130. The second in your statement, which was made on what date? We haven't had the date of the statement yet.

MR ASTBURY: 17 February 2018.

MR JUSTICE GOSS: Right.

MR ASTBURY: 7 February.

So 3.45. Tell us, please, what you recall of that third incident at 3.45.

NURSE C: I recall her desaturating, again, or being -- notified of that in some way -- again, I can't remember whether I was called to the room or whether I heard an alarm go off, go into the room. She was desaturating and somebody called, I can't remember who that was, for a medical review, and before Dr Brunton got to the unit, we were doing full resuscitation, ventilation breaths and cardiac compressions.

ASTBURY: "We were doing"; do you remember who was there with?

NURSE C: Caroline Oakley was there, Lucy Letby was there and myself. They're the people I remember. I don't remember -- I know the other staff who were on, but I can't remember who else was...

ASTBURY: All right. You told us the various measures that were being taken. Do you remember who was doing what?

NURSE C: No, I don't remember.

ASTBURY: Did others come to the room once those resuscitation attempts were underway?

NURSE C: Yes, we got the registrar on call, who was Dr Brunton.

I think the SHO came as well but I'm not sure when and I can't remember her name. And then Dr Newby would have been called as well and would have arrived slightly afterwards.

ASTBURY: Any other nurses or members of staff from the unit?

NURSE C: Um... One of the band 4s, Liz Marshall, came in at some point, and wrote the times of the resuscitations, what's called scribing, so we know what time the medications were given, what time chest compressions were done, so there's a record, and she did that for us.

ASTBURY: So as a scribe she notes down each event. Where would that be noted, anywhere in particular?

NURSE C: It was time it's noted on a piece of paper and then it is transcribed into the medical notes which were paper at the time.

ASTBURY: So urgency requires an immediate note on anything?

NURSE C: On anything.

ASTBURY: And then it can be entered onto the more formal --

NURSE C: We have a form now but at the time we didn't.

ASTBURY: How did resuscitation progress on that occasion?

NURSE C: I can't remember definite events but I know that we gave medication, so we gave adrenaline and bicarb as part of that process. So we would have followed the kind of nationally recognised way of resuscitating a baby, but I can't recall that (inaudible) happened.

ASTBURY: Did everyone maintain the same roles that they had at the start?

NURSE C: Again I can't remember, but usually, no, because chest compressions are -- so normally, the doctor -- so the registrar, Andrew, I do remember maintaining the airway, that's his role for the duration of a resus, between him and then the consultant may take over that or they may stand back and have an overview. But everything else gets shared out amongst whoever else is there. So there'll be two nurses that need to draw up and give the medications, but the chest compressions change people, because it's actually hard work, even on a small baby.

You need to maintain effective chest compressions so those roles may well have been swapped around but I can't remember who did what at what time.

ASTBURY: Okay. Was ultimately resuscitation successful?

NURSE C: No, it wasn't.

ASTBURY: We've heard that a decision was made to stop resuscitation at 4.25 am.

NURSE C: Yes.

ASTBURY: Do you remember the parents being present?

NURSE C: I know they were there, I can't specifically recall them.

ASTBURY: After that decision was made, did you have any further involvement with [Baby D] or those particular events?

NURSE C: I can't remember having any further contact but I may have done.

ASTBURY: Did you recall any conversation you had with Ms Letby after the incident had finished?

NURSE C: Yes, I did. We had a conversation about the resuscitation drugs that we were using. The process on the unit is to, and this is common throughout any neonatal unit, is to have standardised dosing. So there's a sheet of paper, it's laminated, that has weights down one side and then the doses and the volume of drug that you give for each of the resuscitation drugs, there's only three or four, so that you can say that this baby is about 3kg and you give those volumes and it's all printed out for you.

That is the normal process. So for this resuscitation, we couldn't find that chart, it was there, but we there's a lot of other bits of paper around so we went off the actual dosing for [Baby D]'s weight -- I can't remember her weight now -- which are doses that I knew and Dr Brunton knew and we went off those doses. So afterwards I remember Lucy asking me how I knew those doses because it's not the common practice in the unit in Chester or in neonatal units generally.

ASTBURY: Let's just pause there. You couldn't find it during the course of the resuscitation?

NURSE C: (Overspeaking).

ASTBURY: Where would it normally be?

NURSE C: It normally sits on the side of the resus trolley.

