

23 January 2023

Baby H

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Monday, 23 January 2023

(10.30 am)

(Delay in proceedings)

(10.35 am)

(In the absence of the jury)

Housekeeping

MR JUSTICE GOSS: Mr Driver, I gather that it's not been possible to link up to Australia.

MR DRIVER: Not immediately. We don't know what the problem is but we will investigate, but it need not impede the progress immediately this morning: we can read some statements and call Dr Saladi.

MR JUSTICE GOSS: Thank you very much.

Jury in, please.

(In the presence of the jury)

MR JUSTICE GOSS: My apologies for the slight delay this morning. It had been hoped and planned for us to be linking up to Australia this morning for Shelley Tomlins, who you'll remember gave evidence from Australia last year, to have that at 10.30, but for some reason it has not been possible to link up, so we're going to do something else and carry on.

Witness statement of DR ASTHA SONI (read)

MR DRIVER: My Lord, may I hand up a copy of a statement from a witness, Dr Soni.

MR JUSTICE GOSS: Thank you.

MR DRIVER: Then, members of the jury, I will read the relevant parts of this statement to you. You may recall mention of Dr Soni on Friday and her clinical notes are on the chronology, obviously, and they begin at tile 321.

In the witness statement I'm about to read she makes reference to some of the notes that she created, so we'll read the statement and refer to the original clinical notes where relevant.

Dr Soni made a statement on 26 October 2018. She sets out her experience and qualifications and at our page 45, my Lord, she says at paragraph 18 of her statement, under the heading "Lucy Letby":

"I vaguely recall working with Lucy Letby whilst I was at the Countess of Chester Hospital between September 2015 and March 2016. I recall that Lucy Letby worked within the neonatal unit and as a neonatal nurse. I believe she would always ask for help if she was concerned."

So having dealt with that and other general matters she says:

"I worked at the Countess of Chester Hospital as an ST8 in paediatrics between September 2015 and March 2016."

MR JUSTICE GOSS: So that would be as a registrar?

MR DRIVER: Indeed, as a senior registrar.

She then speaks of [Baby H], date of birth 22 September 2015, and confirms that she, Dr Soni, had been provided access to [Baby H]'s notes.

She reiterates that [Baby H] was born at 34 plus 4 weeks' gestation. At our page 47, paragraph 28, my Lord, she says:

"I had no involvement until 24 September 2015 and I have recorded an entry in the notes at 15.30 hours."

That's in a different part of the note. I'll go back to that in due course. She says:

"I have recorded that Dr Gibbs spoke to [Baby H]'s parents because they were upset. They felt that they were not informed about the events that had taken place earlier that morning. Dr Gibbs apologised for this, but explained that stabilising [Baby H] was the priority for the medical team. The parents will be informed at the earliest opportunity from now on."

And you'll remember Dr Gibbs making reference to this on Friday, I'm sure, members of the jury.

Her note within the clinical records says:

"15.30. 24 September 15. Parents spoken to by Dr John Gibbs. Parents upset as they feel they were not informed about this morning's events in time. Dr Gibbs apologised but explained that [Baby H] was fine at 7 am and had sudden deterioration. Medical and nursing team's first priority was to stabilise [Baby H]. Parents were informed at the earliest opportunity but we still apologised for the delay if the parents feel that there was one."

Moving on -- and this is the entry behind tile 321:

"On 26 September 2015 I saw her on my ward round. There is an entry from me at 09.15 hours. My entry in the medical records..."

And if you put the actual records up, I'm grateful, Mr Murphy, it has the date and the time and the following detail:

"34.4, day 5. 35.2. Weight 2.530 kilograms. Problems: IDM, RDS, tension pneumothorax. Chest drain times 3. Presumed sepsis."

Then you can see the entries alongside a V in a circle for ventilation:

"SIMV 22/5. FiO2 6%. Sats greater than 95%. Rate [heart rate] 50 beats per minute.

"Chest drains times 3. Several needle thoracocenteses in last 48 hours. CVS: HR 140 to 149 minutes (sic). BP [blood pressure] mean 38 to 44."

The fluids are stated there. Other data -- I'm not sure it all merits reading out, but I will if anyone specifically asks me to:

"Had a blood transfusion last night. Sepsis. On benpen day 5 [a reference to antibiotics there]. CRP 6 yesterday. On examination settled. CVS 1/11/0. Chest: good chest wall movement, good air entry bilaterally."

She draws the familiar image of the chest that we've seen in many a clinical note previously. On this drawing has included three chest drains. And the note says:

"Not seen swinging or bubbling."

And you heard on Friday what a swinging or a bubbling chest drain means:

"Latest chest X-ray shows lungs re-expanded. Baby's abdomen was soft and not distended."

If we can scroll down a little more, Mr Murphy:

"Access: one long line. Cannula in the left hand. Area of pale ? ischaemic area."

And then the plan was to:

"Continue ventilation, wean pressures slowly if gasses allow. To continue the fluids. To add CRP on this morning's blood test regime."

I assume that means:

"Discuss with Arrowe Park or Liverpool Women's Hospital about the possibility of a transfer. Discuss with Dr Saladi about the possibility of taking the first drain out. Re-cannulate and inform if concerns."

So returning to the witness statement it says:

"In summary [Baby H] was 5 days old and had three chest drains in situ at this point. She was on a ventilator. I have summarised the relevant points from the previous night. At that stage she was relatively stable. I noted that her left hand, which had her cannula in place, was pale, which is possibly due

to ischaemia. My plan was to wean her ventilation slowly, as she tolerates, to continue the same fluids, and to review the fluid balance every 12 hours.

"I added an additional blood investigation of CRP. I was also to discuss with Arrowe Park/Liverpool Women's Hospital regarding her management, update and whether transfer was available. I was also to discuss with Dr Saladi, the consultant, if we should take the first chest drain out."

There's a further entry made by me at 11.45.

I think that would be behind tile 341, please, Mr Murphy.

This is a record of a communication with Arrowe Park, effectively:

"I discussed [Baby H]'s case with Dr Rath at Arrowe Park Hospital. My note reads as follows:

"Discussed with Dr Rath, consultant neonatologist, Arrowe Park. Explained [Baby H]'s clinical condition, if they want her to be transferred over. They wouldn't at present as difficult to transfer with drains and stable (sic) but advised to (1) clamp the drain, to repeat the chest X-ray in 6 hours, and if no re-accumulation then take that drain out.

"(2) Possible cause for cardiac arrest could be that a drain is too close to heart and touching pericardium. Can [the note says 'put' but the doctor thinks she meant to write 'pull'] drain out if too far in. Shouldn't be close to midline.

"(3) To get access for invasive blood pressure monitoring. To have an arterial line.

"(4) To update him [that is Dr Rath] this evening or earlier if deterioration or things change. Parents updated about the plan."

In summary the doctor says:

"I asked them whether they would like us to transfer [Baby H] over to Arrowe Park and they said they would not advise that as she was unstable and had three drains in situ but gave me advice about further management."

That advice is as per the note and unless I'm requested to do so, I don't read it out again.

The next and final note is an entry made at 20.20 hours, which, Mr Murphy, should be behind tile 393.

It's a brief note that says:

"Chest drain number 1 taken out as chest X-ray showed no accumulation."

The witness statement says:

"The chest drain was removed as there was shown to be no accumulation.

"According to the medical records [Baby H] had another deterioration overnight. I was not involved at that stage. She was transferred to Arrowe Park Hospital that night. I had no further involvement in the care of [Baby H]."

So that's Dr Soni's contribution.

My Lord, I've been passed information to the effect that we can now link to Australia.

MR JUSTICE GOSS: Yes, thank you very much.

MS SHELLEY TOMLINS (recalled)

Examination-in-chief by MR DRIVER

MR DRIVER: Good morning, Ms Tomlins. Can you see and hear us clearly?

TOMLINS: Yes, I can.

DRIVER: I'm grateful. Could you state your full name for the record, please?

TOMLINS: Shelley Anne Tomlins.

DRIVER: I think you anticipate that we're going to ask you questions today about the events on the night shift of 26 September 2015; were you aware of that?

TOMLINS: Yes.

DRIVER: I'm grateful. Have you had the opportunity to refresh your memory from a witness statement that you made about your involvement with baby [Baby H] during that shift?

TOMLINS: Yes. I read it around 10 days ago because I thought I was due in court on the 13th, so I haven't read it since then, but I'm somewhat refreshed.

DRIVER: I'm grateful. I'm going to take you to the nursing notes that you made during that shift and we'll use that as the basis -- as a structure to your evidence. Do you understand?

TOMLINS: Yes.

DRIVER: Mr Murphy, could we go to tile 392, please, and the notes that lie behind it.

It's the large entry at the right side of the page, thank you.

Ms Tomlins, can you confirm that you can still hear me?

TOMLINS: Yes, I can.

DRIVER: Thank you. Could you confirm that you can see on screen a section of nursing notes that bears your initials and is timed as being created at 22.53 hours on 26 September 2015?

TOMLINS: Yes. It's slightly fuzzy -- oh, that's better, thanks.

DRIVER: Good, I'm grateful. So we know that you were working a night shift on this day. Can you confirm that you were the designated nurse for [Baby H]?

TOMLINS: Yes, I was.

DRIVER: As you've told us previously was your practice at the start of the shift, would you have checked the baby's fluids, medical infusions, the apparatus, the endotracheal tube, the ventilator settings and would you have checked the CPR equipment?

TOMLINS: Yes, I would have checked all of it.

DRIVER: Thank you. Your note tells us, and could you confirm, that when you took over the care of [Baby H] she was already ventilated with a size 3.5 tube, which was initially 8 centimetres at the lip, but at some point changed to a position at 7.5 centimetres?

TOMLINS: Yes, I can confirm that.

DRIVER: Thank you. Your note tells us that good air entry was heard bilaterally. Was that a piece of monitoring that you undertook or was that information provided to you by your predecessor?

TOMLINS: Probably both. So we would check with a stethoscope every hour for air entry ourselves.

DRIVER: Thank you. And can you confirm that when she came into your care that she was stable on the ventilator and that she had already three chest drains inserted into the left side of her body?

TOMLINS: Yes, I can confirm that.

DRIVER: And of the chest drains, two were the flutter variety and the third was a conventional chest drain?

TOMLINS: Yes.

DRIVER: One of which had been removed, you confirmed, did you, at 20.15 hours, so during your shift, the early part of your shift, Dr Soni removed a chest drain?

TOMLINS: Yes, at 8.15.

DRIVER: I'm grateful. Could you tell us how that went from your perspective?

TOMLINS: Um... Yes, I've written that she tolerated it well, so that probably means she was quite stable whilst we were doing it.

DRIVER: Thank you. And you also noted that some morphine, a morphine bolus, had been administered prior to this intervention. Would that simply have been for pain relief for the baby?

TOMLINS: Yes, it would have.

DRIVER: Let's now move on, please, to the event that occurred at around 20.30 hours, half past 8, during your night shift. Can you, with the assistance of the nursing notes to refresh your memory, tell us what you recall happening with [Baby H] at this time?

TOMLINS: Yes. I can't actually remember it, but from my notes I've written that she had a profound desaturation and brady, so her oxygen sats dropped and heart rate did as well and that we can no longer hear air going into the lungs via the ETT, so we had to remove it and call the doctors.

DRIVER: Thank you. So there's no audible evidence of air entering the chest and did you at this point also check the capnograph device?

TOMLINS: Yes, we did, and that was negative, so it wasn't detecting any carbon dioxide, so that confirmed that the ETT was blocked or dislodged.

DRIVER: Thank you. So a potential emergency situation. The doctors were crash called and was the tube removed?

TOMLINS: Yes, it was.

DRIVER: What did you find at this point in time?

TOMLINS: Um... Sorry, I'm not sure what you mean by the question. Do you mean how she was at that point in time or...?

DRIVER: Yes. Upon the removal of the ET tube, did that have the desired effect?

TOMLINS: Yes. So I've written that she bagged up well, so we were able to Neopuff her with a jaw thrust. "Bagging up well" means that their saturations improve when we do that, so she responded well to that.

DRIVER: Thank you. Did you -- and again please refresh your memory from this note -- examine the tube itself?

TOMLINS: Um... I'm just going to have a quick read.

DRIVER: Of course.

(Pause)

TOMLINS: I'm not sure. I haven't written that I have, so I can't remember. Usually, we would look at it to see whether it was blocked, but I haven't actually written what we could see, sorry.

DRIVER: That's okay. I'm referring to the part of the note that begins:

"Copious secretions obtained via ETT and orally, bloodstained."

TOMLINS: Ah. One moment. Yes, it's hard to know whether that means from the first ETT that we had to remove or whether it's from the new one. I think from the new one but it's hard to be completely sure.

DRIVER: Thank you. If you're uncertain then don't hesitate to say so.

TOMLINS: Okay, thanks.

DRIVER: So it would seem that Dr Neame responded to the crash call; is that right?

TOMLINS: Yes.

DRIVER: And it was him, Dr Neame, who introduced a new ETT?

TOMLINS: Yes, it was him, yes.

DRIVER: So you leave open the possibility that the copious secretions that you record as being obtained may have been obtained from the original ET tube in place when you took over care or obtained from that inserted by Dr Neame at around 8.30; is that correct?

TOMLINS: Yes. I think judging by where I've written that in the kind of sequence of events in the notes, I think it does mean the new one. But yeah, hard to be -- I think that's what it means.

DRIVER: The next entry in the nursing notes seems to be a plan of action; is that right?

"For frequent suction overnight, one to two-hourly."

TOMLINS: Yes. Just because of the amount of secretions, yes.

DRIVER: So that's a reference to suction from the ET tube; yes?

TOMLINS: I think probably ETT and orally, but in particular the ETT to stop it blocking with all the secretions.

DRIVER: Thank you. Thereafter, there is reference to the fluid regime and then, finally, a report of [Baby H]'s general condition; is that right?

TOMLINS: Yes, that's right.

DRIVER: Thank you. So at this stage, that event having occurred, Dr Neame having addressed the issue, are you able to remember how [Baby H] was, what sort of condition she was in at this point in time?

TOMLINS: I can't remember off the top of my head, no, unfortunately.

DRIVER: Very well. Looking down the page, your next entry, made a little later, but a record of a further event at 21.45 hours; do you see that?

TOMLINS: I think it needs to be scrolled down so I can see, sorry.

DRIVER: You're probably right. You are absolutely right.

TOMLINS: Thanks.

DRIVER: There we go, thank you. Do you see that brief note made at 23.09 and a reference to events at 21.45?

TOMLINS: Yes.

DRIVER: Can you tell us what happened at this point in time, please?

TOMLINS: Yes. So her oxygen saturation levels dropped to 40%, but this time we could still hear air entry and we could detect carbon dioxide on the capnograph, so the tube was in the right position. So she needed to be suctioned and they were thick and bloodstained, the secretions.

DRIVER: Right. Is that an unusual discovery, thick bloodstained secretions, in circumstances such as those that you were faced with this evening?

