1 November 2022
Baby C

CONTENTS

Tuesday, 1 November 2022
(10.30 am)

(In the absence of the jury)

Housekeeping

MR JUSTICE GOSS: Mr Myers, thank you for the email that's been forwarded to me in relation to several matters. As far as difficulty in hearing is concerned, I think there is the -- the loop is now available, but I would rather, because obviously if they're having difficulty behind the screen hearing there, other people at the back of court may well be having difficulty as well.

MR MYERS: Yes.

MR JUSTICE GOSS: So I'm going to encourage everyone, including myself, to keep our voices up. If it is apparent that even if we are speaking relatively loudly and clearly there is difficulty hearing, then please use the loop system. I think it's already there, is it?

It's not. Well, it's available if it's needed.

If you can't hear at any time, just raise a hand and I'll see it, all right, and we'll address the problem then because you must be able to hear what's going on.

MR MYERS: We're grateful, my Lord. We are dealing with this for the time being.

The other issue is to do with where Ms Letby is positioned in the dock. There is a little difficulty in seeing the witnesses who give evidence without a screen during examination-in-chief. There's also the difficulty with resting the material she has around her.

Ideally, were she to move one seat to her right, as we look at it, or as your Lordship looks at it, that would be easier, but we understand there may be a difficulty with that being picked up on camera, close to where the jury sit. So we will make our own enquiries as to whether she can be positioned in a way that makes it easier to see the prosecution witnesses in chief and to put the materials that she is using in a place where she can access them. We don't specifically ask for anything from your Lordship at this point but that's just one other matter we're trying to deal with.

MR JUSTICE GOSS: Thank you. I'm aware of it and, if necessary, we'll revisit it.

MR MYERS: Thank you.

MR JUSTICE GOSS: But as far as voice is concerned, I will urge everyone to speak loudly.

MR MYERS: I'm grateful, my Lord.

MR JUSTICE GOSS: And certain witnesses yesterday spoke very quickly --

MR MYERS: Yes.

MR JUSTICE GOSS: -- and the stenographer had difficulty, so I shall slow witnesses down.

MR MYERS: We're grateful and we'll endeavour to do so, so far as we remember to, my Lord.

MR JUSTICE GOSS: Thank you very much.

MR ASTBURY: Yes, point taken, my Lord.

I apologise for this, despite where -- we all understood where we would be at 10.30, Dr Gibbs is only just on his way. So he's coming through the building.

I apologise for Witness Services; we're a little surprised.

While we're waiting there's another issue I'd like to raise, please.

MR JUSTICE GOSS: Certainly.

MR ASTBURY: I've been helpfully reminded about a question posed by the jury about alarms and whether they're recorded on monitors. So although I told -- or I had finished, with my Lord's leave, I'll just see if we can answer that question for the jury now.

MR JUSTICE GOSS: All right. There can't be any difficulty with that. That reminds me of one other, because I've been making notes as I have been going along, and there is another outstanding issue that I'm sure will be addressed of the walk-throughs that we watched of the neonatal unit. There were two and we need to know the date --

MR ASTBURY: We have the date for one of them and we are just waiting on the date for the other.

MR JUSTICE GOSS: Right, good.

MR ASTBURY: We will wait until we have other before --

MR MYERS: Would your Lordship excuse me? There's one item I would like to show to my learned friend Mr Johnson before I cross-examine. If your Lordship would forgive me --

MR JUSTICE GOSS: Certainly. Do it now, yes.

(Pause)

MR MYERS: I'm grateful, my Lord.

MR JUSTICE GOSS: Not at all.

Dr Gibbs can come in then, please.

Jury in, please.

DR JOHN GIBBS (continued)

MR JUSTICE GOSS: I'm sorry we're a few minutes late. I've been dealing with administrative matters relating to the trial.

I gather that none of you has any problem with rail strikes. Excellent. That means we will just sit as normal until further notice. But there is one day, of which one of you is aware, when there has been a request that we finish at 2.30 in the afternoon because of an important commitment that has to be kept. I said I would accommodate important commitments and I'm going to accommodate this one.

So on Thursday, 17 November, which is 2 weeks on Thursday, we will be finishing at 2.30 in the afternoon.

All right? So if you want to make a note of that, Thursday 17 November, finishing at 2.30. This coming Friday we're also going to finish a bit earlier, not as early as last Friday, but we'll finish at about 3.15 on Friday. I'm going to ask again, could we start again at 10 o'clock if that's not a problem? It seemed to work quite well to do a three-hour session with a break in the morning and then we'll do an hour in the afternoon. Is that all right for everyone else?

MR ASTBURY: Thank you, my Lord, yes.

I know I finished asking questions of Dr Gibbs yesterday, as I anticipated, but --

MR JUSTICE GOSS: But there's another one you want to ask?

MR ASTBURY: I was helpfully reminded by a jury question (overspeaking) --

MR JUSTICE GOSS: This is a question that you asked so we are going to see if Dr Gibbs can answer it.

Examination-in-chief by MR ASTBURY (continued)

MR ASTBURY: Dr Gibbs, we have heard from previous witnesses about the monitors that were in place in the neonatal unit back in June 2015 and the type of readings that they would display and the, I think, a two-tier alarm system that they contain.

Firstly, can I ask, are you aware whether those monitors would record, firstly, the readings that would have been displayed in real time in relation to the relevant baby?

GIBBS: As far as I can recall, yes, in real time.

ASTBURY: Would it be possible to go back into the monitor and produce an audit or a record of previous readings over perhaps the preceding time?

GIBBS: I'm not sure.

ASTBURY: If you're not sure, please don't --

MR JUSTICE GOSS: If you're not sure -- if you happened to know the answer --

GIBBS: I'm not sure.

MR JUSTICE GOSS: I think what is really wanted -- obviously when an alarm goes off, the display will still be there on the screen?

GIBBS: Yes.

MR JUSTICE GOSS: One can then look at the screen and see why the alarm's gone off.

GIBBS: Yes.

MR JUSTICE GOSS: But what we really need to know is: is a recording made of the readings, an ongoing reading?

A bit like CCTV records for a period of 30 days or something like that, then it wipes out and starts again.

Do you know whether at that time those machines recorded or not?

GIBBS: I don't think they did. There were different monitors that could be used and an oxygen saturation monitor, a separate one, can look back an hour or so. But if the oxygen saturation is being recorded through the main Philips monitor with all the other parameters, I don't think, but I'm not sure, that you can go back and look at a record.

MR ASTBURY: I think the specific question was whether there would be a record of the alarm ever being activated on that Philips monitor. Would you be able to assist with that?

MR JUSTICE GOSS: Activated and deactivated.

GIBBS: Whether it had been activated at some point in time?

MR ASTBURY: Would it be possible to interrogate the monitor and --

GIBBS: I'm not aware that it is possible and I have never done so in my practice.

ASTBURY: If an alarm was deactivated would that be apparent on the screen of the monitor?

GIBBS: Usually, yes. There's a little bell symbol with a line through it if it has been turned off or deactivated.

ASTBURY: Thank you. I think the answer is there is no record; is that as far as you know?

GIBBS: As far as I'm aware, yes.

MR JUSTICE GOSS: So what there is is there will be a display on the screen of a bell symbol to indicate that an alarm's gone off, but with a line through it --

GIBBS: To show that it's been cancelled.

MR JUSTICE GOSS: -- to show that is has then been cancelled. But that will only be on the screen and it's not recorded?

GIBBS: That's correct, as far as I'm aware.

MR ASTBURY: Thank you. I think that's as far as we can go with it.

MR JUSTICE GOSS: That's as far as we can go with Dr Gibbs.

Thank you very much.

Cross-examination by MR MYERS

MR MYERS: Dr Gibbs I'm going to ask you some questions on behalf of Ms Letby.

Before we come to questions about [Baby C], I'd just like to ask you something about the arrangement for the consultants at the hospital.

At the time we're talking, 2015 to June 2016, there were seven consultants in paediatrics at the Countess of Chester, weren't there?

GIBBS: Yes.

MYERS: You were one of those consultants?

GIBBS: Yes.

MYERS: They were all consultant paediatricians; is that correct?

GIBBS: Yes.

MYERS: None of them were specialist consultants in neonatology; is that correct?

GIBBS: Not specialists. All had had neonatal training suitable for a district general hospital.

MYERS: Thank you. Those seven consultants were shared across the children's ward, the maternity ward and the neonatal unit; is that correct?

GIBBS: Yes.

MYERS: How many children's wards are there?