There's a bar and a clipboard and it hangs on there.

ASTBURY: Is the resus trolley, as it were, kept in the nursery for as and when it's needed?

NURSE C: Yes.

ASTBURY: Is it stocked with whatever might be needed?

NURSE C: And checked (inaudible) --

ASTBURY: And part of that is this chart you told us about?

NURSE C: Yes.

ASTBURY: How big is the chart?

NURSE C: It's a A4 piece of paper.

ASTBURY: Is it just a loose piece of paper?

NURSE C: Yes, I think it was -- it's laminated, but yes. It's one separate piece of paper.

ASTBURY: You mentioned that you -- I'm trying to think of the words you used, you were able to do the calculations --

NURSE C: Yes.

ASTBURY: -- from your experience?

NURSE C: Yes.

ASTBURY: And when Ms Letby raised it with you and asked how you'd done that, I think we've got that far, where did the conversation progress from there?

NURSE C: Just that I know those doses because I've worked in ITU areas for a long time. There's only three or four drugs that we give routinely in resuses and I think it's worth having those doses in your head and I recommended that she learn them. And yes, that was the conversation that we had.

ASTBURY: Okay. Did the A4 sheet turn up?

NURSE C: Yes, it was there. It just must have got missed in the stress of the situation.

MR ASTBURY: Okay, thank you. I have no more questions. If you could wait there, please.

Cross-examination by MR MYERS

MR MYERS: [Nurse C], I'm just going to ask questions on behalf of Ms Letby if that's all right.

Is it correct to address you as [Nurse C]?

NURSE C: Yes.

MYERS: Just this before we turn to the night in question: the period from June through to June 2016, which we're looking at in general in this case, did it seem to you, when you look back at it, that you did seem to be running at what's called a higher acuity than normal?

NURSE C: Yes, and a higher patient load as well.

MYERS: So it seemed to be more patients and more sick patients than before?

NURSE C: Yes.

MYERS: With regard to that evening, could we just have a look at the slide which we looked at at the start of your evidence with Mr Astbury at slide 168, please, just to look at the nurses and the babies.

If we scroll down we can see the way the nurseries looked. We know you're not in charge of deciding which staff were available or who is where; is that correct?

NURSE C: No -- I think so. We changed the process for shift leaders deciding -- and I can't remember whether that was. I think it was the shift leader from the day shift who would have allocated.

MYERS: In any event you have to work with whichever staff you have available to try and match staff to babies; is that right?

NURSE C: Yes.

MYERS: So when I ask this, I make it plain this isn't a criticism of you at all, but if we look here there are on this diagram 14 babies on the unit at this time.

NURSE C: Yes.

MYERS: We can see that you were working on the unit and you're a band 6. You're the shift leader.

NURSE C: Yes.

MYERS: In an ideal world the shift leader should be supernumerary, is that correct, not designated to any particular baby but on hand for whatever arises?

NURSE C: Yes, that's correct.

MYERS: But the way -- the staffing numbers were such that you had no alternative but you would have to take responsibility for some of the babies? We can see in nursery 2, actually, if we look at it.

NURSE C: Yes. Without knowing the designation in terms of whether they were ITU or HDU babies, that is a bit tricky. The

only person who on that slide could have had another baby would have been Elizabeth Marshall.

She's got three babies on there and technically she could have four.

MYERS: Yes, because special care, which is nursery 4, usually, can be one nurse to four babies, can't it?

NURSE C: Yes.

MYERS: But at the other end of that, if we look at intensive care and someone like [Baby D], who we can see on here, we know that at this time [Baby D] had an umbilical venous catheter which puts her in the category of intensive care.

NURSE C: It does make her intensive care, yes.

MYERS: She's being looked after by Caroline Oakley --

NURSE C: Yes.

MYERS: -- who also has a baby in nursery 2?

NURSE C: Yes.

MYERS: So again, not your doing, but not really what the guidelines say, is it?

NURSE C: It's not what the guidelines say. However, the ITU guidelines are quite specific, so in terms of looking after a baby who's ITU because they're ventilated or on multiple inotropes, obviously that is a much bigger workload for one nurse than having a baby who's got an umbilical line in. While that baby needs close attention, it's a different level of care, but it still comes under ITU.

MYERS: But certainly if we go from what the guidance is, it should really be one-to-one for [Baby D] and that nurse only looking after [Baby D]?