TOMLINS: Well, you wouldn't normally see bloodstains on an average day, but seeing as she'd just been re-intubated it's quite normal to see a little bit of blood after that because sometimes that procedure can cause a little bit of throat trauma. So it's not unusual in that it was just after being intubated.

DRIVER: Thank you. At the very bottom of this page there is a further note made later in the morning, but a note of events that took place at 00.55 hours. Do you see the single line at the bottom of the page?

TOMLINS: Yes, I can see that.

DRIVER: So we'll consider this. It says:

"Profound desaturation to 40% despite equal bilateral air entry."

We'll just pause at that part of that sentence for a moment.

Profound desaturation to 40%; 40% of what?

TOMLINS: Oxygen saturation of the blood down to 40%.

DRIVER: You noted that that happened, and your words, "despite equal bilateral air entry". Why have you phrased it in that way?

TOMLINS: I can't remember exactly, but I think because even though air was going into both lungs, she still desaturated to 40%, so I think that's why I've used the word "despite".

DRIVER: Thank you. If you could just bear with us for a moment, I'll ask Mr Murphy, please, to take us to tile 442 and we'll see the remainder of this note. There we are.

Is that legible for you, Ms Tomlins?

TOMLINS: Yes.

DRIVER: So this is a continuation of the same sentence, which began:

"Profound desaturations to 40% despite equal bilateral air entry and positive capnography."

So does that flow from there, that you were satisfied that air was going in and carbon dioxide was coming out at this point?

TOMLINS: Yes, it does.

DRIVER: And did you undertake that investigation, as it were, to try and ascertain the cause of the profound desaturation?

TOMLINS: Yes, we would have wanted to check whether the tube was still in the right place or whether it had blocked from secretions.

DRIVER: Thank you. So did you check it, the tube, for secretions?

TOMLINS: Yes, and there weren't any, judging by what I've written.

DRIVER: So whatever was happening here wasn't being caused by a blocked ET tube?

TOMLINS: No, it wasn't.

DRIVER: What happened next?

TOMLINS: She went bradycardic at 01.07, so her heart rate dropped and she required chest compressions and adrenaline at 01.08.

DRIVER: So CPR, emergency CPR, was applied to the baby; is that right?

TOMLINS: Yes, that's right.

DRIVER: We'll hear from the medics involved in that in due course, but did you note in the records that a saline bolus was given to the baby during this, in addition to adrenaline?

TOMLINS: Yes, I did, yes.

DRIVER: And was the cold light test undertaken to try to determine whether or not there'd been a further pneumothorax?

TOMLINS: Yes, and there hadn't been.

DRIVER: Thank you. A chest X-ray was ordered to take a more thorough examination for potential pneumothorax. So having nursed [Baby H] during this time, can you offer any explanation as to why this desaturation occurred?

TOMLINS: No, I can't.

DRIVER: Looking a little further down your nursing note, we can see that there was a further event at 03.30 hours.

TOMLINS: Yes, I can see that.

DRIVER: Another, your phrase, profound desaturation, this time --

TOMLINS: Yes.

DRIVER: -- to the 60s. Is that another reference to the oxygen levels?

TOMLINS: Yes, it's 60-something per cent, that would have been.

DRIVER: On this occasion she required Neopuffing; is that right?

TOMLINS: Yes, she did, yes.

DRIVER: You note that there was "No known cause for desat".

TOMLINS: Yes.

DRIVER: Can we infer from that that you checked for what might be the predictable causes?

TOMLINS: Yes, so it said I can still hear bilateral air entry and capnography was still positive, so we checked.

DRIVER: Yes. Orally, it would seem there were copious amounts of secretions, pink-tinged secretions; is that right?

TOMLINS: That's right, yes.

DRIVER: Could you just explain to the jury, it might be obvious, these were "yielded orally". What's the actual method, what would you have done with the baby at that point to yield those secretions?

TOMLINS: I would have attached a suction catheter, like a long tube, to the suction machine and I would have opened her mouth and suctioned kind of, you know, under the tongue and off -- sometimes into the back of the throat a little bit as well, just got rid of whatever was in there.

DRIVER: Thank you. Does it follow from your next entry that you would have repeated a similar check or intervention with the ET tube?

TOMLINS: Yes, we would have, yes. So that involved, again, suction catheter on the suction tubing, the machine, and we have to temporarily disconnect the ventilator and put the catheter down the ET tube and then just pull back and see what's in there.

DRIVER: And what was in there on this occasion?

TOMLINS: Small amounts of secretions and pink-tinged -- so a little bit of blood.

DRIVER: Thank you. That amount, that yield, would that have been sufficient to block the ET tube?

TOMLINS: Um... You wouldn't normally -- I'm not too sure, but I wouldn't have thought a small amount would normally block it, but I suppose it depends how thick they are and whether there's already a build-up of secretions that have been there for a while.

DRIVER: The combination of the secretions recovered orally and the secretions recovered from the ET tube, taken together, would that in your opinion have been sufficient to have caused the desaturation?

TOMLINS: Yes, I do think that, given that there were so many in the mouth and a small amount in the tube, that could well have caused it, yes.

DRIVER: Thank you. Your next and final note in this part of the records simply confirms that later that morning, at 05.25, I believe, [Baby H] was handed over to the transport team from Arrowe Park and removed from the Countess of Chester; is that right?

TOMLINS: Yes, that's right.

DRIVER: Thank you. I'm referring to your witness statement now.

Can you recall whether or not you were with [Baby H] at all times during your shift, which would have begun at about 7.30 pm or thereabouts, and [Baby H]'s transfer from Chester to Arrowe Park at about 5.30 in the morning?

TOMLINS: I definitely -- I can't confirm that I was there all the time, no. There would have been times where I'd have to leave to go to the bathroom or go for a break or just leave the room to get something. So I most likely was not in the room the whole time.

DRIVER: Given [Baby H]'s status, if you, the designated nurse, had left the room for one or more of those reasons you've just spelt out, would she have been left unattended or would she have been put in the temporary care of another colleague?

TOMLINS: Yes, usually we would tell another one of the nurses that we were, you know, nipping -- they would cover us if we were on our break, but given that she was ventilated, she probably wouldn't have been left in the room on her own, but it might be that someone was maybe just hovering in the doorway or just outside the door.

But given that she was quite unwell I don't think we'd have left her alone, but I can't be sure.

DRIVER: Thank you. Finally, might I just ask you about some records regarding prescriptions and the medication given to [Baby H]. If you bear with us a moment. Mr Murphy, could you take us to tile 414, please. If you click on it.

Can you see that, Ms Tomlins?

TOMLINS: Yes.

DRIVER: Thank you. This, I believe, evidences you co-signing for sodium chloride; is that right?

TOMLINS: I'm just having a little look. I can see benzylpenicillin, but I don't think I can see sodium chloride there.

DRIVER: Perhaps my error then. If we could look towards the bottom of the page and see when it was scheduled for and when it was administered and when the note was made; can you see that?

TOMLINS: Yes. Scheduled for 8 and given at 22.12 and I was the co-signer.

DRIVER: And under user "N.LETL", can you confirm that's Nurse Letby?

TOMLINS: Yes, that is.

DRIVER: Are you able to say from memory or from this document who actually administered the medication to [Baby H]?

TOMLINS: No, I can't say. I can't remember and also sometimes the co-signer was the one that would give the medication, so you can't actually tell from these notes who gave it.

DRIVER: I'm sure we understand. Mr Murphy, could you take us to tile 415? I think this is the sodium chloride. It was my error, I got the two documents confused.

Can you confirm for us that you were the co-signer for this medication, an event that was filed at 03.44 hours?

TOMLINS: Yes, I can confirm that.

DRIVER: And the medication itself was administered at 03.42?

TOMLINS: Yes, that's right.

DRIVER: If I was to ask you whether, from memory or from this document, you're able to tell us who administered the medication, I anticipate you'll say I can't help us either way; is that right?

TOMLINS: That's right, yes, unfortunately.

DRIVER: If we could scroll down, we may have some more. Maybe that's just the same event as before. So we have an event at 22.13, an event at 03.42. And again, does the same apply? You can't say which of the two named nurses gave those medicines; is that right?

TOMLINS: Yes, that's right, I can't say.

DRIVER: But do these documents inform us that you were working in tandem with Nurse Letby on occasions during that shift?

TOMLINS: Yes, they do confirm that. We were checking medications together.

MR DRIVER: Thank you. I have no further questions to ask of you, but my learned friend Mr Myers will.

Cross-examination by MR MYERS

MR MYERS: Hello, Ms Tomlins. Can you see and hear me clearly?

TOMLINS: Yes.

MYERS: All right. When you made the statement to the police, Ms Tomlins, on 16 January 2019, you said that your general opinion of [Baby H] was that she was a very poorly baby. Is that your recollection of her as you look back?

TOMLINS: Yes, it is, yes.

MYERS: We know you were the designated nurse for [Baby H] on this night of the 26th and 27 September, weren't you?

TOMLINS: Yes, I was, yes.

MYERS: Was she the only baby that you were looking after that evening?

TOMLINS: Almost definitely. Usually when they were ventilated, we just had the one patient, so I think she'd have been one-to-one.

MYERS: So you were able to give her all of your attention apart from any points when you had to pop out of the room?

TOMLINS: Yes.

MYERS: I'm going to ask Mr Murphy to put up on the screen, Ms Tomlins, tile 387 first. This is a chart of observations, Ms Tomlins.

TOMLINS: Okay.

MYERS: Thank you. Can you see -- first of all, can I check, can you see the document?

TOMLINS: I can, yes.

MYERS: All right. And you can see this is for [Baby H] at the top and we're looking at the 26th into 27 September; can you see that?

TOMLINS: Yes, I can see that.

MYERS: Thank you. If we look across the top we can see timings that cover the shift that you were dealing with and we can see 20.00 through to 04.00. Can you see that?

TOMLINS: Yes, I can see that.

MYERS: If we look down, can we just look at the bottom of the chart, Mr Murphy, just to see the signatures? We can see SAT at the bottom of each of those observations.

Can you see that, Ms Tomlins?

TOMLINS: Yes.

MYERS: Is that your signature?

TOMLINS: Yes.

MYERS: Your initials, sorry.

TOMLINS: Yes, my initials.

MYERS: So does this show that at those times you were performing these observations and recording them with regard to [Baby H]?

TOMLINS: Yes, it does.

MYERS: And we're familiar or getting familiar with these charts now, so we know they have heart rate, respiration and temperature, don't they?

TOMLINS: Yes.

MYERS: So you will have monitored her for those and entered that into the paperwork, won't you?

TOMLINS: Yes.

MYERS: Then on the bit of the chart that we're looking at now, we can see various aspects of her condition and the equipment that you've recorded, handwritten on the left -- identified on the left-hand side; is that right?

TOMLINS: Yes, that's right.

MYERS: So on each hour that you've conducted these observations you'll also have entered them and put them in on the squares that we can see above your initials?

TOMLINS: Yes, that's right.

MYERS: Thank you. Next I'm going to ask Mr Murphy, if he would, please, to put up the IC care chart and the first part at T238, please.

Again, I'm just going to check, can you see the chart, Ms Tomlins?

TOMLINS: Yes. It's very fuzzy, but I can see the whole thing.

MYERS: All right. We'll enlarge some of the entries to help with that. If we look -- I'm going to look at the right-hand side of this chart and the lower entries where we can see your initials on the right-hand side.

TOMLINS: Okay.

MYERS: I don't know if it's possible just to have the top part, which shows what those relate to, just taken off and put above that. Thank you.

We'd seen previously on the observation charts how you were involved in those observations every hour, weren't you, Ms Tomlins?

TOMLINS: Yes.

MYERS: Did you also have these care checks to perform, certainly on the hours that we can see recorded here?

TOMLINS: Yes, for recording the amount of medication that's infused in the last hour.

MYERS: Right. And those are your initials on the right-hand side, aren't they?

TOMLINS: They are, yes.

MYERS: Thank you. Then just so we can see the other side of this chart I'm going to ask Mr Murphy to go to the left-hand side of the chart. So we can collapse that.

If we go to the left-hand part of the chart and enlarge that, please. It's a little bit difficult on the copy we have because it's not large enough yet to see all of the entries, but can you see your initials at the bottom right-hand part of the chart?

TOMLINS: I can, yes.

MYERS: They cover observations that you were performing at 20.00 hours, 21.00, 22.00, 23.00 and 24.00, don't they?

TOMLINS: I think so. Actually, my camera, video thing, is on top of those numbers, but I think that's what it is. My own head's blocking it, sorry. Thanks.

MYERS: Right. Does that help?

TOMLINS: That helps, thanks: 20, 21, 22, 23 and 24.

MYERS: All right, thank you.

Of course, those are the times that you enter, but in some cases doing these checks might take -- well, how long, 5 to 15 minutes, maybe longer, in total?

TOMLINS: Um... Yes, they probably wouldn't take as long as 15, but maybe 5 or 10 minutes if there's a lot of things to check. So they might not have been read exactly on the hour.

MYERS: All right. Not exactly, thank you. Just to see the period that goes after 24.00 hours for completeness, would Mr Murphy, please, put up T437?

Not so much on these, but if we look on the right-hand side -- and we'll enlarge it just to make sure you can see it, on the right-hand side of the chart, please, Mr Murphy. Just look up to the top. Are those your entries, Ms Tomlins, for 2 o'clock, 3 o'clock and 4 o'clock?

TOMLINS: Yes, they are.

MYERS: Thank you. If we just go to the left-hand side, please.

Can we scroll up to the top just to check the timings?

So we've got 1 o'clock, 2 o'clock, 3 o'clock, 4 o'clock there. Do you see that?

TOMLINS: Yes, I can see that.

MYERS: If we look down at the bottom, have you signed them off and made relevant entries for each of those times?

TOMLINS: I have, yes.

MYERS: We can see, I don't know if you can see it on this view, but on the 1 o'clock one you've recorded:

"Resus, desat and brady."

TOMLINS: Yes, I have.

MYERS: Thank you. I'm going to go to the notes, please, next, Mr Murphy. Can we go to tile 392, please?

I'm just going to go straight to a central part of the large note, recorded at 22.53. Mr Murphy, would you enlarge the large entry, please?

Are you able to read that entry or do you need it to be enlarged a little bit more, Ms Tomlins?

TOMLINS: It should be okay, actually.

MYERS: All right. You've described to us, and we can see in the notes, a description of a profound desaturation and bradycardia around 20.30 hours. Can you see that?

TOMLINS: Yes, I can see that.

MYERS: That was serious enough that the doctor or doctors were crash called; is that right?

TOMLINS: That's right.

MYERS: You described to us, Ms Tomlins, that [Baby H] was bagged up to assist with what happened; is that correct?

TOMLINS: That's correct.

MYERS: Do you recall at this time who it was that bagged [Baby H] or was involved in that?

TOMLINS: No, I'm sorry, I don't remember that.

MYERS: Can you recall if you were involved in that in particular?

TOMLINS: Probably, I imagine, but not completely sure. I think I probably was.