GIBBS: One.

MYERS: So it's one children's ward, one maternity ward --

GIBBS: Yes.

MYERS: -- and one neonatal unit?

GIBBS: Yes.

MYERS: Each week, one of those seven consultants would be designated paediatrician of the week, wouldn't they?

GIBBS: That's right.

MYERS: The other six would remain ostensibly with responsibilities on the children's ward and the maternity unit; is that correct?

GIBBS: No. The consultant of the week duties covered both the paediatric ward and the neonatal unit and, indeed, the maternity ward. We didn't have a lot of activity on the maternity ward that's obviously the mothers under the obstetricians. Most of the babies on the maternity ward are well. If they were particularly unwell they'd come down to the neonatal unit. So our activity was focused on the neonatal unit and the paediatric ward as paediatrician of the week.

MYERS: I just want to be clear: one of the consultants was paediatrician of the week for the neonatal unit?

GIBBS: And the neonatal unit -- I'll fairly sure in 2015/2016 the paediatrician of the week covered both the paediatric ward and the neonatal unit. Arrangements have changed since then but that's what existed at the time we are considering these babies.

MYERS: And what would the other six consultants be in terms of duties then? Where would they be?

GIBBS: They would be running their clinics regularly. The paediatrician of the week would not have any routine planned clinics for that week. We took it in turn because the NHS never closes, it's a 24-hour, 365-day a week (sic) service, so the consultant of the week couldn't be on call for the entire week, 24 hours, 7 days in a row, so the other consultants took it in turns to cover from the evening and overnight each day so the consultant of the week covered the wards during the daytime and each of the other consultants took it in turns to be on call to cover for problems overnight.

MYERS: Were the consultants based, if that's the right word, on the paediatric ward, the children's ward?

GIBBS: No, based on both, but we did spend more time on the paediatric ward than on the neonatal unit often -- it depended what was happening on the neonatal unit -- because the number of admissions to the paediatric ward was much higher than the number of admissions each week to the neonatal unit.

MYERS: The paediatrician of the week would be available between 8.30 and 4.30 pm, something like that?

GIBBS: Yes. And also, having talked about the arrangement for the evening and overnight, the paediatrician of the week would also do one 24-hour cover at the weekend as well.

MYERS: In terms of ward rounds, would there be two ward rounds by the consultant or consultants on the neonatal unit each week, Wednesday and Saturday?

GIBBS: Sorry?

MYERS: Wednesday and Saturday.

GIBBS: No, Wednesday and Sunday.

MYERS: Wednesday and Sunday, right. By contrast, there would be five weekly ward rounds on the paediatrics ward wouldn't there?

GIBBS: Usually, yes.

MYERS: As a general rule, would there always be a doctor, whether it's a senior house officer, a registrar or a consultant, on the children's ward?

GIBBS: There would always be a registrar and a senior house officer, sometimes more than one. The consultant would be there

on the ward during ward rounds and will come back to the ward, if requested, for particular problems.

But the consultant wasn't based permanently on the paediatric ward.

MYERS: Taking the consultant out of it, would there always be a registrar on the children's ward?

GIBBS: Yes, covering the children's ward, not necessarily physically there present the whole time. A fair proportion of the time, yes.

MYERS: There wouldn't always be a registrar on the neonatal unit, would there?

GIBBS: There should have been. Yes, there should have been.

MYERS: Was it the case that the weight of consultant presence was based around the children's ward and the maternity unit rather than the neonatal unit?

GIBBS: As I've mentioned, the maternity unit didn't really feature much in our workload, so it's the neonatal unit and the paediatric ward. Our presence would depend on need. So if there are particular concerns on the neonatal unit, the consultant of the week would spend more time on the neonatal unit. But as I've mentioned, the number of admissions and the turnover was much higher on the paediatric ward than the neonatal unit, consequently the consultant of the week tended to spend more time on the paediatric ward than the neonatal unit.

MYERS: And likewise if they were on duty, the other six consultants would spend more time on the children's ward than the neonatal unit, wouldn't they?

GIBBS: Depending on what was happening. If there were particular concerns on the neonatal unit that might reverse.

MYERS: But as a general rule, as a starting point, the weight of the consultants is in the paediatric unit and the children's ward isn't it?

GIBBS: Yes.

MYERS: Now, would you agree that up to the period of July 2016 consultant cover was quite stretched for the neonatal unit?

GIBBS: No.

MYERS: Well, after the unit had been redesignated a level 1, after July 2016, didn't you receive more consultants, as it happens, at the Countess of Chester?

GIBBS: Yes, but we had applied for and requested more consultants for several years before 2015.

MYERS: Yes, which implies therefore the cover was stretched in some way, doesn't it, before then?

GIBBS: Our level of cover was fairly typical for a district general hospital level 2 unit.

MYERS: I'm keen to know what the cover -- what the reality of the cover was at the Countess of Chester however it's equated to the rest of the NHS. So far as the Countess of Chester was concerned, you had wanted additional consultants to cover the neonatal unit and the paediatric unit for some time, hadn't you?

GIBBS: Yes.

MYERS: And you in fact got them, certainly you got one more, after the unit had actually been redesignated a level 1, didn't you?

GIBBS: Yes, but we had been applying for more long before that.

MYERS: Did you get two, in fact, after it had been redesignated a level 1?

GIBBS: Over the next few years, yes. I'm a little hazy on exact numbers because, as we increased consultant numbers, a number of the new consultants were less than full time. So if we're talking about full time -- I think in the end we went up to nine whole time equivalents.

MYERS: One of which, in fact, was a consultant neonatologist, wasn't it? Is that correct?

GIBBS: No. I think -- I'm trying to think. I'm trying to remember who you're referring to. No, we were all general paediatricians who had done training in neonates appropriate for a district general hospital.

MYERS: When it came to the two additional consultants, after 2016, was application made for one of them to be a consultant neonatologist? Let me start with that.

GIBBS: I can't remember the job descriptions for the new consultants after 2016. All of the consultants at the Countess of Chester Hospital, until I retired towards the end of 2019,

were general paediatricians who had also trained in neonatology. All of the paediatricians undertook general paediatric duties as well as neonatal duties. None of my colleagues did only neonates.

MYERS: In any event, is this correct, that after the time when the unit was actually redesignated level 1, the consultant cover in fact increased by two additional consultants?

GIBBS: Yes, because that had been planned for many years.

MYERS: The first thing is: did it increase by two? And the answer is yes.

GIBBS: Yes.

MYERS: And then that was something that had been requested for some years, wasn't it?

GIBBS: Yes.

MYERS: So at the point when the acuity of the children that you were looking after had been reduced, you then got additional consultants; is that correct?

GIBBS: Yes. But it wasn't because the acuity had been reduced, it had been planned for some years.

MYERS: Yes. It would have been much better if you'd had them before then, wouldn't it?

GIBBS: As for most district general hospitals that constantly struggle against understaffing across all specialties in the NHS, yes, every specialty wants more staff.

MYERS: Yes. And therefore, if it was an improvement after that event, it's something you would have wanted before the redesignation, isn't it?

GIBBS: We had wanted it, but partly it's because of the pressure of the European Working Time Directive, that we were all working too many hours, so we wanted to increase the number of staff, so we could reduce the number of hours we were working.

MYERS: I'm not asking for the explanation behind it, Dr Gibbs, I'm going to establish this, if that's all right, that you had wanted two additional consultants for some time, hadn't you?

GIBBS: Yes, along with most other district general hospitals in the same position as us, yes.

MYERS: [Baby C] was on the limit of what you could accept at the Countess of Chester by virtue of his weight alone, wasn't he, 800 grams?

GIBBS: Just looking at his weight, yes.

MYERS: Yes. In other words, before we even come to consider any other issues in relation to [Baby C], he was on the borderline, wasn't he?

GIBBS: Just with respect to his weight, yes.

MYERS: Yes. But the point is, there were other issues associated with [Baby C] in addition to his weight, weren't there?

GIBBS: That he was premature you mean?

MYERS: That's one issue, isn't it?

GIBBS: Yes, and he was well within the range of premature babies we treated at the Countess of Chester.

MYERS: He had reverse end-diastolic flow; that's correct, isn't it?

GIBBS: Yes, that's probably why he had a low weight and that was related, that's the same problem.

MYERS: That raised the potential for abdominal problems, didn't it?

GIBBS: It increases the chance of necrotising enterocolitis (overspeaking) --

MYERS: It increases the chance of other abdominal problems actually, doesn't it?