NURSE C: That would be the ideal, yes.

MYERS: Just to go through what you've said about the night in question, you were asked, as a preliminary question, about whether or not it was quieter at night.

NURSE C: Mm-hm.

MYERS: I think you said in terms of number of doctors and auxiliary staff there may be fewer of them?

NURSE C: Yes.

MYERS: In terms of the babies, generally speaking, their needs might apply whatever time of day or night, mightn't they?

NURSE C: Um... Yes. Um... If -- yes, but there will be routine things that happen during the day that don't happen at night.

MYERS: But you'd still endeavour to have the right number or nurses to babies at night as you would in the day, wouldn't you?

NURSE C: Yes, the ratios are the same, yes.

MYERS: Just to go to what you can help us with in terms of the events in the early hours of the morning of 22 June, I'm going to help, if I may, just to make this clear. In your statement that you made on 7 February 2018 you give times to each of the three incidents that we're looking at.

NURSE C: Yes.

MYERS: Just to help, the first incident you put at 1.30 in the morning, the second incident at 3 am --

NURSE C: Right.

MYERS: -- and the third incident at 3.45.

NURSE C: Right.

MYERS: That's you doing your best to put the times on those according to the notes and whatever you can remember --

NURSE C: Yes.

MYERS: -- 3 years later.

NURSE C: Yes.

MYERS: All right? Again just so we can be quite clear, there was one occasion, this is a matter of record, on which there was resuscitation, and that was the third occasion?

NURSE C: Yes.

MYERS: I think there was reference made to the first time she was resuscitated but it's one time that resuscitation took place, isn't it?

NURSE C: I think so.

MYERS: The third?

NURSE C: Yes.

MYERS: On the first occasion I just want to ask you a little bit about the rash that you've told us about. When you gave evidence about it a few minutes ago, you described it as mottled, white circles with a reddy colour, and you said it was an odd colour, reddy brown. I've summarised it a bit --

NURSE C: Yes.

MYERS: -- but I've gone to the descriptions you gave of the rash.

NURSE C: Mm-hm.

MYERS: When you made the statement what you said, I can show it to you, but perhaps I could read it to you. What you said about it then was:

"It was mottled in colour. I'd say it was like circles with a blood supply around them."

You said.

NURSE C: Yes, mm-hm.

MYERS: So we can follow, is that how you remembered it when you came to tell the police about two and three-quarter years later or to any extent is that what you had, having spoken to other people and at all been influenced by what they said? If you could help us with that.

NURSE C: No, that's how I remember the rash.

MYERS: All right.

NURSE C: It's not really a rash, but yeah.

MYERS: In terms of red or reddy-brown, is that something you recall? I only ask because you didn't use the expressions red or reddy-brown in the statement and I just want to ask, is that something you can see in your head now when you look back at it?

NURSE C: Yes, I can remember the --

MYERS: All right. And did you see for how long that lasted or are you unable to say?

NURSE C: I can't say that now, I can't remember.

MYERS: So it's something you certainly saw in whatever period of time you looked at [Baby D]?

NURSE C: Yes.

MYERS: More than that, you just can't say?

NURSE C: No.

MR MYERS: All right. In fact, that's all that I need to ask, [Nurse C]. Thank you very much?

MR ASTBURY: I have nothing further, my Lord. Does my Lord have any questions?

MR JUSTICE GOSS: No, I don't, thank you very much indeed.

But you will be required again, as I understand it.

NURSE C: Yes.

MR JUSTICE GOSS: You're aware of that?

NURSE C: Yes.

MR JUSTICE GOSS: So that completes your evidence for today, but you'll be coming back later during the course of the trial, so when you leave here please don't talk to anyone about your evidence, anything to do with this case, the questions you've been asked, and we'll see you again whenever you're required to come back again.

Thank you very much indeed.

NURSE C: Thank you.

(The witness withdrew)

MR ASTBURY: My Lord will recall we updated the witness list running order on Monday, anticipating a significant amount of translation during the course of today's evidence, which in fact didn't come to pass. Having done so, I suspect we wouldn't be where we are now and that was our last live witness available for today, I'm afraid, given our best efforts to plan accordingly.

MR JUSTICE GOSS: Yes. And there are no statements to be read?

MR ASTBURY: There are two very short statements to be read, which would not be a problem. Whether that is this afternoon or whether first thing tomorrow.