MYERS: You're working there on the basis that you were the nurse in charge and if this was happening, probably you were there, involved with it; is that what you're doing?

TOMLINS: Yes. Well, I wasn't in charge of the shift, but I was [Baby H]'s nurse, so most likely I was there in the room.

MYERS: Thank you. That's what I meant, but thanks for clarifying that.

TOMLINS: That's okay.

MYERS: In any event, if something like this happens, it would be expected, wouldn't it, that another nurse or nurses would come and assist if they were free to do so?

TOMLINS: Yes, because it was an emergency, most people would have to drop what they were currently doing and come, yes, so there probably would have been several of us in the room.

MYERS: When the doctor or --

MR JUSTICE GOSS: Sorry, "us"? You mean by that several other nurses in the room?

TOMLINS: There might have been, yes. If it was something that required any CPR then there probably would have been all of the nurses that were on shift would end up in that room to help, most likely, if it was possible.

MR MYERS: Even if it isn't CPR might you expect one or more nurses to assist if the doctors were coming and there was a reaction and a crash call on a situation like this?

TOMLINS: Yes, definitely. At least one nurse would always come and help, but probably more.

MYERS: Thank you. When the doctor attends, or the doctors, is it usually the case that she or he will take a history from the nurse or the nurses who are present?

TOMLINS: Yes, we would explain what it is that's happened, usually quite quickly if it's an emergency, yes.

MYERS: At this point in time, and please say if you can't, do you have any recollection of who would have given the history to whichever doctor attended?

TOMLINS: No, sorry, I can't remember that.

MYERS: If you're the nurse with principal responsibility for [Baby H], would it normally be you or that nurse who would at least discuss with the doctor what had been going on or what had happened?

TOMLINS: Yes, it's likely to have been the nurse who's actually got the patient in their care, but it's possible that it might also be the nurse in charge because they know what's going on with all the babies on the unit, so it could be them as well.

MYERS: By nurse in charge you mean the shift leader?

TOMLINS: Yes, the shift leader.

MYERS: You were asked some questions about the secretions that were found and whether they were found on the old -- on the ETT that was extracted and removed or the new ETT.

Do you recall those questions?

TOMLINS: Yes, I can, yes.

MYERS: Looking back at this now and looking at the notes, you're unable to say for sure which of the two that it was; is that right?

TOMLINS: I'm not 100% certain, but I feel it's probably -- it's most likely to be the new ETT, yes.

MYERS: Is a principal reason for you feeling that that when you read through the notes, when you look at them in order, you talk about the secretions being identified after you have talked about a new endotracheal tube being inserted?

TOMLINS: Yes. My notes don't say that we suctioned the tube and then found it not to be in the right place, it just says that it wasn't in the right place, there was no air entry, so we pulled it out and then we put a new one in and then I talk about the secretions. So I think it was likely that it was the new tube.

MYERS: So if it is the new tube then it would seem to follow that whatever the cause of this desaturation was, it isn't the blocked tube, the tube that was first in there being blocked?

TOMLINS: Sorry, can you repeat that question?

MYERS: Sorry, my fault. If the first tube didn't have the secretions on it then do you agree that would appear not to be the cause of the desaturation?

TOMLINS: I'm not completely sure because it could be that those secretions were already there when the first tube was in, we just didn't find them until we put the second tube in and then suctioned them out. So it is hard to be sure whether they were there when the first tube was in, if that makes sense.

MYERS: Yes. So in other words, if there are secretions in the area where the tube would be, they could play a part in blocking a tube, whether they get into the tube or they're simply around it and in the trachea?

TOMLINS: I don't know. I think they have to be inside the ETT to block it, but sometimes secretions around the ETT, I think, could probably cause a desaturation, but for them to actually

block it off they would need to be inside the tube or maybe kind of on the end, like in a plug on the very end of the ETT.

MYERS: Thank you. Just looking at the note, Ms Tomlins, about 15 minutes before this desaturation had the first chest drain been removed by Dr Soni?

TOMLINS: It had, yes.

MYERS: And we can see:

"First chest drain removed by Dr Soni at 20.15 hours."

Yes?

TOMLINS: Yes.

MYERS: As part of that procedure was [Baby H] given an intravenous injection of morphine?

TOMLINS: She was, yes, a bolus.

MYERS: A bolus of morphine, thank you. Could we just look, please, at tile 389, which shows the prescription chart for this. Tile 389. Can you see the chart, Ms Tomlins?

TOMLINS: Yes, I can.

MYERS: Thank you. Thanks, Mr Murphy, for enlarging it.

If we look across to 26 September 2015, the last one on that line, can you see it says:

"Time started 20.00 hours"?

The cursor is just on it now.

TOMLINS: Yes.

MYERS: We can see, by the way, this relates to morphine sulphate, doesn't it, the type of drug?

TOMLINS: Yes, it does, yes.

MYERS: We can see that on the left-hand side, ladies and gentlemen, in a box. It says "morphine sulphate".

Following down from the change of rate or infusion column on the right-hand side, just looking at the signatures there, the lowest signature is your signature, isn't it, SAT?

TOMLINS: Yes, it is.

MYERS: Your initials. Do you recognise who it is that's signed above you on that one?

TOMLINS: No, I don't, actually. I can't make that out, sorry.

MYERS: Are you familiar with Kathryn Percival-Ward's, as she was, signature at this time?

TOMLINS: I can't remember her signature, but I remember her well.

MYERS: Right, thank you. Can we just look down to the lower part of that page? We can almost see it, but if we just scroll down. We can see an entry saying -- can you see the entry on its own that says:

"26 September 15. Time started 20.05"?

TOMLINS: Yes, I can see that.

MYERS: This refers to -- it says a rate and then a dose. Do you recall what that applies to?

TOMLINS: Yes, it would have been the rate at which we were running the morphine infusion, so not the bolus. This is separate to that, the actual infusion. Although, actually, I think we gave the bolus from the same syringe, where the infusion was. Yes, one's the rate and one is the dose per hour of morphine.

MYERS: And do you recognise the signature or signatures there, certainly what we can see, where it says "nurse signature"?

TOMLINS: Um... It's vaguely familiar, but it's not super clear whose that is.

MYERS: In any event, do you recall that you were involved in the process of giving morphine intravenously to [Baby H] shortly before this desaturation?

TOMLINS: I don't remember it off the top of my head, but given that I've documented it and signed for it, then it's fair to say I most likely gave it, yes.

MYERS: Thank you. So the order of events is: intravenous morphine round about 20.00 hours first?

TOMLINS: Mm-hm.

MYERS: Then the chest drain removed by Dr Soni at 20.15 hours; is that correct?

TOMLINS: That's correct.

MYERS: And then there was this profound desaturation and bradycardia at 20.30 hours?

TOMLINS: Yes, that's right.

MYERS: Thank you. On the same entry, Ms Tomlins, you make the note, it's about five or -- sorry, we can go back to tile 392, Mr Murphy. Please could you enlarge the large note made at 22.53?

Can you see, Ms Tomlins, that after -- about five or six lines up, you've written:

"Copious secretions obtained via ETT and orally, bloodstained. For frequent suction overnight, one to two-hourly."

Do you see that?

TOMLINS: I can see that, yes.

MYERS: Did that reflect the fact that there was a concern that [Baby H] was accumulating secretions in her throat area that could interfere with the operation of the ETT and her breathing?

TOMLINS: Yes. So I think the concern was that she was accumulating it inside the lungs, which would make it possibly end up blocking the ETT. So I think the frequent suctioning would probably have been for the endotracheal tube.

MYERS: Right.

TOMLINS: So accumulating it inside the lungs.

MYERS: I just want to move to the -- we know there was a desaturation at 21.45. You've told us about that and we can see that's in the notes if we just scroll down.

Can you see that, Ms Tomlins?

TOMLINS: Yes.

MYERS: Then there's a desaturation at 00.55, just down at the bottom of that page. Can you see that as well?

TOMLINS: Yes.

MYERS: Could we move to tile 442, just for the second half of this section of notes. There is a further profound desaturation at 03.30; is that correct?

TOMLINS: That's correct.

MYERS: It's just in the second entry down.

TOMLINS: Yes.

MYERS: Just to be quite clear, you were asked questions earlier about the tube and her throat area and any blockage. Do you remember being asked questions about that?

TOMLINS: Yes, I do.

MYERS: We can see, if we look at the note, that it says:

"03.30. Profound desaturation to 60s, again requiring Neopuffing with no known cause for desat. Air entry still heard bilaterally and capnography positive."

Can you see that?

TOMLINS: Yes.

MYERS: So does that mean that on listening it could be heard that air was being drawn in during the breathing process; is that right?

TOMLINS: Yes.

MYERS: And if the capnography was positive, does that mean that carbon dioxide was being passed back out of her?

TOMLINS: It does, yes.

MYERS: So that would suggest that, notwithstanding the desaturation, she was still breathing during this period?

TOMLINS: Yes and the air was still coming in from the ventilator like it was supposed to and coming back out again.

MR MYERS: Thank you, Ms Tomlins.

Re-examination by MR DRIVER

MR DRIVER: Ms Tomlins, I'm just going to ask you a few questions about some of the documents that my learned friend took you to over the last 15 minutes or so.

Could we please begin by going to tile 437, Mr Murphy.

Can you see that document, Ms Tomlins?

TOMLINS: Yes.

DRIVER: Thank you. May I, before taking you to the detail, remind you that when we went through the nursing notes earlier this morning we focused upon your notes of events that you timed at 00.55 hours and then a little later at 01.07 hours; do you remember that?

TOMLINS: Yes.

DRIVER: So that was episodes of desaturation and bradycardia that required assistance at those times. With that in mind, could we then look at the times of your entries on both halves of this document?

Firstly, Mr Murphy, could you focus in -- thank you.

That's where I wanted to go. We can see that there are entries at 02, 03, 04, which you've initialled, but no entry made along the row that corresponds to 01; is that right?

TOMLINS: That's right, yes.

DRIVER: And 01 here is 1 in the morning, 01.00 hours, 1 am?

TOMLINS: Yes, 1 am.

DRIVER: Does it follow then that the data you collected at 2, 3 and 4 o'clock -- there was no corresponding collection of data at around 1 am?

TOMLINS: Yes, it doesn't look like we collected the data at 1 am.

DRIVER: And if we look at the other side of the same page, please. Mr Murphy is going to enlarge this, I think.

Can you see that clearly, Ms Tomlins?

TOMLINS: It's really small.

DRIVER: Would you like it smaller or bigger?

TOMLINS: Bigger, please.

DRIVER: Thank you. Is that possible? The section you've extracted, Mr Murphy. We'll just enlarge it, please.

I think that might be as good as we can get.

We can see here again the same time markers, 01, 02 03, 04; can you see that?

TOMLINS: Yes.

DRIVER: You can see that data has been collected and recorded at 2, 3 and 4 am?

TOMLINS: Yes.

DRIVER: But so far on this document, nothing at 01. If we could go down to the bottom of the page, same column, as it were, Mr Murphy. We can see in that first column, ie that which corresponds to 01, we do have your initials, but can we --

TOMLINS: Yes, I can see that.

DRIVER: Can we see what it is that you recorded at or around 01?

Does it read:

"Resus, desat, brady."

TOMLINS: It does, yes.

DRIVER: Is that your record of the significant event that took place at or around 1 am?

TOMLINS: Yes.

DRIVER: Would that note have been made at 1 am or would it have been made after the crisis was over?

TOMLINS: Probably after the crisis was over, I think.

DRIVER: The remainder of the entry in this column, we see it seems that somebody's written and then crossed out the word, is it "pulled"?

TOMLINS: That's what I thought too. I've been trying to work out what that says.

DRIVER: Does it say --

TOMLINS: It looks like -- sorry, go on.

DRIVER: No, no, what do you think it looks like?

TOMLINS: "Pulled back to 7.3/4 centimetres", I think.

DRIVER: Is that your entry or somebody else's entry?

TOMLINS: That's my writing, yeah.

DRIVER: That's your writing. What does it refer to? What's been pulled back?

TOMLINS: The ETT tube, I think.

DRIVER: The only other entry in this column is the word "nil", which has been entered along "Suction ET".

TOMLINS: That's right, yes.

DRIVER: Again, would those notes have been made at 1 am or would they have been made after the crisis has passed?

TOMLINS: Yes, I'm pretty sure after. There wouldn't have been time to do it at 1, I don't think.

DRIVER: Thank you. Could we please, Mr Murphy, go to tile 453?

This is an observation chart that was shown to you earlier. I'm sure you recognise this document.

TOMLINS: Yes.

DRIVER: Could we look at the times that the observations were made in the early hours of 27 September. Did you -- and we'll look for your initials at the bottom of the page in a moment -- note the data recovered from your observations undertaken at midnight?

TOMLINS: Yes. I can remember that from before.

DRIVER: 2 am?

TOMLINS: Yes.

DRIVER: 2 am or thereabouts?

TOMLINS: Yes.

DRIVER: 3 am and 4 am?

TOMLINS: Yes.

DRIVER: So we can see if we look across from when your entries began at 20.00 hours, 8 pm, through to 04.00, with one exception they were hourly observations?

TOMLINS: Yes, they were.

DRIVER: The exception being on or around 1 in the morning of 27 September?

TOMLINS: Yes.

DRIVER: If we go to the very bottom of the page to see your initials. So having seen those forms, having refreshed your memory from the nursing notes, are you able to say whether or not you were caring for [Baby H] at 1 am or thereabouts?

TOMLINS: Yes, I believe so, yes.

DRIVER: Thank you.

MR DRIVER: Does your Lordship have any --

TOMLINS: I'm pretty sure I was there.

MR DRIVER: Do you remember the desaturation at 00.55? Do you remember it?

TOMLINS: I think so, but it's really hard to be sure. Like, I think I only recall it after reading what happened and reading my notes. Yeah, it's a little bit vague.

MR DRIVER: Thank you. Does your Lordship have any questions for the witness?

Questions from THE JUDGE

MR JUSTICE GOSS: Just this: you've described a number of events, the first one at 20.30 hours, so the first part of the shift when the ET tube was removed and another tube was then placed. Can you remember that?

TOMLINS: Remember it off the top of my head?

MR JUSTICE GOSS: No, well, refer to the notes. You're not sure about the copious secretions that were found, whether it was in the tube that was removed or it was sucked up, I assume, the new tube that was put in; is that right?

TOMLINS: Yes. I'm pretty -- I think it's probably the new tube, but yeah, I can't remember for definite.

MR JUSTICE GOSS: All right.

TOMLINS: Sorry.

MR JUSTICE GOSS: Would it be normal practice to try and suck up any secretions from an old tube or a tube that's already in place?

TOMLINS: Yes. Yes, unless, like, if you thought it was dislodged in some way then you wouldn't, but yes, we frequently would suction it whilst it was -- you'd always suction them whilst they were still in the body, yes, if that makes sense.

MR JUSTICE GOSS: At 00.55, so later on in the night, that's what according to the note was done, ET suction, and it yielded nil secretions; is that right?