GIBBS: Just because he's low weight?

MYERS: No, his overall condition, including the reverse EDF.

GIBBS: Well, it's my understanding that poor circulation from the placenta to the baby, which was manifest in [Baby C] with reverse EDF, predisposes mainly to necrotising enterocolitis.

MYERS: We'll come to other issues shortly and let me ask for your help when I get to those.

He would have been -- it's also inevitable, isn't it, with a baby like [Baby C], that he is going to have problems with infection in hospital, isn't it?

GIBBS: No.

MYERS: Well, he did have, didn't he?

GIBBS: He had suspected infection early on.

MYERS: He had markers for infection, didn't he?

GIBBS: He had mild to moderately raised markers for infection, but they can also be markers for inflammation and not always infection.

MYERS: He's a tiny little baby. Is that not considered some kind of concern if there are raised markers for infection?

GIBBS: As it is in all babies.

MYERS: So it is considered a concern is it?

GIBBS: Yes, if a patient has suspected infection, which we deal with very commonly on the neonatal unit and have done for many years.

MYERS: Do you not think he would have been better placed, when you look at the whole thing in hindsight now, in a tertiary unit rather than Countess of Chester?

GIBBS: That depends on what caused his sudden collapse and unexpected death.

MYERS: In any event, given his health complications, don't you think he would have been better placed at a tertiary unit for the care that he was going to need?

GIBBS: No.

MYERS: You don't?

GIBBS: No.

MYERS: Whose decision was it that he should stay at the Countess of Chester?

GIBBS: I... It's 7 years ago, I can't remember exactly who made the decision and so on. It's a combination between the obstetrician looking after [Baby C]'s mother, the most senior nurse around at the time a baby is born, and the consultant of the week, which was me at the time.

MYERS: So does that mean you would have had input into whether or not he stayed at the Countess of Chester or went to a tertiary unit?

GIBBS: Usually, yes, but I can't remember any discussions held about that for [Baby C] 7 years ago.

MYERS: I'm not going to ask you to remember the wording of any discussions 7 years ago.

I've asked you about infection. Yesterday you were asked about aspirates, gastric aspirates. Do you remember those questions?

GIBBS: Yes.

MYERS: You indicated you were aware that there were some aspirates during the period that he was at the Countess of Chester; is that correct?

GIBBS: Yes.

MYERS: We're able to get a note of the evidence as it goes along in this case. So I'm just looking at this. Your view was that there wasn't any concern because they weren't copious; is that fair?

GIBBS: Yes.

MYERS: And you explained to the jury that the stomach naturally produces acid?

GIBBS: Yes, and mucus and acid, amongst other secretions.

Mucus and acid.

MYERS: And that the concerns for aspirates could be met by giving him ranitidine; is that correct?

GIBBS: Partly. That's to reduce any inflammation from the acid; it doesn't stop the actual secretions.

MYERS: Ranitidine was used for conditions in connection with indigestion, heartburn, acid reflux; is that correct?

GIBBS: Yes.

MYERS: In fact it stopped being used from 2020; is that correct?

GIBBS: In neonates or in general?

MYERS: In general. Was it ceased or did it carry on?

GIBBS: I'm not sure because I'd retired by then.

MYERS: I'm not trying to draw any link between that and [Baby C]'s situation to make that quite plain. But just as a point of interest are you aware it was withdrawn from being used?

GIBBS: No. Are you able to tell me why? Was it concerns about it or just other medicines were more effective?

MYERS: Some concerns. I'm not suggesting there's a link between that and [Baby C].

GIBBS: Right, okay.

MYERS: You said, carrying on with the signs displayed by [Baby C], that vomiting would be a concern.

GIBBS: Yes, correct.

MYERS: Now, I want to be quite clear about this: dark bile or black bile being produced by a baby in any quantity is a concern, isn't it?

GIBBS: It raises some concern, yes.

MYERS: A little baby starts producing black bile; that is potentially serious, isn't it?

GIBBS: No. Some babies reflux bile. It's part of reflux. It refluxes from the part of the intestine just after the stomach and comes back into the stomach. So some normal premature babies have reflux of bile.

MYERS: Bile, yes, but dark or black bile is a particularly worrying indicator, isn't it?

GIBBS: If it's bile, no. Are you implying there's something else other than bile?

MYERS: No. If the colour of the aspirate, the bilious aspirate, the bile aspirate, is dark or black, that is potentially a serious matter, isn't it?

GIBBS: Well, black in gastric secretions is sometimes altered blood.

MYERS: That's not good, is it?

GIBBS: That's inflammation in the stomach. That's why [Baby C] was started on ranitidine.

MYERS: What I asked was whether dark or black bile is a matter of concern first of all, serious concern, Dr Gibbs.

GIBBS: Not serious concern, no. Bile-stained vomiting would raise more concerns because it's more forceful and it indicates there may be, but not always, a more significant bowel problem.

MYERS: Bile plus vomit -- dark bile plus vomit is a red flag, isn't it?

GIBBS: Bilious vomiting in a young baby, yes, may indicate intestinal obstruction. It may. It doesn't always, but you have to consider that possibility.

MYERS: It may indicate intestinal obstruction. For that reason, if a baby begins to vomit bile or dark bile you might even consider speaking to a paediatric surgeon, mightn't you?

GIBBS: I'd investigate the baby first and then talk to the surgeon.

MYERS: All right. Now, I'd like to look at the notes, the nursing notes at 1950, which is slide 170, ladies and gentlemen. It'll appear in front of you, Dr Gibbs.

GIBBS: Just before the slide appears, can I go back to the consultant arrangements, the cover of the neonatal unit and the ward? Because I wasn't sure if you were going to go on to that.

MYERS: By all means.

GIBBS: I don't want the jury to be left with the impression that the consultant of the week, so I, just did ward rounds on the paediatric ward 5 days a week and only twice a week went to the neonatal unit to do a ward round. That was a formal ward round of all patients.

It was my usual practice, after the ward round on the paediatric ward, every day, to then attend the neonatal unit, not to conduct a full formal ward round, but to check whether the junior doctors on the neonatal unit, and the nurses, if they had any concern about any of the babies.

I can't remember exactly what I did with [Baby C], whom we had no special concerns about, apart from the fact he was a very small baby and may be at risk of problems because of that. I can't remember what I did.

I would be very surprised if I didn't discuss him and see him, but the fact that I didn't write in the notes meant that I

didn't have any particular concerns or wanted to change his management that I had to write in the notes.

In addition, every day, at 8.30 in the morning, the consultant of the week -- we used to sit down with the junior doctors coming off the night shift and all the junior doctors coming on to the day shift to discuss all the neonatal patients.

MYERS: I'm going to ask you to slow down a little bit, Dr Gibbs -- that's not to be difficult but because a note is being taken. You were explaining -- you said every day, this is the explanation you want to give, that every day --

GIBBS: At 8.30 in the morning the consultant of the week would sit down with the junior doctors coming off from the night shift and with all the junior doctors coming on for the day shift --

MR JUSTICE GOSS: Pause there, pause there.

MR MYERS: It's because a note is being taken of what is being said, not necessarily by people just in this courtroom and for that reason we have to take it steadily.

So you were explaining, Dr Gibbs, please carry on.

It is difficult stop-starting maybe but we have to do it that way.

GIBBS: All the junior doctors covering both the paediatric ward and the neonatal unit discussed all the patients. And we did the same again at 4.30 in the afternoon. So every neonatal patient, including ones that were small and premature, for every neonatal patient and every paediatric ward patient was discussed twice a day.

So I'm sorry for rushing that a bit but I was just getting the impression that the jury might think the consultant of the week just didn't bother looking at babies on the neonatal unit except for the two ward rounds a week. It was my usual practice to go to the neonatal unit every day.

MYERS: The point I was investigating with you, Dr Gibbs, was whether or not the weight of the consultants was focused on the paediatric children's ward rather than the neonatal unit.

That's what I asked you and that's the point I was making.

GIBBS: Yes, when the activity is higher on the paediatric ward than on the neonatal unit.

MYERS: So far as [Baby C] is concerned you explained you had no particular concerns in his case and we've heard what you said about when a red flag might arise with a baby in terms of bile, particularly with vomit. Therefore I'm going now to, please, side 170, Mr Murphy. I'm going to ask you to enlarge a note which is on the right-hand side, we're going to just expand this. That's the one.

This is a note by Yvonne Griffiths, who's a level 6 and responsible for the running of the ward. Actually, this note is put on to the system on 14 June at 5.38 pm, which is some time after [Baby C] had died. But it was a note actually made on 12 June, but put on the wrong child's notes.