MR JUSTICE GOSS: When you say short, are we talking about 5 minutes or 10 minutes?

MR ASTBURY: Ten minutes, I would imagine.

MR JUSTICE GOSS: Well, shall we hear those statements now and then end the day if that's possible? And then you can go.

Witness statement of EMILY THOMAS (read)

MR ASTBURY: The first statement is from Emily Thomas.

Emily Thomas signed her witness statement on 21 November 2017. She says:

"I qualified as a doctor in 2011 and I have just recently started my fourth year specialist training programme in paediatrics with the intention of becoming a consultant paediatrician."

She says where she's currently working and describes her rotation around the Mersey and North-west Deanery, each 6 months:

"I started my paediatric training at Liverpool Women's Hospital in September 2014 and in early March 2015 I transferred to the Countess of Chester. While working at Chester I lived nearby."

On Sunday, 21 June 2015 I was working on a night shift going into a Monday. I remember the shift was quite busy and I spent a lot of time on the children's ward. Andrew Brunton was the registrar who was working with me. He had been called a couple of times during the night to treat a baby called [Baby D] on the neonatal unit.

"Having refreshed my memory by looking at the notes, I remember [Baby D] had an unusual episode where she came out in a rash. This occurred around 1.30 in the morning. I remember taking a look. I would describe the rash as almost having the appearance of a meningococcal type rash. It was purple in colour and mainly over the abdomen. Andrew called the consultant, Dr Newby, for advice. She came into the unit and reviewed the care and added an extra antibiotic into [Baby D]'s treatment. [Baby D] seemed to settle down and the rash appeared to fade.

"But then later, [Baby D] had another episode where she desaturated and Andrew went to see her again. Around 4.30 in the

morning I was on the neonatal unit, I was in either room 2 or 3. I was with another baby that I think needed a septic screen and I was in the middle of trying to insert a cannula or reviewing this baby when I heard a member of staff shouting for help in room number 1.

"I'm not sure but I think the member of staff was a nurse called Lucy. I recall that she had brown hair and was the designated nurse for [Baby D]. This nurse later became very upset in front of me. I believe she had been the designated nurse for [Baby A] who died on the unit only a couple of weeks previously. I think she said something like, 'This is my second baby that this has happened to'.

"I ran into room number 1 and there were either one or two nurses already there beside the incubator. I think the nurse that had called for help was bagging [Baby D] because she was struggling to breathe and her oxygen levels had dropped. I could see from the monitors that her oxygen levels were falling and her heart rate was dropping. I asked one of the nurses to put out a crash call to urgently summon the registrar and Dr Brunton arrived shortly afterwards. We started a full resuscitation and she was given adrenaline.

"I remember Andrew asked a nurse to get the consultant on the phone. I think it was Nurse Kathryn Percival that passed the phone over to him. He explained the situation that he was conducting a full resuscitation. He thought he was talking to Dr Newby but there had been a mix-up and in fact he was talking to [Baby B]'s mother. The mistake was awful and I was completely shocked. [Mother of Babies A & B]'s son, [Baby A], had already died on the unit. Dr Brunton was mortified about the mistake and also shocked when he learnt who was on the phone.

"Dr Newby arrived shortly afterwards and [Baby D]'s parents were also called down to the neonatal unit and were present during resuscitation.

"Very sadly, resuscitation attempts were unsuccessful and we eventually stopped after several rounds of adrenaline. I do not recall seeing the rash on [Baby D] during resuscitation attempts and I don't think there were any other babies in room 1 during this time.

"I later discussed [Baby D]'s treatment with Dr Brunton and he updated her medical notes."

And she describes how, some months later, she moved to Alder Hey Hospital in Liverpool.

Witness statement of ELIZABETH MARSHALL (read)

MR ASTBURY: Moving on, my Lord, to Elizabeth Marshall, who we've heard mentioned. She signed a statement on 18 December 2017. She says:

"I am currently employed at the Countess of Chester Hospital as a band 4 neonatal assistant within the neonatal unit. I have reviewed the nursing notes for [Baby D] to refresh my memory for this interview.

"I was working a night shift on Sunday, 21 June through to Monday the 22nd. Caroline Oakley, Kate Ward, [Nurse C] and Lucy Letby were all working on the shift. I do not remember who the designated nurse was for [Baby D].