TOMLINS: Yes, that's right. I think we'd listened and we could tell that the tube was still in the lung. That's the first thing that you would check in an emergency. Then secretions could be causing the desats and the next thing you would try is to suction the tube --

MR JUSTICE GOSS: Right.

TOMLINS: -- and that's when we didn't find any secretions.

MR JUSTICE GOSS: But in the first occasion there was no indication that the tube was in the right place, indeed there was no indication --

TOMLINS: No.

MR JUSTICE GOSS: -- that it was working, so there may not have been any attempt? I understand that, thank you.

TOMLINS: Yes.

MR JUSTICE GOSS: So that explains the difference. All right.

TOMLINS: Apologies for any confusion there.

MR JUSTICE GOSS: No, no apology is necessary or appropriate. Thank you.

MR DRIVER: My Lord, as currently scheduled, we don't expect to return to Nurse Tomlins in Australia again.

MR JUSTICE GOSS: Right, thank you very much.

Well, thank you very much for making yourself available again to give evidence in this case. It's not anticipated that you will be required again. If that changes, you will obviously be notified in advance, but otherwise that completes your evidence in this case as far as it is known. As I say again, thank you very much for being available to assist us.

TOMLINS: Thank you.

MR JUSTICE GOSS: Thank you.

MR DRIVER: Next we're going to call Dr Matthew Neame, but would this be a convenient moment for a break?

MR JUSTICE GOSS: Yes, we'll have our 10-minute break.

(In the absence of the jury)

IPad number 9. Issues, please, Mr Murphy.

Thank you very much.

(11.58 am)

(A short break)

(12.08 pm)

(In the presence of the jury)

MR ASTBURY: My Lord, I call Dr Matthew Neame, please.

DR MATTHEW NEAME (affirmed)

Examination-in-chief by MR ASTBURY

MR ASTBURY: Could you introduce your professional position, please?

NEAME: I'm currently a locum consultant general paediatrician at Alder Hey Hospital.

ASTBURY: Thank you. You've been asked to come along today to assist with your treatment of a baby named [Baby H] back in September of 2015. I don't think we caught your name for the record.

NEAME: Dr Matthew Neame.

ASTBURY: You've had an opportunity today to refresh your memory from your witness statement. We also have the benefit of the

notes that you made at the time and we'll go to those to assist you on the screen as and when if that's -- to reassure you. Do you have any recollection of [Baby H]?

NEAME: Yes, I can remember definitely aspects of her and her care and her -- meeting her family as well.

ASTBURY: I'm going to ask you specifically in a moment about a night shift, the 26th into 27 September, but before I do, and for the sake of completeness, could we go to tile 5, please, Mr Murphy?

I don't think we need to go behind it. You may or may not recall, [Baby H] was born at 6.22 that day and I think you were the doctor who admitted her to the NNU about 23 minutes later according to your note.

NEAME: Yes.

ASTBURY: Do you have any recollection of that?

NEAME: Not particularly of her admission but I recall the events later on.

ASTBURY: Let's move ahead then, please, to that night shift and in particular tile 399, please, Mr Murphy. Do you recall being fast bleeped to the neonatal unit on the evening of 26 September?

NEAME: Yes.

ASTBURY: If we scroll back, in fact, to tile 395. If it assists we have the bleep data and we can see there again, without going behind it, that bleep was at 20.51 that evening.

Your note appears behind tile 399, please. This is to give you the opportunity to refresh your memory from your note and then I'll ask you some questions, if I may. I apologise, it appears that there's been some ink leaked on to the page. But if we scroll up I'm sure hopefully you recognise your own handwriting amongst the odd dot or two.

It's a note made at 9.15 pm, confirming that you were fast bleeped to the NNU due to what's described as a desaturation and bradycardia. That of course is in relation to [Baby H].

I'm going to asking you to go through your note, but from time to time I might ask you to pause and see what you can remember of events as well. I appreciate the two distinctions.

The note, your note, next indicates:

"ETT removed by nursing staff and being..."

Is that "bagged"?

NEAME: Yes.

ASTBURY: With -- could you read the next line?

NEAME: "With heart rate around 170 and SPO2 [oxygen saturation] 100%, on Neopuff."

ASTBURY: Is that what you would have found when you arrived or what you were told when you arrived?

NEAME: Those would have been my observations on arrival, particularly the heart rate and the oxygen levels.

ASTBURY: Okay. Do you remember the occasion when you were called to the nursery on that occasion?

NEAME: I remember aspects of it. I remember that it was early in the shift and I remember the sense of arriving there and seeing that situation.

ASTBURY: Do you remember, for example, where [Baby H] was and in which nursery room?

NEAME: I remember it being in -- I think it's nursery 1, the main room. I think she was directly ahead of me as I came into the room.

ASTBURY: Okay. Perhaps we don't need to go to it, but we have seen the plan, that there's a doorway to the right of the room, are you saying that's the doorway that you went through and [Baby H] was positioned ahead of you?

NEAME: That's my recollection.

ASTBURY: All right. Do you remember who was there when you went in to the nursery?

NEAME: I think it was Lucy Letby but...

ASTBURY: Okay. "I think, but"; could you elaborate on that for us?

NEAME: So there were a number of occasions over that period where I was called to the unit in similar circumstances and I think on this occasion --

ASTBURY: Okay. You remember where [Baby H] was, you think on this occasion you spoke to Lucy Letby?

NEAME: I think so.

ASTBURY: Any nurses present on that first occasion that you recall?

NEAME: Not that I recall.

ASTBURY: And what were you told when you arrived; can you recall that?

NEAME: I can't remember what I was told, no.

ASTBURY: All right. What was happening when you arrived, what could you see going on?

NEAME: I remember the -- I knew about [Baby H] from our handover and I knew that she had been managed with a breathing tube and I remember the breathing tube was not -- was on the cot beside [Baby H] and that she was having the alternative breathing support from a (overspeaking) breathing.

ASTBURY: You noticed that the ETT had been removed by the nursing staff, so you can recall that was to the side and had been placed in the cot or outside the cot?

NEAME: In the cot is my recollection.

ASTBURY: Who was doing what when you arrived?

NEAME: My recollection is that Lucy Letby was doing the -- providing the breathing support when I got there.

ASTBURY: Did you speak with Lucy Letby?

NEAME: I... I would have done but I can't recall much of that conversation at this time.

ASTBURY: Do you recall, for example, who informed you what had gone on and instructed you as to why you'd been bleeped?

NEAME: No, not in detail at this time.

ASTBURY: Okay, not what you were told but can you remember who told you?

NEAME: I... I recall talking to Lucy Letby and I'm -- on this occasion.

ASTBURY: Okay.

NEAME: That's my recollection.

ASTBURY: In those circumstances who would ordinarily be the nurse who brought you up to speed with what was happening?

NEAME: Ordinarily it's the nurse looking after that baby who's able to describe what they've observed and what's happening.

ASTBURY: Okay. Forgive me, I might have asked you this a moment or two ago, but do you remember any other nurses being present at that stage?

NEAME: Not at that time.

ASTBURY: Is that there were but you don't remember who they were or that there wasn't anybody --

NEAME: I don't recall seeing anyone else there at that time.

ASTBURY: All right. Once you had spoken to the nurse, can I ask what the nurse was physically doing when you spoke to them?

NEAME: Um... My memory is of them doing the -- administering the breathing support.

ASTBURY: Okay. So you held up a hand and a thumb?

NEAME: Yes.

ASTBURY: Can you describe to us what that involves?

NEAME: If the breathing tube -- if the automatic breathing tube is not working, it is switched to a manual system which involves putting a mask over the baby's mouth and administering breathing support using that machine.

ASTBURY: So you arrive, you told us about your observations, you tell us that you are informed by the nurse as much information presumably as they can tell you, and did the monitors provide important information as well at that stage?

NEAME: Yes, that's where I would have got the information and made my notes about the heart rate and the breathing and the oxygen levels.

ASTBURY: All right. Your next note concerns the old ETT, which you describe as:

"Blocked with thick yellow/brown secretions."

Is that something you saw or something you were told?

NEAME: That's something I recall seeing.

ASTBURY: Right. Is this the one you have told us was to the side in the cot, had already been removed by the --

NEAME: Yes.

ASTBURY: -- by a nurse?

NEAME: Yes.

ASTBURY: Okay. What did you do next then, please, doctor?

NEAME: So at that point I would have moved to taking over the breathing support and then replacing the blocked breathing tube with a different one.

ASTBURY: Okay. All right. So that's, I think, re-intubation.

NEAME: Yes.

ASTBURY: Okay. Do you recall, for example, how long you maintained the breaths with the handheld device before you moved on to re-intubation?

NEAME: No, I don't recall that.

ASTBURY: Back to your note, please:

"Re-intubated..."

Could you read it to us?

NEAME: So:

"Re-intubated with 3.5 millimetre ETT [endotracheal tube] to 8 centimetres. Initially good air entry and positive capnography, but then less colour change and decreased air entry after around 2 minutes, so tube removed."

ASTBURY: Okay. Pausing there, this is the new tube you've put in, initially good but very soon thereafter it ceased to be effective; is that the position?

NEAME: Yes.

ASTBURY: All right. Carry on with your note, please. Scroll down, sorry.

NEAME: So:

"Tube removed. Yellow secretions noted in tube after removal."

And then:

"Re-intubated again with another 3.5 millimetre ETT after suctioning yellow secretions from below the cords."

Then:

"Positive capnography and equal air entry noted. Tube secured at 8 centimetres at the lips."

ASTBURY: So second tube ineffective, further secretions found in that when that was removed, this is a third tube, really, in that short period of time. The second you've --

NEAME: Yes.

ASTBURY: -- fitted. This one more successful?

NEAME: So yes, this one was successfully inserted and no problems following the insertion of this one at that point.

ASTBURY: Okay. Does your note continues "tube secured"?

NEAME: Yes:

"Tube secured at 8 centimetres at the lips and chest X-ray requested."

Then a plan following therefore a -- to review the chest X-ray, repeat one of the blood tests in an hour and to update [Baby H]'s parents.

ASTBURY: If we can go next, please, to tile 405, Mr Murphy. You mention the chest X-ray. I wonder if you could have a look at what we have behind our tile 405, please.

Can you scroll slightly to the right, Mr Murphy?

I think I must have got the tile wrong. In fact, we'll go to the note. 402, sorry. My handwriting again.

That's taken at 9.37/21.37. We can look at that briefly, please.

So your note at 9.15. Would this be the chest X-ray that would have been taken as a consequence of that?

NEAME: Yes, that's correct.

ASTBURY: Thank you. I think, having received that X-ray, you then undertook what you describe as a top-to-toe review of [Baby H]; is that right?

NEAME: Yes.

ASTBURY: And that took place at 22.10 that evening; do you recall?

NEAME: Yes. I don't recall that examination but I recall that from the notes.

ASTBURY: Perhaps if we can go to your notes then, please, at 411.

I think I'm right this time?

MR JUSTICE GOSS: Sorry, did you see that X-ray?

NEAME: I did, yes.

MR JUSTICE GOSS: You'd seen the X-ray and any observations about it?

NEAME: I think the breathing tube's in too far and I think that was --

MR JUSTICE GOSS: Sorry, I beg your pardon. We put it up and then we left it again. We'll go back to it.

MR ASTBURY: If we can scroll down a little bit, please.

That's timed, I think, at -- yes, there we go. So at 10.10 -- is that 22.10 in the top left?

NEAME: Yes, it is.

ASTBURY: And we've heard that when the X-ray is reviewed, there's a pro forma, a sticker with the details that you fill in. Is that what we can see at the top of the page?

NEAME: Yes.

ASTBURY: And we can see the ET tube position, and that as a result of the X-rays, am I right, it was withdrawn half a centimetre at the lips?

NEAME: Yes, correct.

ASTBURY: Just in the comments box, please, at this point in time, 10.10, you have indicated that chest drains are in an acceptable position?

NEAME: Yes.

ASTBURY: And does that say:

"Re-accumulation of pneumothorax noted"?

NEAME: It says:

"No Re-accumulation of pneumothorax noted."

So the small circle ahead of re-accumulation --

ASTBURY: So that's a zero in effect?

NEAME: Yes.

ASTBURY: Thanks. If we go to that review, which you've detailed underneath. So same time and, as you say, a review.

You've noted [Baby H]'s gestation and current age. We can then see, am I right:

"RDS, pneumothorax, presumed sepsis..."

And is that "resuscitation drugs"?

NEAME: "Resuscitation with drugs", yes.

ASTBURY: So are they the problems that you were aware of that [Baby H] had faced?

NEAME: Yes.

ASTBURY: All right. If we can just go through the rest of your note. These are your findings at 10.10.

NEAME: Yes. The first line, there's a V standing for ventilation and then that following paragraph outlines that [Baby H] was being ventilated using a breathing machine, describes some of the pressure settings, 21/5 and the rate setting as well of 50.

ASTBURY: Sorry to interrupt you. Any observation on the pressure being 21/5?

NEAME: It's a fairly sort of middle, medium kind of setting in terms of respiratory support for a baby of that gestation.

ASTBURY: Is that a respiratory rate of 50?

NEAME: Yes.

ASTBURY: Is that FiO2, is that --

NEAME: It stands for oxygen concentration. I would typically write the amount of oxygen next to that in the notes.

I don't know why I haven't.

ASTBURY: Okay. Next line, please.

NEAME: It says:

"Good flow volume loops."

That's one of the displays we get on the ventilator, which gives us an indication of how well the lungs are being ventilated. I've described the fact that there were two chest drains in acceptable positions, but that -- and described at that point they are not bubbling or swinging, suggesting they are not actively draining air out of the chest at that point.

ASTBURY: So in the right place but no air being drawn out at that particular moment in time?

NEAME: Yes.

ASTBURY: Or needing to be drawn out, is that the conclusion?

NEAME: Yes. So with the X-ray that [Baby H] had, it would appear that the air had been removed and there's no longer --

ASTBURY: Right.

NEAME: They were no longer needed for draining air.

ASTBURY: If we scroll down a little further, please. I don't think we had quite reached the bottom of the page, doctor.

NEAME: So the next line is describing how much fluid [Baby H] has been prescribed, how much -- that's 150ml per kilogram per day of parenteral nutrition. So --

ASTBURY: Thank you. We're familiar with that, thank you.

NEAME: And it describes how much urine she's been passing, which is 5ml per kilo per hour, and describes that she had blood tests checking her kidney function and salt levels, U&Es, that morning.

ASTBURY: Go down again.

NEAME: It also describes -- the next line describes what medications she's prescribed, so some morphine and some antibiotics.

ASTBURY: I'll just ask you to pause there, is the morphine related to the ventilation?

NEAME: Ventilation and analgesia, given that she had chest drains.

ASTBURY: Thank you. Antibiotics, the next line.

NEAME: Benzylpenicillin and gentamicin.

ASTBURY: Thank you. CRP we're familiar with, recorded as 2.

NEAME: Yes.

ASTBURY: You've indicated there's a long line fitted to -- is that the right arm?