Reading through it, picking up from nursing notes printed and rewritten as follows:

"Assumed care of infant at 20.00 hours. Assistance with ventilation throughout the day by N CPAP on pressure..."

And it gives the pressure. Moving on:

"No apnoeas noted and caffeine given as prescribed.

Long line inserted by Dr Beech on second attempt and maintenance fluids set up. Peripheral cannula in hand removed. [Baby C] unsettled at times. Soothed with pacifier and enjoyed kangaroo care with parents. X-ray of long line confirmed prior to fluids commenced.

"18.30. Bile noted on blanket. Nasogastric tube aspirated and 2ml of black-stained fluid obtained.

Infant too unsettled for lumbar puncture."

Pausing there, there's a reference to 2ml of black-stained fluid; yes?

GIBBS: Yes.

MYERS: And we can also see, at 1830, "bile noted on blanket".

That's not an aspirate, that's something that has been ejected from [Baby C], isn't it?

GIBBS: It doesn't describe how it was ejected from [Baby C].

He had been handled, it says, by Dr Beech to insert the long line and he was unsettled or too unsettled for a lumbar puncture. If it was active he may have posseted his gastric contents. And posseting in babies is a very frequent problem.

Usually once they have been fed it is the milk that spills out, just runs down the chin after a feed.

MYERS: But it raises the possibility, as a starting point, of vomits, doesn't it?

GIBBS: That is one possibility or posseting is much more likely as it is much more common.

MYERS: We may have vomit with 2ml of black bile being produced here; yes?

GIBBS: That's a possibility.

MYERS: We note, of course, the entry had been put under the wrong notes at the time. That's not something that has anything to do with you, but that's a fact, and it was moved across after [Baby C] had died, just so you have the picture that's where that entry went.

GIBBS: Right. But the nurse who made that entry would have handed over information to the other nurses at change of shift.

MYERS: One would hope so.

GIBBS: Yes. I'd be much more concerned if [Baby C] had continued to produce a lot of bile-stained aspirates and was vomiting them. I'm not aware that happened on the unit, that he kept on vomiting bile. I'd have been very concerned if he did, so I'm not sure this actually came to anything.

MYERS: Right. Let's go and have a look then at the intensive care chart, please. The first one is at page 2009, which is slide 25, please.

If we enlarge the right-hand side, the bottom half of the right-hand side. We've heard what you said about your concern if this was to carry on. We know that that recorded events by 18.00 on -- what we have just read recorded events at 18.00. Just so you know, Dr Gibbs, these are the observation charts for 12 June for [Baby C].

There is no entry for 18.00 reflecting what Nurse Griffiths put in her notes. We've already dealt with that previously in the evidence but if you look you'll see it and it wasn't found.

As it happens, that wasn't put on the chart. In fact, if 2ml of black bile had been aspirated, that is something that should have been put on the chart, isn't it --

GIBBS: Yes.

MYERS: -- (overspeaking) query what you said about vomit? You said various things about the continuing production of vomit or bile. If we look on here we can see by 9 o'clock there's dark bile still being produced, isn't there?

GIBBS: Yes, 5ml. It doesn't say vomited, though, does it?

MYERS: Let's go down to midnight --

GIBBS: It doesn't say vomiting at 9 o'clock.

MYERS: Midnight:

"Vomit, dark bile."

That's what you've been describing, isn't it?

GIBBS: Yes, that would cause concern.

MYERS: Yes. And that's the sort of thing which means that the person in charge might be considering if there's some other type of investigation or procedure that should take place, isn't it?

GIBBS: Yes. So that vomiting continued -- this is the 12th, is it, the date of 12th?

MYERS: This is midnight on the 12th going into the 13th.

GIBBS: And on the 13th the vomiting continued, did it?

MYERS: We'll move on to the 13th. But the fact is by this point now this is a matter for concern, isn't it?

GIBBS: Yes, if the vomiting continued yes.

MYERS: You have just said there it would be a matter of concern from what we can see here.

GIBBS: There's one vomit there, so if the vomiting continues it would be of concern.

MYERS: I am just going to suggest first of all that at 18.00 we have seen something deposited on his bedding from the note of Nurse Griffiths?

GIBBS: Yes, and we don't know if that was a posset after being handled for the long line or whether that was a vomit.

MYERS: You're looking are for things that can be a cause of concern, surely, aren't you?

GIBBS: Yes.

MYERS: And staff are on the lookout for it; yes?

GIBBS: Yes.

MYERS: You are not just sitting back and thinking, let's see if there's really a problem, are you?

GIBBS: Posseting and gastric aspirates are very common in neonates.

MYERS: (Overspeaking) --

GIBBS: It's only if vomiting persists. There's one vomit here.

That is a worry.

MYERS: Let's go over the page to the following day, slide 44, 2010. If we can enlarge the right-hand side. Can we enlarge the whole of that, Mr Murphy, if possible?

If we look down there, what we will see are regular entries for the aspiration of bile. We can enlarge it a bit starting at 08.00 because that's where the entries for bile begin.

We have dark bile being produced consistently, really, certainly up to some time before 10 or 11 o'clock, don't we?

GIBBS: Yes. It doesn't say any vomiting though.

MYERS: But there has been vomiting, hasn't there?

GIBBS: There was one vomit recorded, yes, on the 12th.

MYERS: All within the one 24-hour period leading up to [Baby C]'s collapse and death, isn't it?

GIBBS: There was one vomit, 24 hours -- over 24 hours before and these are gastric aspirates that are being recorded with some bile in them. As I mentioned earlier, some normal physiological -- just a physiological phenomenon.

In some little babies, premature babies, more than term babies, yes, you can have regurgitation of bile.

MYERS: This is consistent though with a potential underlying problem of some sort isn't it?

GIBBS: It might be.

MYERS: How are you going to find out for sure --

GIBBS: These aspirates --

MR MYERS: Sorry, my Lord?

MR JUSTICE GOSS: Just let him finish. Finish your answer, please.

It might be, you said?

GIBBS: Yes.

MR JUSTICE GOSS: It might be and then you were going on to say something else.

GIBBS: These aspirates are not increasing at all. It's 0.5ml all the way down the page that I can see so they weren't increasing, they were static.

MR MYERS: How are you going to find out if it might be a cause for concern, might be?

GIBBS: Examine the baby. And in particular, examine the abdomen because this is related to abdominal problems possibly.

MYERS: You also said earlier that you may speak to a paediatric surgeon if you are finding vomit with dark bile.

GIBBS: Yes, but I did say I'd examine the baby first.

MYERS: Your focus, not just yours, but on the unit, with [Baby C] was very firmly on NEC, wasn't it, the risk of NEC?

GIBBS: Yes, because of the reverse end-diastolic flow before his birth.

MYERS: Just pause there for a moment and imagine a full-term infant, maybe 8 pounds, on the maternity ward who had been born. So not [Baby C]. If a full-term infant was to start producing black bile, whatever quantity, that would be a concern wouldn't it?

GIBBS: It would because we'd only know that because they were vomiting up bile. Little [Baby C] had a nasogastric tube down into his stomach, sucking out the stomach contents at frequent intervals, and that's how we knew there was some bile in it.

MYERS: We've seen at least one vomit with dark bile that's recorded, haven't we?

GIBBS: There was one vomit recorded, yes.

MYERS: And we have other things that we know were not, it seems, recorded at some point during the afternoon of 12th. That's a fact, isn't it, although you weren't here to hear Nurse Griffiths' evidence?

Just staying with a full-term infant: any amount of black bile being produced, do you agree, would be an immediate concern?

GIBBS: If they were vomiting it, yes.

MYERS: If they were vomiting it. And we've had vomiting here, haven't we?

GIBBS: We had one vomit and it hasn't persisted. Over the next day there's been no more vomiting recorded here.

MYERS: Don't you think there's a chance here what's happened is, because [Baby C] is at high risk for NEC, that is what people have been thinking rather than exploring some other possibility that may lie behind a gastric problem?

GIBBS: It's difficult to know exactly what I was thinking or anyone else was thinking 7 years ago. Bile-stained vomiting, and I did mention this earlier, is an indication of intestinal obstruction rather than necrotising enterocolitis. So any baby, premature or term, who has bile-stained vomiting raises the possibility that they may have an intestinal obstruction --

MYERS: All right.

GIBBS: -- which is different to necrotising enterocolitis.