"At this time there was a transitional care system in place. This allowed babies that were premature but did not require monitoring or respiratory assistance to stay with their mother upstairs on the post-natal ward and we would provide assistance with their feeding. On this particular shift I was caring for [and she gives the initials] AH on the post-natal ward and two other babies, IR and NM, on the neonatal unit. Neither of these two babies were located in room 1.

"I do not remember where I was or how I was informed that [Baby D] had collapsed and was informed that a resuscitation attempt was in progress. When I entered room 1 I saw Lucy Letby giving chest compressions. Caroline Oakley was present as was Dr Newby, and I think [Nurse C] was also there. There might have been other doctors present as well but I'm not sure. I know Kate Ward was working this shift but I don't recall seeing her at this time.

"I think they took it in turns to carry out the compressions on [Baby D]. I was not directly involved with the resuscitation, my only involvement was that of scribing. Caroline Oakley was shouting out what was going on and what drugs and doses were being administered and I was writing it down.

"I remember I wrote on a paper towel which I later handed to one of the doctors so they could update their notes.

"I was in the room for approximately 15 minutes when a decision was made to stop the resuscitation efforts and, sadly, [Baby D] died. I then continued with the care of the babies that I had been allocated.

"At the end of the shift the team had a quick meeting to discuss [Baby D] but there was no formal debrief as such and there were no conclusions as to what had happened."

MR JUSTICE GOSS: Thank you very much.

Right. Just by way of explanation, it was understood that all the questions that were going to be asked of Dr Rylance would have to be translated into French so the prosecutor could understand what the questions were and then the answers that Dr Rylance gave would have to be translated into French as well. You can appreciate that that would have taken at least twice as long as the process in fact took because it was ascertained this morning, before you came into court, by me that everyone could understand English. So there didn't need to be a translation, simultaneous translation, of what took place.

So Dr Rylance's evidence was a lot shorter than was thought was going to be the case and that's the reason we're finishing early this afternoon because witnesses can't just be called from clinical duties now to fill in gaps, I'm afraid. So it means it's an early day for you. But I thought it were better just to read those statements now than for you to have lunch and then come back for 10 minutes, which would have been more of a waste of your time. All right?

So that's it for today. We will continue again tomorrow. Remember, of course, your responsibilities as jurors in this case, as I'm sure you do. 10.30 tomorrow morning. Thank you.

(In the absence of the jury)

MR JUSTICE GOSS: Mr Astbury, I didn't raise the matter in front of the jury, but the evidence of Dr Thomas that was read as agreed evidence did not in fact accord to other evidence that has not been disputed in the course of the case. I just wonder why it was read out because it doesn't appear to meet the facts of the case, some of it.

MR ASTBURY: My Lord, apologies. We've obviously worked hard on editing the various witness statements into an agreed form. If we've missed that, I can only apologise.

MR JUSTICE GOSS: I just didn't want there to be any confusion. For example, that the defendant was the designated nurse.

MR ASTBURY: Yes. Well, again, I apologise for having missed that.

MR JUSTICE GOSS: And that there were -- the statement, I don't have it in front of me. She couldn't recall there being any other babies in the unit at the time, but there were other babies in the unit, as the chart shows. Not only the unit, in that room, in nursery 1.

Just in future, I think if there are those matters that are clearly mistakes, unless someone actually wants them in order to undermine the credibility of the witness, it would be more helpful not to have them.

MR ASTBURY: Noted. Thank you.

MR JUSTICE GOSS: Right. Because it just creates some potential confusion. I'm not going to say anything to the jury, but when I come to sum up the evidence I shall not refer to those errors.

MR ASTBURY: No, and we will be more alive to it in future.

MR JUSTICE GOSS: All right.

MR MYERS: It's not a witness we request or rely upon, it just happened to be included in what was read out, but yes, we don't make any reference to what she said.

MR JUSTICE GOSS: No, exactly. Clearly she was mistaken, but this was a stressful event that was taking place and she was just confused.

MR MYERS: Yes. The jury, I think, have the undisputed evidence of who was where in the nursery at the time.

They have the slide with that.

MR JUSTICE GOSS: Which is the basis upon which we're all proceeding and the basis upon which they should proceed.

MR MYERS: Yes, absolutely.

MR JUSTICE GOSS: Thank you very much.

(1.13 pm)

(The court adjourned until 10.30 am on Wednesday, 9 November 2022)