NEAME: Yes.

ASTBURY: And then, sorry, I can't see what the next --

NEAME: The next line is:

"On examination: settled, some active movements, equal chest wall movements, equal air entry, and a heart rate of 138, capillary refill time of less than 2 seconds. Normal sounding heart and an abdomen that's soft and non-tender."

ASTBURY: Is that "impression"?

NEAME: Yes, "Impression: stable". Then the plan to repeat the capillary blood gas, urea and electrolytes, and to clamp [Baby H]'s chest drains in the morning if she remains well.

ASTBURY: So all those figures, that data that you've given us, led you to the conclusion that [Baby H], certainly at 10.10 that evening, was in a stable condition?

NEAME: Yes.

ASTBURY: All right. In fact your next note here is behind tile 419, just for completeness if we can go to that, please.

You have made an entry, I think, on a blood gas chart. If we can go to that. If we scroll down to 20.22 on the 26th. There it is, three lines up.

If we read across, they are your initials in the right-most column, doctor?

NEAME: Yes.

ASTBURY: Do you have any recollection of making that entry?

NEAME: No.

ASTBURY: If you just have a quick read of it, is there anything we should note from that -- those particular recordings that you have made?

NEAME: So from a breathing point of view it suggests that [Baby H]'s had at least as much, a little bit more breathing support than she needs, which references to the 7.4, which is the acidity level in the blood or alkalinity in the blood. The next line is the carbon dioxide level. Then essentially, that gets translated into -- thank you -- the type and then the pressure box with the arrow down, then 19/5 just indicates that I've reduced her level of breathing support slightly at that point.

ASTBURY: So your examination at 10.10, you concluded she was stable. Is there anything in those entries which causes you to elaborate on that? That's, what, 12 minutes after your review.

NEAME: Yes. I think that gas is in keeping with that assessment in that it suggests that, as I say, the level of breathing support [Baby H] was having was slightly more than she needed at that time.

ASTBURY: Is that why you've reduced --

NEAME: The level of support, the pressure, yes.

ASTBURY: Did you see [Baby H] again shortly after that blood gas entry on that shift?

NEAME: I don't recall seeing her again until the next entries in my notes, but I may have been on the unit, I may have seen her less formally.

ASTBURY: Your next entry is at 1.30 in the morning. That's the next occasion you recall?

NEAME: Yes.

ASTBURY: Perhaps if we could go to that, Mr Murphy. Hopefully behind 440. It doesn't look like it. Your note is spread across two tiles, unfortunately, doctor, so I think we're going to have to go back to 412.

So we can see there the note you made earlier. If we can scroll down to the next entry, Mr Murphy.

Your handwriting again, doctor?

NEAME: Yes.

ASTBURY: Your note begins:

"Called to attend baby as desaturation, bradycardia, not responding to bagging/suction."

Is that correct?

NEAME: Yes.

ASTBURY: I know you told us you're struggling to remember.

Can you remember anything about this second time that you were called to [Baby H]?

NEAME: Yes, I can remember aspects of it, yes.

ASTBURY: Okay. Perhaps I can ask you the same questions. Do you remember where [Baby H] was when you arrived?

NEAME: I think in the same space, directly ahead as I went into the unit.

ASTBURY: Do you remember which nurses were present when you arrived?

NEAME: I think again it was Lucy Letby.

ASTBURY: Do you remember anyone else being present in the room at that point?

NEAME: No, I can't say for certain who else was there.

ASTBURY: Do you remember who you spoke to on that occasion when first you arrived?

NEAME: Again, I think I spoke to Lucy Letby.

ASTBURY: Okay. Again, is this the process you were talking about of gaining the information as to what's happened and the situation that you were faced with?

NEAME: Yes.

ASTBURY: And do you recall what you were told on that occasion?

NEAME: No, I don't recall directly what I was told at that time.

ASTBURY: Do you remember anything about [Baby H] as you looked at her in the cot when you first arrived?

NEAME: I remember a sense of being more concerned on this occasion because it wasn't completely clear why she had deteriorated. There wasn't as clear an explanation.

ASTBURY: Okay. Last time you told us about the tube being blocked.

NEAME: Yes.

ASTBURY: Was that checked?

NEAME: From my notes it was checked in terms of assessing whether we could detect air moving into [Baby H]'s lungs and I recall being concerned because of the previous finding of sticky secretions in her airways, being concerned that that had been checked and appropriately managed.

ASTBURY: Because your first line indicates there's no response on this occasion to bagging or suction.

NEAME: Suctioning, yes.

ASTBURY: Could you take us through the rest of your note, please?

NEAME: It describes being:

"Called back to the unit to attend [Baby H] due to low oxygen level and a low heart rate, neither of which were responding to manual ventilation or suctioning through the breathing tube."

I report being told that the low oxygen levels had been noted first, followed by the low heart rate. I report being told in the notes that [Baby H] had remained alert with no abnormal movements noted during that desaturation event, the low oxygen event.

ASTBURY: Then I think you've noted what you found yourself on your arrival.

NEAME: Yes. So oxygen levels of around 60%, a heart rate of around 60, but with some movement of [Baby H]'s chest wall and some air noted going into her lungs.

ASTBURY: So movement of the chest, air going in and out of the lungs as it should?

NEAME: Yes.

ASTBURY: But nevertheless we can see the drop in saturation and the drop in heart rate?

NEAME: Yes.

ASTBURY: You've made a note that she was alert with her eyes open. Is there a reason why that might be important?

Is that something that stood out to you at the time or is that you simply recounting what you saw?

NEAME: I think that's just me recounting what I saw.

ASTBURY: All right. Scroll up again, please. I should have said down.

We can see, before we leave that note, that it's at that point the entry says:

"Dr Saladi called in from home."

NEAME: Yes.

ASTBURY: So whose decision was that?

NEAME: I think that would have been my decision.

ASTBURY: And why?

NEAME: I think the concern was that previously the problem with [Baby H] seemed to relate very much to the obstruction of the breathing tube and on this occasion it's not clear that that's the cause and so without that more definitely reversible cause and with a low heart rate, which is also different to the previous occasion, those things would have made me more concerned and I would have wanted extra help at that point.

ASTBURY: Okay. Was there a distinction you felt between the earlier incident at around 8.50 when you were bleeped and this particular incident?

NEAME: The distinction is the lack of a clear explanation for the event at this time and also the fact that this has happened again within a short, relatively short, space of time. Both of those things would have made me more concerned about [Baby H]'s condition.

ASTBURY: Thank you. And you told us about the examination that you'd conducted at 10.10 and thereafter?

NEAME: Yes, when she seemed perfectly stable.

ASTBURY: Thank you. If we could go to the rest of your note, please. This is the continuation of your note. If you could again take us through it, please.

NEAME: The first line describes that I removed the breathing tube due to my concerns regarding the previous issues with [Baby H]'s tube having been blocked.

It then describes that, even with removing the tube and providing manual breathing support using the mask and some increased breathing pressure, [Baby H]'s condition still didn't improve at that point.

ASTBURY: If we can pause there. So the ventilation's been disconnected?

NEAME: Yes.

ASTBURY: And the handheld breathing device is now in use?

NEAME: Yes.

ASTBURY: That's not doing the trick?

NEAME: Yes.

ASTBURY: And you mentioned the pressure earlier, I think, of 21/5.

NEAME: And then reduced again.

ASTBURY: This marks an increase in that pressure?

NEAME: Yes.

ASTBURY: And that's the pressure with which oxygen is or gas is being forced into the baby's lungs by way of ventilation.

NEAME: Yes.

ASTBURY: Right. The reference to chest wall movement, is that still ongoing despite these efforts?

NEAME: So that's, I think, significant because it suggests that even though -- with those pressures clinically there's evidence that the breathing support is effective. So the sign that we look for when we're using that breathing support is movement of the chest wall, which suggests that the pressure is making its way down to the lungs where you want it.

ASTBURY: Okay. And obviously the up and down movement shows that the lungs are inflating --

NEAME: Yes.

ASTBURY: -- and deflating as they should?

NEAME: Yes.

ASTBURY: Okay. Point number 3, please?

NEAME: That's cold light negative, so that's a bedside test that we can use to try and detect air leaking around the lungs.

ASTBURY: We've seen and heard some evidence about that. Does that indicate that that was negative?

NEAME: Yes. So there's no evidence, using that test, of a re-accumulation of the air around the lungs.

ASTBURY: Number 4 suggests that [Baby H] was re-intubated again?

NEAME: Again, yes.

ASTBURY: Could you take us through that, please?

NEAME: Again with a 3.5-millimetre ETT tube, inserted to the same position, it describes that the vocal cords were visualised easily and the tube passed through those cords and that the capnography test was positive and that the -- there was air heard going into both of [Baby H]'s lungs at that point.

ASTBURY: Okay. So I think the answer may be number 5, but did that re-intubation solve the problem?

NEAME: No, at that stage [Baby H]'s oxygen level is still low and the heart rate is still also low. So at that point chest compressions were started and adrenaline was requested.

ASTBURY: So you've made a note that the chest compressions began at 01.07.

NEAME: Yes.

ASTBURY: And do you recall positively asking for adrenaline on that occasion?

NEAME: I don't recall the words coming out of my mouth, but I recall the episode and I recall the need for adrenaline.

ASTBURY: Okay. So someone assists you in that regard. What's your role during the course of what we can now see unfolding?

NEAME: At that stage my main role would have still been managing [Baby H]'s airway, so replacing the breathing tube and also helping to coordinate the resuscitation attempt.

ASTBURY: So after the request for adrenaline, I think that says "chest transilluminated" -- is this the cold light again?

NEAME: Yes.

ASTBURY: So this is another effort to check whether there was a problem in the chest?

NEAME: Yes.

ASTBURY: And what does that tell you please?

NEAME: It says "negative transillumination", so it's a second check to make sure that a pneumothorax wasn't the cause of [Baby H]'s presentation.

ASTBURY: If we can scroll down again, please, Mr Murphy. We can see at number 9, is that the first dose of adrenaline at 01.08, shortly after you'd asked for it to be obtained?

NEAME: Yes.

ASTBURY: Point number 10, please. Could you explain that to us?

NEAME: Yes. That's:

"Attempted aspiration of chest drain at 01.12 with yield of around 5ml of air."

So that's another way of really trying to assess whether there's a problem with the re-accumulation of air outside of the lungs and that describes that that was unlikely to be the issue. So even with some extra pressure to suck air through the chest drains, there was no evidence of a big accumulation --

ASTBURY: I was about to ask you whether there was any significance in the figure of 5ml.

NEAME: It's that it's small, it suggests it was unlikely to be the --

ASTBURY: So the cold light on two occasions ruled out re-accumulation of the pneumothorax. 5ml, am I right, doesn't suggest re-accumulation of pneumothorax?

NEAME: Correct.

ASTBURY: Then we've heard before that from time to time during a resuscitation attempt everybody stops and reassesses.

Is that what point 11 assists us with?

NEAME: Yes. So that describes that at that point things are looking better: [Baby H]'s heart rate has recovered to a more normal level for a baby who's unwell and her oxygen level is 100%. That's followed by a decision to stop the chest compressions.

ASTBURY: So heart rate is back where you would expect it to be --

NEAME: Yes.

ASTBURY: -- or you'd hope it to be?

NEAME: Yes.

ASTBURY: Is that "Saturations back to 100%"?

NEAME: Yes.

ASTBURY: And you were able then, the heart rate having picked up, to stop the chest compressions because that support was no longer necessary?

NEAME: Yes.

ASTBURY: And helpfully, you've timed that at 01.13.

You then note that Dr Saladi arrived -- sorry:

"Discussed with Dr Saladi on arrival."

Is that 01.15?

NEAME: Yes, around 01.15.

ASTBURY: And then [Baby H] having been successfully resuscitated you then set a plan, presumably with Dr Saladi?

NEAME: Yes.

ASTBURY: Talk us through that, please.

NEAME: That's another chest X-ray, a repeat blood gas, capillary blood gas, to obtain some additional intravenous access, to repeat [Baby H]'s blood tests, to complete a cranial ultrasound scan, and discuss with the Arrowe Park Hospital consultant.

ASTBURY: Okay. You told us when the incident at 01.30 began to unfold there was -- your note says 1.30, it was before then, it was just before midnight we think -- when that began were you more concerned about what you were seeing this time rather than what you saw on the evening before? Did the events that then unfolded cause you to change your mind about that? Was one more serious than the other?

NEAME: This one was more serious because of the associated drop in the heart rate and the difficulties we had or that there were initially in recovering [Baby H]'s oxygen levels and heart rate. So yes, this is more significant.

ASTBURY: Thank you. All right. Is there anything -- again I appreciate it might be difficult, but in respect of that second incident is there anything you recall that's perhaps not captured in your notes?

NEAME: No, I don't think so.

ASTBURY: Okay. I'm just giving you the opportunity because I appreciate it's a while ago and sometimes notes can jog memories. Okay.

I'm just going to complete the shift, if I may, because you remained on nights whilst [Baby H] remained in the unit, certainly for much of the remaining shift, not for all of it. If we can go next, please, to tile 463.

I don't think we need to go behind it. You ordered bloods; is that right?

NEAME: Yes.

ASTBURY: And a sample would have been collected at 02.54 -- well, perhaps if we do have a look at that, please, Mr Murphy.

Dr Neame, you tell us if there's anything in those results that stands out for you in light of what you've told us. I'm sure all the readings will mean more to you than they do to me, but if you could have a look at those. Is that clear on your screen?

NEAME: Yes, thank you.

ASTBURY: Anything that informs you about what's just happened?

Anything that stands out as you look at them now?

NEAME: So the only result that does stand out a bit is the CRP, the infection marker, being more raised than it was from the previous review. That's gone up to 49. Similarly, the white cell count is slightly elevated.

ASTBURY: Where is that one, please?

NEAME: The WBC just below the CRP.

ASTBURY: Thank you.

NEAME: They're the primary...

ASTBURY: They're the two that obviously stand out to you?

NEAME: Yes.

ASTBURY: Thank you. We've heard that [Baby H] was taken to Arrowe Park, which is a tertiary centre, later in that shift.

If we could just go next, please, Mr Murphy, to 498.

It might be that the front tile is sufficient just for the timeline, please, Mr Murphy. We can go behind it, if necessary, later.

So that suggests that there is a document behind it which you can look at if it doesn't seem right, but at about or at 05.20, you signed a handover completion for the transport team that came to collect [Baby H]. I think, again, we probably don't need to go behind the tile, but if we go to 499, we can see, I hope, that you also generated a discharge letter for [Baby H] presumably to go with her to Arrowe Park.

NEAME: Yes.

ASTBURY: Let's go to the detail of that, please. We can go again to the document, but there's a summary of [Baby H]'s clinical care. I'm going to read it from this because it's a little easier:

"Dear Arrowe Park team. Thank you for accepting this 34/40 baby who has had two significant episodes of bradycardia requiring resuscitation with adrenaline and CPR in the last 24 hours with no clear precipitating factors. [Baby H]'s course has been complicated by the development of RDS and pneumothoraces as outlined above but the acute episodes with desaturations and bradycardias do not seem to be directly related to the respiratory problems."