MYERS: It is. The focus of the unit with [Baby C] was on necrotising enterocolitis, wasn't it?

GIBBS: That was a particular risk we knew existed for him because of the reverse end-diastolic flow, yes.

MYERS: Let's think what --

GIBBS: We were not just examining him for the few days he was alive just looking for necrotising enterocolitis. For example, he had significant breathing problems that were rapidly improving in the first few days of life. So we weren't just focused on necrotising enterocolitis.

MYERS: You have mentioned intestinal obstruction.

GIBBS: Yes.

MYERS: Let's think about that, please. I'm going to ask you just to look at a very simple picture of the structure of the gut because we've heard various references to the intestines and it might help for us just to pause, with your assistance, just to see the layout of them. I'm going to ask Mr Murphy to put up a document labelled D8, please.

It's a schematic image, Dr Gibbs, of the small and large intestines to assist with layout. I'm going to go over this with you. It plainly depicts an adult.

Before we come to the layout, do you agree one difference, and probably the main difference with a neonate, is that we can see on the thicker part of the intestine little ridges on it, can't we? Can you see where it says "ascending colon" on the left?

GIBBS: Yes.

MYERS: And it goes across the transverse colon and down the descending colon. The image there has little ridges on it?

GIBBS: Yes.

MYERS: And you wouldn't necessarily or you wouldn't have those ridges on the large intestine of a neonate, it would be smooth on a neonate?

GIBBS: Smoother, yes.

MYERS: All right. So I just acknowledge that difference.

But just in terms of structure, looking at the gut, the stomach is the large space, the large area marked on the upper right, so -- that's it, that's the area of the stomach. Is that correct, Dr Gibbs?

GIBBS: Yes.

MYERS: From the stomach, the gut pass down, it's labelled the duodenum, but it goes down into the small intestine?

GIBBS: Yes.

MYERS: And the small intestine are the collection are cylindrical tubes packed together in the centre of the abdomen?

GIBBS: Yes, there's one single tube folded together.

MYERS: So when we hear about the small intestine, that's what that is?

GIBBS: Yes.

MYERS: And then the small intestine leads into the large intestine, doesn't it?

GIBBS: Yes.

MYERS: And it leads in through an area called the caecum; is that correct?

GIBBS: Yes.

MYERS: And we can see the caecum marked just on the lower left of the diagram. So that's where the small intestine comes into the large. Then in fact, we get into the large intestine which has the ascending colon going up the right-hand side, hasn't it?

GIBBS: Yes.

MYERS: And then it goes across and over on this diagram, the area of the small intestine. That's still the colon, is it, the transcending colon?

GIBBS: Transverse colon.

MYERS: Across the top, thank you. And down the descending colon; yes?

GIBBS: Yes.

MYERS: And then it's actually labelled the sigmoid colon, just towards the end, but then that leads into the rectum, doesn't it?

GIBBS: Yes.

MYERS: And the rectum to the anus and then out of the body?

GIBBS: Yes.

MYERS: So when we are hearing reference to the small intestine and the large intestine, that's just to help us with the layout there, Dr Gibbs.

GIBBS: Yes.

MYERS: In a gut that is functioning correctly, whatever enters into the stomach should eventually pass through first the small intestine and then into the large intestine, shouldn't it?

GIBBS: Yes.

MYERS: It should, if the gut is functioning correctly, continue to travel that way, all the way around the large intestine, down round to the rectum, and then out, unless it's absorbed on the way?

GIBBS: Yes.

MYERS: That applies in the normal course of events to fluids that go in?

GIBBS: Yes.

MYERS: It would apply even to air that went in, as it happens, it would pass through the intestines and come out?

GIBBS: Mostly. Some of it comes back up.

MYERS: All right. Some might come up.

But if we're talking about the direction of flow through the intestines, air would pass in, and if it continues to enter, it would pass through the small intestine, round the large intestine, and then eventually out, wouldn't it?

GIBBS: Yes.

MYERS: Now we've looked at that, I'd like you to help us with some images we have and some radiographs. Before we turn to those, day in, day out, as a paediatrician, you would look at things like chest X-rays and abdominal X-rays for the babies in your care, wouldn't you?

GIBBS: Yes.

MYERS: That's part of the work of a clinical consultant paediatrician?

GIBBS: Yes.

MYERS: You will make decisions based upon what you see on the radiographs, won't you, clinical decisions?

GIBBS: Yes, as would junior doctors, particularly registrars, because they are more experienced.

MYERS: I'm simply asking that to establish that when it comes to dealing with radiographs, that is an area you would deal with day in, day out as a consultant paediatrician?

GIBBS: Yes and they'd also be reported by a consultant radiologist in the hospital.

MYERS: When we see a radiograph with the accompanying report in writing is that the consultant radiologist who's done that report?

GIBBS: Yes, but there can sometimes be a delay and so we often look at the X-rays on the neonatal unit before there's been a report.

MYERS: All right. We know there are a number of X-rays that were taken of [Baby C] and one of them was taken at about 12.38 pm on 12 June. I'm going to put that up now.

It's at item 1996. I'm not sure there's a slide number, ladies and gentlemen, so you might need to go to the additional material.

This is an image taken, we can see, at 12.36 on 12 June, and it's an image of [Baby C]. Before we come back to that, it comes also with a note from the radiologist and that's at the following page, 1997, so let's have a look at 1997, please.

Can we go up and enlarge the first part of the note?

Thank you, Mr Murphy.

We can see at this time the note says:

"There is now marked gaseous distension of the stomach and proximal small bowel."

"Proximal small bowel" means the small intestine nearer to the stomach; is that correct?

GIBBS: Yes.

MYERS: There's various other items included there, but it's that which I'm most interested to ask you about. The doctor continues to deal with what can be seen in other parts of the abdomen, including where the nasogastric tube is, that's from the stomach, but also where the long line is down on the left femoral vein at the groin.

So they looked at the whole of this.

I'm going to ask you about "marked gaseous distension of the stomach and proximal small bowel".

Can we go back to the image, please, at 1996, Mr Murphy?

We know from what the radiologist has said, from the image, that there is a significant amount of gas in the stomach and the small intestine, don't we?

GIBBS: Yes.

MYERS: We can see the stomach enlarged towards the top of the picture, the oval-shaped area?

GIBBS: Yes.

MYERS: And then the small intestine, proximal small intestine, below that, the area of that?

GIBBS: Yes.

MYERS: What we don't have is any air that has entered into the large intestine, the colon, do we?

GIBBS: Not obviously, no.

MYERS: And we're perhaps all a bit more familiar with where the rectum will be and there's no air in the rectum area down the end of the gut, is there?

GIBBS: There's a very small, little dark patch just where the mark up to the north-west of the -- yes, about there (indicating).

MYERS: Yes. But whereas we can see the position of air elsewhere we don't have it running through to the rectum, do we?

GIBBS: There's much more air in the proximal small bowel and the stomach. There are little patches of air further down.

MYERS: If air is being introduced into [Baby C], causing this to happen, ordinarily you would expect air to pass through stomach, small intestine, large intestine, wouldn't you?

GIBBS: Yes.

MYERS: That hasn't happened here, has it?

GIBBS: There are small amounts of air, as I mentioned before, going down into the rectum.

MYERS: We don't have air passing from the stomach to the small intestine and filling the large intestine, do we?

GIBBS: Not as much in the large intestine, no.

MYERS: Well, the report from the consultant radiologist says:

"Air in the stomach and the small proximal small intestine", doesn't it?

GIBBS: Yes.

MYERS: And I asked you moments ago about air in the large intestine and you agreed it doesn't appear to show air in the large intestine?

GIBBS: It doesn't appear to but it's difficult to distinguish the large from the small intestine on a plain X-ray.

MYERS: And we don't have air travelling down -- apart from one little dot there, we don't have air travelling down through the rectum, do we?

GIBBS: There's not much air down there.

MYERS: So whatever possible explanations there are for that, one possible explanation for what we see is that there is some sort of blockage stopping air from moving from the small intestine to the large intestine, isn't there?

GIBBS: That's one possible explanation but air does get absorbed from the intestine, as it passes through, back into the body. The oxygen in the air gets absorbed into the intestinal wall.

MYERS: We can see a significant marked distension of the stomach and the small intestine, can't we?

GIBBS: Yes, which commonly happens in babies who have been given ventilatory support. And I think at this time [Baby C] was on CPAP.

MYERS: However it's happened, do you agree what we can see is consistent with that air not moving through to the large intestine, isn't it?