That's what you wrote in that discharge letter, doctor; is that correct?

NEAME: Yes.

ASTBURY: Thank you. That was the last of your dealings, of course, with [Baby H] on that particular shift?

NEAME: Yes.

MR ASTBURY: Thank you. I have no more questions, but if you could wait there, please.

Cross-examination by MR MYERS

MR MYERS: Dr Neame, I only have some questions about who was present on the times that you attended. Just so we can all follow and to help you, I'm not taking issue with you saying that Lucy Letby was present by your recollection. There's just a little bit of extra detail I'd like you to help with. Is that okay?

NEAME: Yes.

MYERS: Thank you. You have described two occasions when you went to the neonatal unit, haven't you?

NEAME: Yes.

MYERS: On both occasions you have a recollection of Ms Letby being involved in what was being done as a response to what had happened, don't you?

NEAME: Yes.

MYERS: Do you recall the presence of any other nurse or nurses on either of those occasions?

NEAME: On the second occasion I recall that during the resuscitation there were more nurses present.

MYERS: Do you recall any nurse or nurses present on the first occasion?

NEAME: I don't recall that.

MYERS: Do you accept there may have been another nurse or nurses present and you can't remember or are you saying there definitely weren't any other nurses around?

NEAME: That's a possibility, but I don't recall it.

MYERS: A possibility there may be another nurse or nurses?

NEAME: Yes.

MYERS: All right, thank you. On the second occasion you say you do recall clearly at least another nurse or nurses; is that right?

NEAME: During the course of the events, yes.

MYERS: Right, during the course of the events. Of course, though it may be quite obvious to all of us, just to reiterate you're arriving on the scene as part of the reaction to whatever has happened?

NEAME: Yes.

MYERS: I just want to clarify one matter relating with recollection. Do you recall making a couple of statements to the police about this period?

NEAME: Yes.

MYERS: Just for the record, one of them was on 8 August 2018 and you made a later statement on 11 July 2019, didn't you?

NEAME: Yes.

MYERS: I just want to clarify something and it might help if you're shown a page that comes from your second statement. I'm going to tell Mr Murphy the page. It's statements page I2213. It's for Dr Neame to see and his Lordship and the barristers.

I'm going to scroll down and this is from the second statement, Dr Neame, the one in July 2019. I'm just going to read to you. Can you see where it says "I remember" about halfway down that page?

NEAME: Yes.

MYERS: You say this about the second incident at this point:

"I remember more about the second episode as the resuscitation was much more prolonged and Dr Saladi was called in. The second time there were more people involved in the resuscitation and resus drugs were needed. I think it was the second time that Lucy and another nurse were there when I arrived. I think the other nurse is called Ailsa. I don't know her surname. She's more of a senior nurse now. At the time I knew most of the nurses by name. There would have also been other nurses in the room at the time. I can't remember who now. I can't remember any details of what I was told on arrival or by whom other than that [Baby H] had desaturated."

Can you see that?

NEAME: Yes.

MYERS: You'd said that you knew the other nurses by name who worked there; is that right?

NEAME: Yes.

MYERS: So did you know Nurse Ailsa Simpson by name?

NEAME: Um... Yes, I know her. Knew her by her first name.

MYERS: And did you know who Ailsa was?

NEAME: Yes.

MYERS: Right. Now, as a matter of record, we know that Ms Simpson was not on duty that night. But is it the fact that in your mind you have a recollection that she was?

NEAME: Um... As I said at that time, I think I must have thought that she was on that shift --

MYERS: All right.

NEAME: -- at that time.

MYERS: Okay. Now, we can take that down, please, Mr Murphy, thank you.

One name that you don't mention in either of the statements is Shelley Tomlins. Do you know who Nurse Tomlins was, who Shelley was?

NEAME: Yes.

MYERS: Do you not recall her at all on these occasions?

NEAME: I... I can't specifically recall that she was helping on these occasions.

MYERS: Is that just that you have no recollection of her at all?

NEAME: I remember her working on the unit and being involved in care, but I don't remember specifically what her role was on these occasions.

MYERS: And is it right that you don't have any recollection of her involvement on these occasions?

NEAME: That's correct, yes.

MYERS: Do you recall at any point whether -- just to be quite particularly this -- she, Shelley Tomlins, did or could have given you a history about what had just happened with [Baby H] on either of these two occasions?

NEAME: That's possible, yes.

MYERS: I want to be quite clear so you can answer this. You've said you recall maybe on the first occasion Ms Letby telling you something about what had happened. You've given that evidence, haven't you?

NEAME: Yes.

MYERS: Is it possible that in fact it's Shelley Tomlins who told you what had happened rather than Lucy Letby?

NEAME: I think that's possible. I think I've tried to explain in my statement and here that those are my recollections.

MYERS: All right. But it's difficult to remember exactly --

NEAME: Yes.

MYERS: -- who is doing what when you're going back over a period of years?

NEAME: Yes.

MR MYERS: Well, thank you, Dr Neame. There's nothing else I want to ask.

Re-examination by MR ASTBURY

MR ASTBURY: Just arising from the statement you were shown, Dr Neame, perhaps you could just be directed to the foot of 2212, please. The last two lines, please. You thought -- you weren't sure, but you thought -- speaking of the first occasion:

"On arrival I saw a nurse, Lucy Letby, doing manual ventilation on [Baby H] with the mask."

Is that your recollection?

NEAME: These are my recollections, yes.

ASTBURY: You go on to say this, and I just want to ask you why, just on to the next page, three lines down:

"I presumed Lucy was the nurse who had been looking after [Baby H]."

Any reason you reached that presumption?

NEAME: Just because that would be the usual process that the person you're most likely to be called by is the person looking after the baby for that shift. That's the reason for that presumption.

ASTBURY: The person you're most likely to be called by is the person responsible for the baby on that shift?

NEAME: Well, they're most likely to be spending time with the baby, so...

ASTBURY: Okay. So what was it then that you learned that caused you to think that that was the case? Were you told, for example, that was the case?

NEAME: I... Well, I don't recall that. You wouldn't necessarily be told who was responsible for a baby in a situation like that.

ASTBURY: Were you told who called you?

NEAME: No, I wouldn't be told that typically.

ASTBURY: All right. It's just the impression that you got?

NEAME: Yes.

MR ASTBURY: All right. I have no more questions. Does my Lord have any questions?

MR JUSTICE GOSS: I don't.

Thank you very much, Dr Neame. That completes your evidence.

MR ASTBURY: Yes. We expect Dr Neame back.

MR JUSTICE GOSS: You will be coming back again to give evidence. You are aware of that?

NEAME: Yes.

MR JUSTICE GOSS: So please don't talk to anyone about anything to do with this case, any of the evidence about it, any of the babies at all.

NEAME: Yes.

MR JUSTICE GOSS: Thank you very much.

That's obviously a convenient moment.

(The witness withdrew)

2.05 then, please, members of the jury. The hour.

Thank you very much. Remember your responsibilities as jurors: no communications, no research.

(In the absence of the jury)

MR JUSTICE GOSS: I know that the question has been raised that when we complete the evidence relating to a baby, insofar as it's possible to complete it in relation to that baby at this stage, whether we would move on to the next baby on the same day. I think that by the end of today we'll know fairly well where we're going to be so far as tomorrow is concerned. If it means that we are finishing early-ish tomorrow, that's not a problem because I appreciate the logistics of the fact that -- but if it's going to be a very early finish, in other words before midday...

MR ASTBURY: We don't think so.

MR JUSTICE GOSS: Right. Well, in those circumstances we won't go beyond the evidence relating to [Baby H] that can be called at this stage tomorrow.

(1.04 pm)

(The short adjournment)

(2.05 pm)

(In the presence of the jury)

MR DRIVER: May I recall Dr Saladi.

DR SATYANARAYANA SALADI (recalled)

Examination-in-chief by MR DRIVER

MR DRIVER: Could you restate your full name for the benefit of the record, please?

SALADI: Satyanarayana Murthy Saladi.

DRIVER: Dr Saladi, I'd like to ask you some questions about the events in the early hours of the morning of 27 September 2015. Mr Murphy, could you kindly put up tile 458 on the screen? There, Dr Saladi, you'll see your name on the tile timed at 02.40 hours. If we click behind it, I hope we'll see your handwritten clinical notes.

Before we look at the detail of your notes, do you recall the events of 2.40 am on 27 September?

SALADI: Only from the notes.

DRIVER: Only from the notes, thank you. Might I ask you to address your answers to the jury so they can better hear your evidence?

Only from the notes. Well, let's look at those notes then. The notes were written at 02.40, is that right --

SALADI: Yes.

DRIVER: -- after the examination of the baby that you had conducted?

SALADI: Yes.

DRIVER: And were you called out, as it were, as the on-call consultant at the request of your junior colleague, Dr Neame?

SALADI: That's correct.

DRIVER: If we look at your note, you came to the NNU because [Baby H] was unwell?

SALADI: That is correct.

DRIVER: By the time you arrived, the baby was being bagged, the Neopuff device was being used via a new, that is to say, replacement, ET tube?

SALADI: That is correct.

DRIVER: Is that correct? Thank you. Please then assist us as to the remainder of this note. What follows here, are they the readings and measurements that you undertook or that were undertaken in your presence?

SALADI: That is correct.

DRIVER: And how was [Baby H] when you arrived and saw her?

SALADI: According to my notes, the heart rate seems to be in acceptable range and I commented that the air entry is good as well, so that means air is going into the lungs, both lungs. And a capillary refill, that is a perfusion, how the heart is working, and that is 2 seconds, which is within the acceptable range again.

DRIVER: So at that stage she seemed --

SALADI: She seemed fine.

DRIVER: She seemed fine to you.

SALADI: Yes.

DRIVER: Thank you. The next entry, is this a history that had been provided to you?

SALADI: That's correct, yes.

DRIVER: What was, in terms, that history?

SALADI: I've written there that endotracheal tube, the tube which goes into the windpipe, was blocked earlier in the night and it was changed, not by me, by my colleagues, uneventfully and the tube position adjusted and the baby was stable for 2 hours after that.

DRIVER: So we know from Dr Neame that there was a replacement of an ET tube. Does it follow from what you've just read out to us

that the history as given to you suggested that this had managed to achieve some degree of stability --

SALADI: That is correct.

DRIVER: -- with the baby's health? Thank you.

Mr Murphy, if you could allow us to read the rest of the page, please.

SALADI: Then around 1 am, baby developed desaturations. That's a situation where the oxygen levels in the blood are going down as measured with the probe. No intervention being done at that time. Again, that's probably the story I was given.

DRIVER: Yes.

SALADI: Initially, heart rate was normal and then heart rate decreased to 40s, which is very low, from 150, which was subsequently found. When I was examining baby, it went down 40s. So whenever the heart rate goes below 60, to maintain the essential organ perfusion, we sort of must -- from outside provide cardiac compression. So baby was given that for 5 minutes. And if it goes on for a certain length of time then we also give an adrenaline injection.

So during that process of resuscitation, this is before I came in, the baby received external cardiac massage, one dose of adrenaline and one saline bolus.

DRIVER: Pausing there for a moment, so all of that that you've just shared with us was a report provided to you by Dr Neame?

SALADI: I suspect so, yes.

DRIVER: Yes. And the note that reads, "No intervention being done at that time", should we read that as the time that the baby developed desaturations?

SALADI: That is correct and my understanding.

DRIVER: Yes, thank you. So the cardiac compressions that had been conducted for some 5 minutes or so, had all of that taken place prior to your arrival?

SALADI: That is correct, yes.

DRIVER: Thank you. So you were here, were you, to examine and assess the baby post, ie after, this crisis?

SALADI: Yes, because by the time I come from home -- it usually takes 10-15 minutes, so by the time I reached hospital all this is already done.

DRIVER: I understand, thank you. Did you then examine and measure some vital signs --

SALADI: Yes.

DRIVER: -- with the patient? What is it that you saw in her at that point?

SALADI: So I've also commented that heart rate improved after adrenaline bolus before I came.

DRIVER: Yes, thank you for that.

SALADI: Then I mentioned settings, the ventilatory support baby is receiving, which are not excessive, so that is a sort of settings -- so baby is needing respiratory support but not a horrendous amount of support.

DRIVER: So not an exceptional --

SALADI: That's correct.

DRIVER: -- degree of ventilatory support; is that right?

SALADI: Yes.

DRIVER: The next entry appears to allude to the ET tube.

SALADI: "Position confirmed and withdrawn by 0.5 centimetres."

DRIVER: Why was that done?

SALADI: So we -- just to make sure that it is in the right position. It can be -- there is a certain position on the X-ray we want it to be.

DRIVER: So you moved it so its optimal position?

SALADI: Optimal position, yes.

DRIVER: Thank you.

SALADI: "No re-accumulation of pneumothorax, chest drain position unchanged."

DRIVER: Thank you. How did you establish that there had not been a re-accumulation of the pneumothorax?

SALADI: Two things: probably did a cold light or I could have seen on the chest X-ray as well --

DRIVER: Thank you. So that --

SALADI: -- and the fact that I commented about chest drain position suggests it's probably from the chest X-ray.

DRIVER: From the chest X-ray.

SALADI: Yes.

DRIVER: And did you consider and investigate whether there had been a re-accumulation of the pneumothorax in an attempt to identify a potential cause for the desaturation (inaudible: coughing) is that the purpose of that?

SALADI: Yes.

DRIVER: Thank you. Then could you help us with the remainder of these observations, please?

SALADI: I would have done a scan of the head as well to see why the baby has sort of suddenly desaturated, suddenly became unwell. I commented the ultrasound scan of the brain is normal. That's the top line.

DRIVER: As for potential causes of the desaturation, you have ruled out re-accumulation of the pneumothorax, you have ruled out now any neurological potential causes?

SALADI: Yes.

DRIVER: What else did you look for?

SALADI: So normally, when a preterm baby suddenly -- who are on breathing support suddenly deteriorate, there is an algorithm which we follow, which is called DOPE, displacement, obstruction, pneumothorax and emphysema, other problems we can easily identify and they have got specific management, and we were looking for those and identifying any of those.

DRIVER: Is that effectively a clinical checklist of potential causes of desaturation in a neonate?

SALADI: Yes, yes.

DRIVER: But there's nothing to tick on the checklist?

SALADI: That is correct.

DRIVER: Okay.

SALADI: I've commented about heart rate, respiratory rate, saturations, capillary refill. Again, they all seem to be within acceptable limit. And then I have written a blood gas result, which suggests there is some amount of respiratory acidosis with some build-up of the acid, but that might be just a reflection of baby receiving resuscitation.

DRIVER: So were they abnormal readings?

SALADI: Outside the normal, yes.

DRIVER: Were they exceptional readings?

SALADI: Um... It is a reading where we will need to think about -- it's not something we can leave, okay? At least we need to monitor.