GIBBS: Not as much air moving through to the large intestine, yes.

MYERS: That's consistent with an intestinal blockage, isn't it?

GIBBS: That is a possible explanation.

MYERS: And you have explained to us that the production of dark bile and vomit, one possible explanation for that is an intestinal blockage, isn't it?

GIBBS: Repeated dark-stained vomiting, yes --

MYERS: Yes.

GIBBS: -- but [Baby C] didn't have that.

MYERS: I'm not going to repeat the cross-examination. We've been over it, Dr Gibbs.

GIBBS: He had one vomit.

MYERS: What we have is consistent with the blockage in the intestines or into the large bowel, isn't it?

GIBBS: That's one explanation of what is shown on the X-ray, but I did mention previously you need to examine the patient.

MYERS: Yes. Or even send the patient for examination with a paediatric surgeon?

GIBBS: If there was a -- if there was a high chance -- no, a reasonable chance the baby had a blocked intestine.

MYERS: And that's entirely consistent with what we see, isn't it? Help us, Dr Gibbs: that's consistent with it, isn't it?

GIBBS: That's one possibility but it's more likely that it is air bleeding blown down into his stomach and intestine because of his CPAP.

MYERS: That might be how it got there. But that doesn't make any difference to the fact it could be an intestinal blockage that prevents it from moving through does it?

GIBBS: But when there is an intestinal blockage, which you are suggesting this X-ray shows, the abdomen is usually very distended. As so far as I recall, the registrars had examined [Baby C] probably on the 11th/12th, I examined him on the 13th, he had a soft non-distended abdomen.

MYERS: If [Baby C] had been on CPAP on the 12th, which he was, and if the CPAP had been blowing air into him, which CPAP does, that could cause a distension, couldn't it?

GIBBS: Yes.

MYERS: And if the nurse dealing with it was failing to aspirate the tube or it wasn't on free drainage, that would allow the stomach to distend as the air went in, wouldn't it?

GIBBS: Yes.

MYERS: Just remind us, we've already seen from when Yvonne Griffiths was on, we don't have a record of aspirations for the period leading up to 18.00 on 12 June. That's a feature of the evidence. Right?

After 18.00, on 12 June, we have seen dark bile aspirates being measured on the clinical charts, haven't we?

GIBBS: Yes. But in intestinal obstruction usually those aspirates progressively increase and they didn't in [Baby C].

MYERS: Just dealing with the question of air and soft bellies, if [Baby C] is being aspirated or his NGT is on free drainage, after this X-ray, then that would account for his abdomen not distending in the same way?

GIBBS: I'm sorry to pause here. If the baby has an intestinal obstruction, then a normal nasogastric tube, which is very thin, would not relieve the obstruction.

MYERS: I'm not talking about the obstruction, just the extraction of air as it goes in on the CPAP, Dr Gibbs.

It will remove air going in from the CPAP if it's excessive, won't it?

GIBBS: The nasogastric tube would help to do that, yes, but air also comes up naturally up through the oesophagus.

MYERS: Yes. But if the cause of distension is air entering via CPAP; yes?

GIBBS: Yes.

MYERS: And if [Baby C] is on free drainage or his stomach is being aspirated, that might take out the air and stop CPAP belly or distension from happening; yes?

GIBBS: It would reduce CPAP belly. The nasogastric tube is very thin, about a millimetre or two across. The oesophagus in a little 800 gram baby like [Baby C] is probably a centimetre or so across. More air comes up the oesophagus than comes up the nasogastric tube.

MYERS: I want to deal with what I was asking you, I just want to ask about that, about intestinal blockage, which is something you had referred to with dark bile as a possibility.

GIBBS: Dark bile vomiting, yes.

MYERS: Which we've had. What's an volvulus, please?

GIBBS: It's when the bowel twists on itself, so almost does a corkscrew and becomes blocked.

MYERS: If the bowel is properly formed, as it moves in the way that we've seen, the structure of it, it's held in place on these -- is it the mesentery?

GIBBS: Yes.

MYERS: The mesentery is a connective tissue that holds the bits of bowel we are looking at in the right place in the abdomen, isn't it?

GIBBS: The small bowel, yes.

MYERS: The small bowel, yes. An volvulus is, did you say that's a loop or a twist in the intestine?

GIBBS: Yes, the intestine twists and you get a loop of grossly distended small intestine.

MYERS: Can there be an volvulus in the large intestine?

GIBBS: Not usually because it doesn't have this mesentery. It is fixed to the back wall of the abdomen.

MYERS: All right. You're not familiar with any of the findings from the post-mortem, are you, Dr Gibbs, of Dr Kokai?

GIBBS: I have seen the post-mortem report, yes -- I mean, I haven't looked at [Baby C]'s notes since I did my statement 5 years ago. But before that, following [Baby C]'s death, as part of trying to review what had happened, of course I looked at the coroner's report or the post-mortem report when the coroner released it, which was, I think, a couple of months after [Baby C]'s death.

MYERS: Yes. I'm not going to ask you to remember the contents of that, I'll deal with that another way. That comes some months afterwards.

In any event, if air has entered [Baby C] with sufficient pressure to create the distension that we can see on this

particular photograph, a clear explanation for the air not continuing is some sort of obstruction somewhere along the bowel, isn't it?

GIBBS: That's one possibility. That's not the explanation.

Usually, the small bowel in a volvulus is much more distended than this. There is one very distended loop of bowel which I don't see on [Baby C]'s X-ray.

MYERS: I'm just asking you to help us with why it is the air doesn't move through the whole of the intestine.

GIBBS: As I said, the air gets absorbed as it passes down the intestine because the oxygen gets absorbed out of the air.

MYERS: That's one explanation?

GIBBS: But that's not all of the air, that's only the oxygen, one-fifth of the volume of air.

MYERS: If there was -- I'll just ask this: if there had been an obstruction there, certainly no test or exploration undertaken at the Countess of Chester Hospital had been designed to look for it, had it?

GIBBS: That's correct, apart from this plain X-ray.

MYERS: And if dark bile and vomit is a red flag, potentially, for obstruction, that's something that could have been done relatively early, isn't it?

GIBBS: Once those problems had appeared, yes.

MYERS: That's a potential mistake not having done that, isn't it?

GIBBS: Well, I think we've discussed repeatedly there was not repeated bile-stained vomiting. There was one vomit recorded in [Baby C]. And bile-stained aspirates, as I said several times, can happen as part of a normal response in a baby due to regurgitating bile.

MYERS: I'm not going to repeat the questions that I've asked.

I have asked them and you've answered them. I'll move to the next thing.

[Baby C] didn't actually have his bowels open at any time during his life, did he?

GIBBS: I'm not aware of that. I'm not surprised because he hadn't been fed.

MYERS: Three days without any bowel opening, not even from any natural process with post-natal ejection, nothing happened, did it?

GIBBS: That's unusual but [Baby C] had not been fed so it doesn't stimulate -- you need to feed a baby to stimulate the bowel, to get it going well.

MYERS: Yon are saying this is a bowel that might have been able to absorb quantities of oxygen, aren't you, Dr Gibbs?

GIBBS: Yes, as any bowel can.

MYERS: On the face of it, one would have expected, within 3 days, something passing out of his bowels?

GIBBS: Often that would be the case.

MYERS: As it happens, something not passing out of his bowels in that way may be consistent with a blockage, mightn't it?

GIBBS: It might be, but as I've mentioned, [Baby C] was not being fed. So if you're not feeding a baby, you're not going to get much bowel motions.

MYERS: No, but you know that even with not feeding a baby there may be some ejection of meconium or something like that?

GIBBS: Yes.

MYERS: That didn't happen, did it?

GIBBS: I can't remember from 7 years ago, but if you say that's what the notes show, that's what the notes show, and it didn't happen.

MYERS: I am welcome to be corrected if I'm wrong but we have looked through it and tried to find something other than NBO, which is no bowel opening, and that's the only thing we see -- at least the only thing I've seen there.

I invite correction if I'm at all wrong about that.

In terms of reviewing by consultant, can we go please to slide 77.

This is the note by Dr Ogden, 9.30 in the morning on 13 June. If we scroll down it, please, Mr Murphy.

Over the page if we would, please. Just down to the bottom of the page. We can see down there, now it's the 13th, we've got a note saying that [Baby C] had been reviewed by you and he'd been given ranitidine and to:

"Hold off feeds this PM if aspirate not getting worse."

MR JUSTICE GOSS: I think that's "review", we were told.