DRIVER: Right. But you said, I think, a moment ago that that may have been a consequence of the resuscitation procedure?

SALADI: Possibly, yes.

DRIVER: Next --

SALADI: "As no explanation for these profound desaturations and bradycardias needing external compression..."

Sorry, the line before was:

"Discussed with Dr Rath, consultant at Arrowe Park Hospital."

DRIVER: Yes.

SALADI: "As no explanation for these profound desaturations and bradys [which stands for low heart rate] needing external compression, agreed to accept the baby to Arrowe Park Hospital."

DRIVER: So was that Dr Rath (overspeaking) --

SALADI: He's the consultant neonatologist.

DRIVER: So having had circumstances explained to him, at this point Arrowe Park explained --

SALADI: I'm not sure him or her, but yes.

DRIVER: I'm grateful. But in any event Arrowe Park agreed to accept the baby --

SALADI: Yes.

DRIVER: -- at this point? The parents were updated of the situation, the note suggests, and the transportation team --

SALADI: Informed by Dr Neame. Then --

DRIVER: Last entry?

SALADI: "Peripheral cannula placed..."

That means an IV line placed:

"... and bloods were taken..."

Looking for infection markers, looking for haemoglobin, looking for bugs. And then:

"To start second line antibiotics."

DRIVER: Right. Was that on the basis of a diagnosis or was that a precautionary measure?

SALADI: It is a precautionary measure.

DRIVER: Thank you. Did that conclude your direct involvement with the baby [Baby H]?

SALADI: Unless I have written something else.

DRIVER: I believe not.

SALADI: I don't think so. Probably that is...

MR DRIVER: I think this is your only entry on the clinical notes for this baby, Dr Saladi. Could you remain there, please, and answer any questions?

MR MYERS: We have no questions, my Lord, thank you.

MR DRIVER: Does your Lordship have any questions for Dr Saladi?

MR JUSTICE GOSS: I don't, thank you very much. According to the list, you're not required again, I don't think.

MR DRIVER: I believe not.

MR JUSTICE GOSS: I'm just checking. You're not aware that you're going to be required again, doctor?

SALADI: No.

MR JUSTICE GOSS: There is a possibility, but I'd hope it's a very remote possibility, that you'd have to give evidence again. So just in case, would you please not talk to anyone in any event about anything to do with this case, particularly about any of the babies involved or anyone or anything involved with this case?

Thank you very much for coming and giving your evidence.

Thank you.

(The witness withdrew)

Witness statement of DR SANJEEV RATH (read)

MR DRIVER: My Lord, may I at this point read a statement of Dr Rath, who was referred to in Dr Saladi's notes that we've just concentrated on. This statement is at page 25 of the reading bundle provided to the court last week.

Members of the jury, it's a statement dated 22 January 2020 by a Dr Sanjeev Rath, a consultant neonatologist at Arrowe Park Hospital. He says:

"This information I provide for this statement is from my recollection, a review of the patient electronic record, paper notes, the transport documentation, and from the Cheshire and Merseyside Neonatal Network Acceptance Report.

"The baby I refer to in this statement is [Baby H]."

And he gives [Baby H]'s date of birth:

"On 26 September 2015 the registrar at the Countess of Chester Hospital contacted us at Arrowe Park because we are the lead centre for level 3 neonatal care for babies for their geographical location.

"They mentioned they had been ventilating a baby for 48 hours and they wanted to discuss the baby as per the network guidance (any baby who has received ventilation for 48 hours in a level 2 neonatal unit should be discussed with a level 3 centre).

"The registrar from the Chester neonatal unit contacted myself asking for advice on the management of the baby. I was given the information that the newborn baby, [Baby H], has had cardiac arrest, had developed pneumothoraces, and had been managed by the local hospital. The registrar informed me that the baby had received prolonged resuscitation, was being ventilated, has two

chest drains for draining the pneumothoraces, ventilatory requirements were very minimal, and the baby's clinical condition was getting better.

"During this telephone call I was informed the baby was haemodynamically stable, blood pressure was stable, gases were good, and only one chest drain was functional, and there was no accumulation of the pneumothoraces on the X-ray."

MR JUSTICE GOSS: Haemodynamically?

MR DRIVER: To do with the function of the heart and indeed blood pressure. Heart rate and blood pressure.

MR JUSTICE GOSS: Thank you very much. Heart and blood.

MR DRIVER: I'm glad I Googled that this morning!

MR JUSTICE GOSS: I didn't know whether it's in our glossary that we have, but we haven't been referred to it in a long time and whilst it was there...

MR DRIVER: "We discussed over the phone to tease out the causes of the cardiac arrest that this baby had suffered and we discussed the main causes of cardiac arrest. Could it be due to a blocked endotracheal tube, chest drain related mechanical position (drain end too far in and irritating the heart muscle)? If there was an accumulation of air which could have caused this baby to have cardiac arrest as it is not usual for a baby to have multiple cardiac arrests.

"We discussed the above causes and the registrar stated they had looked at these causes and they were not able to ascertain a reason for the arrests.

"Following this discussion, I advised the local team to get an electrocardiogram (ECG). I also advised the local team to clamp the old chest drain which had been there for more than 2 days and had been non-functional, to do a repeat chest X-ray after clamping and look for any re-accumulation of air and, if none, was identified, to remove the chest drain. To continue to wean off the ventilation and plan for extubation provided baby was stable and the gases were good.

"I also asked the registrar to discuss my advice with the on-call consultant, liaise with myself if there were any changes in the clinical condition of the baby and for further clarity in terms of management was needed."

That doesn't quite make sense but that's what it reads:

"At that point in time the baby was stable, on minimal ventilation, was clearly getting better, and the local team who had managed the baby for the 48 hours were confident to continue looking after the baby. I did not feel that transferring the baby to a level 3 unit to de-escalate intensive management would be the right decision in the baby's or family's interest. It would make more sense for the local team to continue managing the baby with an attempt to wean and extubate locally in the next 24 hours with guidance and support from us and to contact us if they encountered any difficulties.

"Unexpectedly, I got a call from the on-call paediatric consultant at Chester in the early morning hours of 27 September 2015..."

It's Dr Saladi's note that we've just looked at, members of the jury:

"... saying that the baby had suffered another unexplained cardiac arrest while being on the ventilator. Following that, I decided to mobilise the baby to the nearest level 3 neonatal unit, which was Arrowe Park Hospital, and asked the consultant to contact the transport team for an uplift and transfer.

"This was my service week in the neonatal unit at Arrowe Park Hospital. I was subsequently involved in the care of this baby in the neonatal unit over the next 2 days until discharge back to Chester. She arrived on 27 September 2015 and by 29 September 2015 she was extubated and clearly ready to be transferred back to Chester.

"In the unit the baby's management was quickly de-intensified. Chest drains were removed. Ventilation was weaned and she was extubated. She remained well and did not have any further cardiac arrest with us. From a sepsis point of view we did a lumbar puncture and continued antibiotics with a plan to give a seven-day course of antibiotics, which was communicated to the team at Chester.

"We carried out an echocardiogram, which showed a structurally normal heart with mildly raised pulmonary pressure (normal for this age in babies). An ECG was planned but did not happen due to difficulty in sticking the ECG lead patches on the chest due to the chest being covered with chest drains and Tegaderms. Baby had jaundice and required phototherapy. The long line for infusing glucose and TPN was reinserted at Arrowe Park as the original long line inserted in Chester had stopped functioning. Morphine was stopped prior to extubation and antibiotics were continued. Feeds were started on 29th once the baby was clinically stable.

"The notes show that [Baby H] arrived at Arrowe Park at 06.50 hours on 27 September. However, it may have been a little earlier as the note may have been written retrospectively."

That's the relevant part of Dr Rath's statement, my Lord.

Next, nurse Christopher Booth, who has special measures in the form of screens.

MR JUSTICE GOSS: Yes, so we'll just have to empty the court for a couple of minutes, just so that the next witness can be emplaced in the witness box. Thank you.

(In the absence of the jury)

MR JUSTICE GOSS: Anyone who's not a lawyer will have to leave the courtroom just for a few minutes.

(Pause)

(In the presence of the jury)

MR CHRISTOPHER BOOTH (recalled)

Examination-in-chief by MR ASTBURY

MR ASTBURY: Mr Booth, could you state your name for the record, please?

BOOTH: Yes, it's Christopher Neil Booth.

ASTBURY: Thank you. We know that you were a neonatal nurse employed at the Countess of Chester during September or certainly through the summer of 2015.

BOOTH: Yes.

ASTBURY: You have come along today to help us with your contact with a baby by the name of [Baby H] --

BOOTH: Yes.

ASTBURY: -- and, in particular, your night shift of 26 September into the morning of 27 September.

BOOTH: Yes.

ASTBURY: Do you have any independent recollection of that shift or have you relied on notes for the purpose of your statement?

BOOTH: I have relied on notes, I'm afraid.

ASTBURY: No, no apology necessary, thank you. Perhaps if we start at tile 385, Mr Murphy. If we can go into that, please, we have a diagram of the staff on duty and the layout that evening.

If we can begin with -- we can see Dr Gibbs was the paediatrician of the week.

BOOTH: Yes.

ASTBURY: We also know that Dr Saladi was the on-call consultant for that night shift. The registrar was Matthew Neame and the SHO on nights was a doctor named Jessica Scott.

You were shift leader?

BOOTH: I was, yes.

ASTBURY: Thank you. The nurses on duty with you were Shelley Tomlins, who was, as it happens, the designated nurse for [Baby H], Lucy Letby, [Nurse B] and a nursery nurse by the name of Elizabeth Marshall?

BOOTH: Yes.

ASTBURY: If we scroll up we can see the various responsibilities of you and your colleagues that night. We can see one occupant in nursery 1, that being [Baby H], and her allocated nurse was Shelley Tomlins. I should say designated, sorry, not allocated.

In nursery 2, going down to the bottom right, we heard about [Baby G]. I think you were designated [Baby G] in addition to your supervisory role?

BOOTH: Okay.

ASTBURY: Also two babies, NC and EM, situated in nursery 2, designated to Lucy Letby?

BOOTH: Right, okay.

ASTBURY: We can see then in nursery 3, going in a clockwise direction, Elizabeth Marshall designated four babies in nursery 3, including [Baby I], who the jury will hear about shortly.

In nursery 4, another four babies, whose initials are set out, for whom [Nurse B] was caring.

Now, I think it's right that in the early hours of that morning a baby with the initials -- and we'd rather you didn't say the name, thank you -- LO was admitted.

BOOTH: Yes.

ASTBURY: A ventilated baby who went straight into nursery 1?

BOOTH: Yes.

ASTBURY: I think that was about 4 am; is that right?

BOOTH: That's correct, yes, about 4.30.

ASTBURY: And you assisted with that baby's admission to the NNU --

BOOTH: I did, yes.

ASTBURY: -- and subsequent care?

BOOTH: Yes.

ASTBURY: Right. We mentioned a moment or two ago that Shelley Tomlins was the allocated nurse for [Baby H]. Any observations about Shelley Tomlins being allocated [Baby H]? Were you content with that situation as the shift leader?

BOOTH: She was excellent. She's a band 5 neonatal nurse. She had the QIS qualification in specialty, so she was perfectly competent and, yes, perfectly happy. As ever, she knew she could call on support should she need it.

ASTBURY: Thank you. We understand that the ethos of the unit was very much support if necessary?

BOOTH: Yes.

ASTBURY: And if not, whoever was supernumerary, whoever was on hand and available; is that right?

BOOTH: Which on that night was myself, yes.

ASTBURY: Was it -- it may well have got busier at 4 am, but was it a busy shift to start with?

BOOTH: Yes. As you can see, we were almost at capacity, albeit they were mainly special care babies, they still demanded a lot of our time for their care. And just the numbers alone would tell me that, yes, we were busy.

ASTBURY: Everybody on the unit will have been occupied that particular shift?

BOOTH: Yes, as a shift leader I wouldn't normally be allocated an infant to look after, but on this night I was.

ASTBURY: But of course [Baby H] being a high intensity care baby was able to have that one-to-one allocation that's required?

BOOTH: It was necessary because she had been poorly for some days.

ASTBURY: Thank you. Any recollection of [Baby H]'s condition that particular night or do you rely solely on the notes?

BOOTH: Solely on the notes, I'm afraid.

ASTBURY: I think you have observed that she had chest drains fitted.

BOOTH: Yes.

ASTBURY: You were aware that there had been a number of events involving desaturations and emergency treatment?

BOOTH: That's right, yes.

ASTBURY: I think you really alluded to that when you said how it was important that she had the one-to-one care that you were able to give her?

BOOTH: Yes, she had been unstable.

ASTBURY: She was still ventilated?

BOOTH: Yes.

ASTBURY: And I think from the notes you were able to identify a single signature of yours dealing with, I think, co-signing for some TPN that particular night?

BOOTH: Yes, I believe so, yes.

ASTBURY: And that was your only involvement with [Baby H]?

BOOTH: Yes. I was quite a peripheral part in the process that night.

ASTBURY: Right, okay. We have heard about an event shortly before or around 1 am on that particular shift when [Baby H] required urgent care and attention. Do you have any recollection of that event?

BOOTH: Only from what I've read, but I know she needed some re-intubating and some drugs to resuscitate her.

ASTBURY: Did you play any part in that?

BOOTH: No, I didn't. I do not believe I did, no.

ASTBURY: Okay. Other babies on the unit still need their care?

BOOTH: Exactly, and with the high calibre of staff we had on that night, I was confident that all her care needs would have been met.

ASTBURY: Okay. Despite how busy the shift was, were you satisfied, on reflection, that the situation was controlled and managed throughout the shift?

BOOTH: Very much so, yes. I had no concerns whatsoever.

MR ASTBURY: Thank you. I have no more questions for you, but if you could wait there, please.

BOOTH: Yes, of course.

Cross-examination by MR MYERS

MR MYERS: Mr Booth, you've relied upon the notes to assist in the recollection, haven't you?

BOOTH: Yes.

MYERS: It's very difficult just to think straight back to remember everything sitting here now, isn't it?

BOOTH: It is. It's quite daunting, yes.

MYERS: One thing that does stick in your mind, I'm going to suggest, is it was a very busy night that night.

Is that something that stands out?

BOOTH: Yes, yes.

MYERS: And you've been asked about a baby who came to the unit and we're just using the initials --

BOOTH: LO, yes.

MYERS: Was it about 4 o'clock or something like that that LO came on?

BOOTH: Yes, you're correct. He was born about 4.30 in the morning, yes.

MYERS: And LO required very intensive attention, didn't he?

BOOTH: He did, yes.

MYERS: Did you form part of the team that was looking after him?

BOOTH: I participated, yes, and, yes, I did take part in his care, yes.

MYERS: Do you recall whether Lucy Letby was someone who, with you, was taking part in his care?

BOOTH: Yes, she was, yes.

MYERS: And that was something that you were both very occupied by, wasn't it?

BOOTH: From the time of his admission just after 5 am, yes, right until -- beyond the end of the shift, to be fair.