"Reviewed this pm" --

MR MYERS: Yes, sorry, my Lord. My mistake. It is "hold off feeds" and I have missed off the "RV":

"Review this PM if aspirate not getting worse.

Start trophic feeds, if worsens..."

Is that "repeat abdominal X-ray"?

GIBBS: Yes.

MYERS: "And change antibiotics"?

GIBBS: Yes.

MYERS: He didn't go for another abdominal X-ray at this point, did he?

GIBBS: No.

MYERS: On the notes this appears to be the first review by any consultant of [Baby C]. We haven't seen an entry for a consultant before this point, Dr Gibbs. All right?

GIBBS: Is that -- I can't remember his notes from 7 years ago.

MYERS: I'm quite content to go through them just to assist you, but if no issue is being taken with it, this is the first entry we see referencing you after admission.

GIBBS: I accept that then. But as I did say, it was my usual practice to go to the neonatal unit after every ward round on the paediatric ward to discuss with the nurses and the junior doctors there if any of the babies are causing concern. I would be very surprised if I hadn't looked at [Baby C] but I obviously hadn't examined him comprehensively because I have written nothing in the notes.

MYERS: There should be some sort of note indicating a review by a consultant if there has been a thorough review, shouldn't there?

GIBBS: Yes, if I'd examined him.

MYERS: And when it's a review, like the review we have here, at this point would you look at the available information relating to [Baby C] at his cot side?

GIBBS: Yes. I wouldn't necessarily review every investigation that had been done since he was born but I would look at him at that time, yes.

MYERS: And it sometimes happens, doesn't it, that the consultant may rely on the registrar or other doctor present to write down the findings of the review; is that correct?

GIBBS: Yes.

MYERS: Does that mean that what Sally Ogden has written before the reference to you may be material that relates to your review of [Baby C] or can you not say?

GIBBS: I can't say but it would usually -- if I had disagreed with any of her findings or added to the findings, she should have made a note of that.

MYERS: Isn't it the case that if it is almost 3 days in that [Baby C] was first reviewed by a consultant, isn't that a little too long to wait for a baby who's in [Baby C]'s condition?

GIBBS: As I said, it was my normal practice to -- well, every baby has been reviewed morning and evening at the handover and that would have included [Baby C] since he was born on the Wednesday, whenever it was, the 10th.

And it's my normal practice to go to the neonatal unit after the paediatric ward rounds, so he would have been reviewed by me.

MYERS: Sometimes before this point you're saying?

GIBBS: Yes, but not examined by me.

MYERS: If he was reviewed -- to what extent would you have reviewed him if it was before this point where we can actually see an entry?

GIBBS: I would check with the nurse looking after him, and the junior doctors, that they were happy with his progress.

MYERS: So not a review in terms of you examining him yourself and going through the available information?

GIBBS: That's right. If that had happened then it should have been recorded.

MYERS: Yes, all right. That's why I asked: would it not be preferable for a baby like [Baby C] to have the benefit of a review by a senior consultant like you at a time before this?

MR JUSTICE GOSS: I think you have to be careful with the use of words. Review. He said he was reviewing but he didn't examine.

MR MYERS: I apologise.

MR JUSTICE GOSS: If that's the question, would have been examined --

MR MYERS: It is.

MR JUSTICE GOSS: -- then put that question.

MR MYERS: I will.

Wouldn't it be preferable for [Baby C] to have an examination by a consultant like you at a point before this, Dr Gibbs?

GIBBS: It would have been preferable if there'd been significant concerns about him and if he'd not been examined by any of the registrars.

MYERS: Well, I'm going to suggest to you there should have been a closer level of examination by a more specialist doctor than took place before this point for [Baby C].

GIBBS: If we had, as we -- if we had consultants to do the neonatal ward round every day as well as doing the paediatric ward round every day that would have happened, but our practice at that time at the Countess of Chester Hospital was similar to many other level 2 neonatal units in a district general hospital.

MYERS: I'm going to ask to go to slide 213, please. That's page 1924.

I just want to ask you a little bit about what happened during the resuscitation process, Dr Gibbs. If we go down to Dr Davis' note which is in the lower part of this page, the records we have indicate that the collapse, [Baby C]'s collapse, took place at 23.15.

That's in the note by Nurse Ellis. If we look here, we can see that Dr Davis has arrived at about 23.27.

Can you see that?

GIBBS: Yes.

MYERS: She says:

"23.26. Crash bleeped."

GIBBS: Yes.

MYERS: Then she arrived a minute later, so about 11 minutes after the collapse took place.

If we just carry on going down Dr Davis' note, please, to:

"Heart rate 79 on monitor. Chest compressions stopped. No HR/RR on auscultation."

Can you see that?

GIBBS: Yes.

MYERS: Is there any indication there as to whether or not or for how long [Baby C] may have been without oxygen up to that point? Is that something that can be obtained from those notes?

GIBBS: From this?

MYERS: Yes.

GIBBS: Whether he'd been administered oxygen?

MYERS: Was he receiving oxygen over the period when we're waiting for Dr Davis to get there?

GIBBS: He ought to have been, yes, but if Dr Davis wasn't there, she can't record that.

MYERS: Does it indicate whether he is receiving it at the time she got there? Let me ask you that.

GIBBS: It doesn't state that in Dr Davis' retrospective notes here. But it would be very surprising if he wasn't receiving oxygen.

MYERS: You managed to intubate [Baby C] at the first attempt, didn't you?

GIBBS: Apparently so. I can't remember the details, no.

MYERS: No one is disputing that. You were asked yesterday a little bit about the process and the purpose of intubating a baby. What you said was:

"It's more effective by ETT, endotracheal tube, than Neopuff."

GIBBS: Yes. But I also said Neopuff is still effective.

MYERS: Yes, it can be good, can't it?

GIBBS: Yes.

MYERS: But as it happens, intubation with an endotracheal tube can be more effective?

GIBBS: Yes, particularly in a prolonged resuscitation, because of the problem of blowing oxygen and air down into the stomach and distending the stomach, which squashes the chest a little.

MYERS: Right. This is quite a prolonged resuscitation, isn't it?

GIBBS: Yes. But initially, that problem of compressing the lungs from Neopuff ventilation isn't a problem at the beginning of the resuscitation. The longer it continues, the better it is, if possible, to have endotracheal intubation, which is what happened for [Baby C].

MYERS: Yes. That happened once you had arrived and you were able to do that; is that correct?

GIBBS: Yes.

MYERS: Which was -- if we go to the time you arrived, please, scroll up the page, please.

GIBBS: Yes, about 00.35 -- no, 23.35.

MYERS: 23.35. So you arrived about 20 minutes after the collapse?

GIBBS: Yes.

MYERS: All right. So there may have been some period with the Neopuff blowing air possibly into the stomach before he was intubated?

GIBBS: Yes, as well as blowing air and oxygen down into the lungs. Even if I hadn't been able to intubate [Baby C], Neopuff ventilation could have continued.

MYERS: I want to ask you some questions about the debrief notes that you were taken to yesterday. They start at slide 308, page 1927.

A general point about this process that we see recorded here. This is a debrief involving those people who were involved in the resuscitation and also Eirian Powell. Was she the ward manager?

GIBBS: Yes. But not necessarily all of the people because -- trying to get -- they are trying to coordinate everybody together on different shifts.

MYERS: This operates very much as a review by those who were involved looking through the available information to see if there's any understanding of what took place?

GIBBS: This is reviewing the actual collapse and resuscitation, not the whole of [Baby C]'s short life.

MYERS: No.

GIBBS: That was done later.

MYERS: But it does pick out certain features that are considered possibly relevant because we can see looking down there, things like CRP, which is the inflammatory marker. That's recorded, suggesting infection, isn't it?

GIBBS: Yes.

MYERS: And that's something that pre-exists before the actual collapse?

GIBBS: Yes. This wasn't a comprehensive review, but we were looking for explanations for [Baby C]'s collapse, yes.

MYERS: It's not an independent assessment where somebody else has come in to work out or look at all the available information of what happened, is it?

GIBBS: No. It's a debrief of the actual traumatic event of [Baby C]'s collapse and failed resuscitation.

MYERS: And it's created by a number of those, largely, who were involved in that process?

GIBBS: Yes.

MYERS: Is this debrief always included as part of the clinical notes when a debrief does take place?

GIBBS: It should be. When I say it should be, by the time we got people together for this debrief it's just over 2 weeks after [Baby C]'s death and sometimes the notes have disappeared around the hospital, off to the pathologist for the post-mortem, or elsewhere and so sometimes notes aren't available. So I'm not sure it always does but it ought to get recorded in the notes.