MYERS: Thank you. You made various statements to the police, as have others, in connection with the investigation, and you made a statement on 10 July 2019 dealing with this incident. I just want to ask you about some comments you made about Ms Letby at the conclusion of that statement.

Weighing up her professional abilities, did you find her to be conscientious and excellent?

BOOTH: Yes, very much so, yes.

MYERS: By way of example, did you recall at that time that that week she'd even done an overtime shift?

BOOTH: Yes. That was not unusual for us. She was very conscientious.

MYERS: She was someone who was quite willing to work extra or have her shifts changed at the last minute, wasn't she?

BOOTH: Yes.

MYERS: And did you find her to be a hard worker and always very accommodating?

BOOTH: Without a doubt, yes, very much so.

MYERS: Did you find that she became upset with events that took place, as did others, when things went wrong?

BOOTH: Oh definitely. I mean, it was a harrowing time and, yes, we all got upset and, without doubt, Lucy as well, yes.

MR MYERS: All right. Thank you, Mr Booth. That's all I wanted to ask.

Re-examination by MR ASTBURY

MR ASTBURY: My Lord, just one matter arising.

Nurse Booth, I think you mentioned that baby LO was born at 4.30, I think was your recollection.

BOOTH: That's right, yes.

ASTBURY: And you confirmed to my learned friend that once LO had arrived within nursery 1, yourself and Lucy Letby cared for him together?

BOOTH: Yes.

ASTBURY: I'm going to ask you to take -- in front of you -- you might want to move your glass of water first, that might be the first request. There's a large white file in front of you. It's the most cumbersome, I'm afraid, as is often the way. I would like you to turn, please, and could I ask the ladies and gentlemen of the jury to turn to this page as well -- so you understand, we have within this an agreed document setting out the type of diagram that you've just seen on the sequence of events chart. We have an equivalent one which shows the end of the shift. I showed you the one at the start of the shift with yourself in room 2 and I'd like you just to look, please -- it's the very last page in the very last NNU review, please, everybody. Just turn to the last page, if that's okay.

I'd like you just to look at the two boxes on the right. The upper box deals with [Baby H] and tells us that the transport team for [Baby H] arrived at 4.10.

BOOTH: What page is it?

ASTBURY: It should be the very last page in the bundle.

BOOTH: Got it, yes.

ASTBURY: It's a similar diagram to the one I showed you, but over on the right-hand side hopefully there are two boxes headed

"Babies discharged from NNU", "Babies admitted to the NNU". Can you see those two boxes?

BOOTH: Yes.

ASTBURY: Sorry, I was racing ahead. The first box, please.

[Baby H]. Of course she is discharged, we've heard, about 5.25 that morning when the team from Arrowe Park arrived.

BOOTH: That's right.

ASTBURY: And we can see -- sorry, when they left. The team arrived at 4.10, so that would have been about 20 minutes before LO --

BOOTH: There was an overlap.

ASTBURY: -- was born. LO in fact, if we look at the bottom of the page, didn't arrive in the NNU until 5.10 in the morning, just to put things in the right sequence.

BOOTH: Yes. That sounds about right, yes.

ASTBURY: That's your recollection?

BOOTH: Yes.

ASTBURY: Thank you. Can I ask, we can go to the tile if necessary, it'll be tile 500, please, Mr Murphy. Just go behind the first level, please.

Again, just confirming that timeline. It's 5.25 that [Baby H] was moved to the transport incubator without issue, left at 5.25.

BOOTH: Yes. That sounds right, yes.

ASTBURY: So transport team arrive, 4.10. LO born, 4.30. LO arrives in the unit at 5.10. 5.25, [Baby H] is away with the transport team satisfactorily.

BOOTH: Yes.

MR ASTBURY: Thank you. I have no more questions, Nurse Booth. Thank you.

Does my Lord have any questions?

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

Thank you very much for coming again to give evidence, Mr Booth. You will be back again, according to the list I've seen --

BOOTH: Yes, I believe so, yes.

MR JUSTICE GOSS: -- later on in the trial. So please remember what I said to you when you last gave evidence: don't talk to anyone about anything to do with this case --

BOOTH: Of course.

MR JUSTICE GOSS: -- until it's all over. Thank you very much indeed.

If you just remain where you are, we'll empty the court now.

How much longer have we got this afternoon?

MR DRIVER: My Lord, may I answer that question? There's a statement to read from the transport consultant. The statement itself is only five pages long, but within the statement he points to a number of sets of notes that are on our presentation but haven't really been focused upon yet. So if I may, I'll read the statement and go to the relevant tiles and the evidence that lies beneath.

MR JUSTICE GOSS: Of course. All I was just wondering about is whether we should just have a slightly more substantial break than 2 minutes. If we have up to around 10 minutes.

MR DRIVER: Yes, please.

MR JUSTICE GOSS: So in other words our mid-afternoon break.

Then we'll have enough time this afternoon to get to where we want to get to, will we, or where you want to get to?

MR DRIVER: Ample time, thank you.

MR JUSTICE GOSS: So a ten-minute break now and then we'll hear the rest of the evidence today. Thank you very much.

So 3 o'clock, in other words.

(2.53 pm)

(A short break)

(3.03 pm)

MR JUSTICE GOSS: Mr Driver.

Witness statement of DR SRINVASARO BABARAO (read)

MR DRIVER: Members of the jury, I'd like to read from a statement made by a Dr Srinvasaro Babarao, who is a consultant at Arrowe Park. It says:

"I have worked as a consultant neonatologist at Arrowe Park since February 2013. My role involves being a consultant for the neonatal transport for Connect North-west Transport Service.

"From the medical case notes and from memory, I can say that I was on call on the night shift of the 26th into 27 September 2015 to deliver transport."

If I could ask Mr Murphy next to put up the tile at 456, please. We looked at this briefly last week, members of the jury, but just to remind you that at this time, 02.30, on Sunday the 27th, Dr Neame, who gave evidence before you this morning, contacted Arrowe Park to organise the transfer and transport of [Baby H] following the events that he described to you this morning.

So going back to Dr Babarao's statement, he says:

"On 27 September 2015 at 2.30 hours, I received a phone call in the early hours of the morning for moving a baby. This baby was [Baby H], 34 plus 3 weeks' gestation, going from Chester Hospital and being taken to Arrowe Park Hospital for intensive care."

He then refers to his notes and if Mr Murphy could take us to the next tile, please. This is a note made by Dr Babarao, as we'll see in a moment. So two pages, beginning with the time and date. A phone call from a colleague of his, who he will refer to in a moment when I return to his statement.

He says:

"From my notes I have written that the baby is a 34 weeks' gestation baby, day 5 of life. Was born after induction of labour. It looked like the mother had type 1 diabetes mellitus and the baby was born in a fair condition at birth. Needed CPAP, which is a form of respiratory support, for the first 2 days, and then the baby started deteriorating on 24 September, which was 2 days later.

"The baby had a tension pneumothorax on the left side, meaning there was air leak into the chest cavity on the left side outside the lung, which needed a chest drain insertion. I have also written that the air leak re-accumulated, that required

another chest drain, and it looks like they put these three chest drains in total in to relieve the air leak."

If we could then go, please, Mr Murphy, to tile 503 and we'll see what lies behind that.

"I have also written in my notes on 26 September 2015 that in the early hours, which was 24 hours' time from referral, the baby had an episode of collapse, which means that there was a prolonged bradycardia. That means a slow heart rate for a long time. That was related to endotracheal tube change. That's why I have written 'ET change' and the baby needed 20 minutes of cardiopulmonary resuscitation and I have written that the baby became stable after that, was stable for 24 hours, then had a blocked endotracheal tube later that evening, which had to be changed again, so on the same night, I think the episode they are talking about, at 01.00 hours the baby had a desaturation whereby the oxygen levels reduced and bradycardia, low heart rate, and the endotracheal tube was changed again. The baby had cardiopulmonary resuscitation. I have not written for how long, but did write 'Had one dose of adrenaline' as the medication. So at the time they thought about whether the baby had any cardiac problem or whether there were any neurological problems that was making the baby behave like this.

"Further on they said at the point of referral the baby was stable, on the ventilator, and SIMV is a mode of ventilation. The ventilator settings are not hugely significant. It was stable. The blood gas they gave me was slightly abnormal with the CO2 being high, but the baby was ventilated and had had cardiopulmonary resuscitation prior to the gas. The baby was on 150ml per kilogram per day of fluid, which was TPN, total parenteral nutrition, which includes fats, proteins, sugar, et cetera, via a long line, which is a central line which they put in preterm babies to deliver parenteral nutrition.

"I have written that the blood pressure was acceptable, which was 33 cuff blood pressure, and urine output, which was 5ml per kilogram per hour, which was again good. We did not have a potassium sample, which is K+, which I have written, but it was previously normal.

"I have also written there were no risk factors for infection and the CRP, which is an infection marker, was 6, which is not really high. The baby was cultured again, meaning blood cultures were sent after the deterioration, and I have written the blood sugars remained stable.

"I have written that the baby had a long line sited in the right arm and the tip was in the subclavian vein, which is an acceptable position. I also clarified that they had done an

echocardiogram, which I was told not done, and I asked about a chest X-ray, which showed no cardiomegaly, because they told me about the cardiac issues.

"I asked whether they had done a cranial ultrasound scan and they said it was normal and the baby did not have any clinical seizure-like activity, meaning there were no fits. I was just ruling out whether there was any cardiac or neurological issues. I have written:

"'I have given a plan to them to check calcium, magnesium and potassium levels and suggested to them to change the second line antibiotics.'

"Meaning change the antibiotic to a higher coverage. I also suggested to get an ECG done and asked them to repeat the chest X-ray to look at what was happening with the chest drain and whether there was any accumulation of air leak. I have not established, looking at the notes, whether I was able to look at the chest X-ray and its results. I suggested to them to put a second cannula, like a venous line, and then I said to try an arterial line, meaning -- which is like another line going into the artery so we can monitor blood pressure properly."

If we scroll down this note we can see that the doctor has recorded the time that handover was taken from Chester to the transport team led by Dr Babarao.

We can see here the measurements taken of [Baby H] at 045 (sic), at which point in time she had been transferred to the transport incubator. Both chest drains connected to a flutter valve each. There was no swinging, flutter or draining noted from either drain.

The last sentence of that paragraph, I've not read it all, says:

"Minimal mucky [I think that says, maybe mucousy possibly] aspirate from the NGT."

If we scroll down to the bottom of these notes, please. Pausing there, we can see the top line:

"Cuff BP [blood pressure] satisfactory."

So these are the measurements taken of the baby as she's being placed in the transport vehicle and then en route from Chester to Arrowe Park, which event we can see occurred at 05.30, despatched (inaudible) Chester.

At 05.45, [Baby H] was settled, and the observations were within the normal limits, satisfactory. Again no swinging or fluttering from the drains.

At 06.00 hours it is recorded that the transport team and [Baby H] arrived at Arrowe Park. The handover was given to staff within Arrowe Park. Again, reading below there:

"BP and [I think that says 'heart'] satisfactory. Infusions satisfactory."

And again at this point, ie the point of transfer from the transport to Arrowe Park itself, no swinging or fluttering from either chest drains. Gas was taken.

I can't read the next word, but then "very good", I think it says. The ventilation rate was reduced to a level of 40 beats per minute and the baby was transferred to Arrowe Park equipment, that is to say taken off the transport equipment and handed over, effectively, into the care of Arrowe Park.

If we could go to tile 504, please, Mr Murphy.

Returning to Dr Babarao's statement, he states:

"At 5.30 on 27 September I have written a retrospective note at Chester or I would have written this en route from Chester to Arrowe Park after I have stabilised and moved the baby on to the transport incubator.

"I have recalled things that I have done at Chester. I have written from the ventilation perspective the baby was stable. The oxygen requirement was less than 30%, which is not worrying at all, and the chest X-ray I reviewed revealed no pneumothorax, meaning no air leak, and the blood gases were good. Fluids are retained at 150ml per kilogram per day on TPN, but we changed to 10% glucose because during transfer we cannot take parenteral nutrition, so we stop it and change to a plain 10% glucose infusion.

"Blood pressures were fine at 38 to 42 cuff, which was good for that gestation. The capillary refill time was less than 2 seconds, which is also normal. Heart rate was 130, which was normal. Blood sugars were stable. No bradycardia, meaning no heart rate drop. The base deficit, which is BE, were written at minus 2, which is normal. For urine output, I put a tick, which means there was good urine output, which means it's reassuring. Medications are 'Second line antibiotics commenced'..."

And he states the particular antibiotics:

"... which was per protocol at Chester. Also, I have written that the CRP had gone up to 49, which is high, and morphine was being administered at 40 micrograms per kilogram per hour, which is a little higher than the usual sedation dose for the baby. Temperature at 36.3 is slightly low for a baby. I have written 'Full blood count within normal limits'. Potassium was normal, 3.7. The platelet count was 311, which is again normal. Haemoglobin 107, which is sort of normal for this age. I have written 'Intravenous long line right upper limb'. I have seen the X-ray. It was subclavian, in position on X-ray, which is not the best position but acceptable.

"I have written 'positional', which means the long line worked better when the upper limb was kept in certain position, which is again not unusual.

"The transport team included myself and Sandra Osaka(?). We went to Chester to transfer this baby to Arrowe Park, transfer date 27 September.

"The first gas was noted at 05.10, which means I was at Chester Hospital and the baby was on the transport ventilator, so that means I was ready to move from Chester to Arrowe Park.

"At 05.55 is the time I arrived at Arrowe Park. Upon arrival at Arrowe Park a further blood gas was done. Both these gases were very good so I had no concerns. The transfer to Arrowe Park was uneventful. There were no adverse effects, no issues, no intervention. The care was carried over to the medical and nursing team at Arrowe Park."

And I think that's the last tile that contains any information about this phase of the care of [Baby H].

My Lord, that's, I think, evidentially as far as we can go this afternoon.

MR JUSTICE GOSS: Right. Thank you. It's a bit earlier --

MR DRIVER: Apologies for that, we couldn't measure with precision --

MR JUSTICE GOSS: No, it's not known how long each witness is going to take exactly. As the jury will be aware, we've had clinicians today who have had to take their time off clinical duties to be here anyway, so there we are.

Right. 10.30 tomorrow, please, members of the jury, and we will complete the evidence relating to [Baby H] tomorrow as far as we can. I don't know whether there will be any later evidence, but we've got more to do tomorrow.

MR DRIVER: Yes.

MR JUSTICE GOSS: We'll complete her and then move on after that.

MR DRIVER: We will.

MR JUSTICE GOSS: Thank you very much indeed. 10.30 tomorrow.

(In the absence of the jury)

MR JUSTICE GOSS: Mr Myers, will someone want to go and see Ms Letby?

MR MYERS: Yes, my Lord.

MR JUSTICE GOSS: Someone will be down very shortly.

Thank you very much indeed.

(3.23 pm)

(The hearing adjourned until 10.30 am on Tuesday, 24 January 2023)