MYERS: Does it to some extent, this debrief process, also reflect the fact that at a later date there may be other professionals who go through what took place to see what happened, and by that I mean, for instance, lawyers at an inquest or a coroner?

GIBBS: That's not the purpose of debrief at all, no. I don't think we consider -- I mean, I'm aware, and all doctors are aware that anything you write in the medical notes may end up being examined by lawyers.

MYERS: Yes.

GIBBS: But the debrief is to consider what happened at the resuscitation, could it have been done better, and what went well, which sounds bizarre when you have a dead baby, but did we do it properly.

MYERS: So also in mind would be the question that it may be looked at, for instance, were there ever to be any legal action that was brought as a consequence of what happened? That's in the mind of those people performing this debrief, is it, Dr Gibbs?

GIBBS: It never has been for me in debriefing, not the debrief, no.

MYERS: But you're aware that's a possibility?

GIBBS: Anything that's written in the medical notes, but not particularly the debrief. It's for the people involved to consider: did we do it right?

MYERS: Anything that's in the notes could feature in some later review? That is something you're aware of?

GIBBS: Yes, everything in the notes. But the debrief is more, did we do it right, so for the next time, for another patient, should we do anything differently. It's not for the purpose of the lawyers.

MYERS: We've got the notes that you make under "Discussed the events leading up to [Baby C]'s arrest". Can you see?

"Did not seem unwell. Active, kept pulling out NG tubes. CRP and..."

What is that?

GIBBS: "WCC", white cell count.

MYERS: "... and WCC suggested infection."

GIBBS: Yes.

MYERS: "Was" --

GIBBS: "On antibiotics". The antibiotic word is on the next line down, sorry about that, with a little line around it.

MYERS: Looking through it, as it happens, it doesn't make any reference anywhere there, does it, to the production of black bile consistently over a period of 24 hours before the collapse, does it?

GIBBS: That's correct.

MYERS: And whether it's just the one reference or not, there's no reference to a vomit of black bile at any point before the collapse, is there?

GIBBS: That's correct.

MYERS: Is this a place where you would review how staffing had been arranged at the time or is it not a place where you would have reviewed that?

GIBBS: Not usually.

MR MYERS: Right, thank you, Dr Gibbs.

Re-examination by MR ASTBURY

MR ASTBURY: My Lord, three matters, please, in re-examination.

Dr Gibbs, you were asked about your ongoing application for at least one additional consultant --

GIBBS: Yes.

ASTBURY: -- at the time of these events. And you mentioned in answer to my learned friend the European Working Hours Directive.

GIBBS: Yes.

ASTBURY: Just explain to us, please, how that tied into the application that you were making.

GIBBS: Traditionally, in medicine, doctors work very long hours and it is better for patient care if doctors aren't working so many long hours and so stressed. The UK was out of line with many other European countries in the hours that doctors were working and legislation came in that doctors had to move towards working no more, on average, than a 48-hour week.

ASTBURY: Was that a particular, do you know, problem for the Countess of Chester or your department or was that a wider ranging problem at the time?

GIBBS: I'm well aware from regular contact with our paediatric college that it was a widespread problem in paediatrics everywhere.

ASTBURY: Did the number of consultants available to the neonatal unit at that time in your view affect the standard of care that those children received?

GIBBS: No. Oh... (Pause). But it would be better if a consultant was available more regularly every day to undertake comprehensive examinations and reviews of babies.

ASTBURY: Right.

GIBBS: But that was the situation in most other units that I'm aware of and that's not just from personal contact, it's from what our college is reporting or was reporting at that time.

ASTBURY: You were asked a number of times about bilious vomiting --

GIBBS: Yes.

ASTBURY: -- and the significance of bilious vomiting. You have made the point that it's recorded once and that it didn't continue.

GIBBS: And the aspirates didn't increase in volume. In fact, that last page we looked after, half a millilitre every few hours.

ASTBURY: Relatively speaking, is that a significant amount, half a millilitre?

GIBBS: No. And also, in that last entry there, where Dr Ogden writes down I've reviewed the baby, in the entry above she mentioned on the review of the baby that he had nice soft abdomen, not distended. So if bilious vomiting, which only vomited once, was recorded with a distended abdomen would cause some concern and require further investigation.

ASTBURY: You've pre-empted in a way my question. You were being asked about whether you'd consulted a surgeon and you mentioned that an examination was an important consideration at that stage of the process.

GIBBS: Yes.

ASTBURY: What would you be hoping for your registrar to find if it's not an alarming concern?

GIBBS: That the abdomen was soft, didn't cause any distress when palpated for [Baby C], and wasn't discoloured. And that overall, his observations were satisfactory.

ASTBURY: Okay. So it's not taken in isolation?

GIBBS: Exactly, yes, I kept saying we don't just look at the X-ray or the aspirates. It's looking at the baby as well and [Baby C] wasn't causing us concern at that stage.

ASTBURY: And the concern in respect of these aspirates or the vomiting, as it's been put, is I think the idea that there is an obstruction in the bowel and not apparent on the X-ray that you've been shown.

MR JUSTICE GOSS: It's not the idea, it's the suggestion there may have been an obstruction.

MR ASTBURY: I'll put that more carefully. The suggestion is that's a possibility.

In your experience is that the type of thing that would be found on a post-mortem examination?

GIBBS: An intestinal obstruction?

ASTBURY: Yes.

GIBBS: Yes. That's not the way you diagnose it, post-mortem.

Had it been there, it should be found on post-mortem.

You hope to diagnose that in life and treat it appropriately.

ASTBURY: Of course, of course, but that's what you'd have expected with your clinical experience?

GIBBS: Yes.

MR ASTBURY: Thank you. I have no more questions.

Does my Lord have any questions?

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

Thank you. Dr Gibbs. That's it at this stage.

That completes your evidence.

As I indicated and you confirmed you knew yesterday, you're coming back later on during the trial. But please remember what I said about not talking to anyone about anything to do with this case, in particular the evidence that you have given or may be going to give at some time in the future. Thank you very much indeed.

(The witness withdrew)

MR JUSTICE GOSS: It's convenient to have our break now, members of the jury. We'll have a 10-minute break and resume again at just before midday, please. Thank you very much.

(In the absence of the jury)

MR JUSTICE GOSS: I apologise, Mr Johnson, if I can address everyone through you, for not raising this, finishing early on Friday before I announced to the jury that we would be finishing earlier. But I hope it won't cause any difficulty. And the 10 o'clock start, because it did seem to work well, that. I don't want to do it every day because I know there are other considerations.

MR MYERS: May I just explain one issue with the 10 o'clock start, my Lord?

MR JUSTICE GOSS: Yes.

MR MYERS: It did work the other day and we made all efforts to ensure it did. It does create some issues for us for this reason. First of all, there are some matters to deal with with the defendant before we begin. We will try to accommodate that as best we can.

But also, at about 10 o'clock, the defendant has had the benefit of a visit from the nurse who's attended or the worker who's attended. That's when that happens.

We don't want to interfere with the smooth running of the case --

MR JUSTICE GOSS: Is that every day?

MR MYERS: Yes, it is every day. So starting at 10 has a knock-on effect both in terms of that meeting, which has proved to be important and very helpful, and also our ability to deal with the instructions we need to take from the defendant. We can make efforts to try and work around it and we did, but it increases the difficulty of that and so it's important I explain, we would much prefer the 10.30 start, although we recognise gaining half an hour is helpful. But it does have a consequence to us along with all the other tasks that we deal with if we start at 10 rather than 10.30.

MR JUSTICE GOSS: Is the nurse not available at any other time then?

MR MYERS: We can make enquiries to see.

MR JUSTICE GOSS: And could that be accommodated at some other time or not? I don't know, I'm just enquiring.

MR MYERS: Let me make enquiries.

MR JUSTICE GOSS: I was thinking if we had a 20-minute break at about 11.30 or something, if the nurse could do it then. If not, we'll have a 10.30 start.

MR MYERS: I know the nurse has other commitments in the building and that's why she's here.

MR JUSTICE GOSS: I'll leave it with you. I will remain flexible --

MR MYERS: Thank you.

MR JUSTICE GOSS: -- but I would like to try and have a fullish day. See what you can do.

MR MYERS: We'll see, my Lord.

MR JUSTICE GOSS: Thank you very much.

(11.56 am)

(A short break)

(12.06 pm)

(In the presence of the jury)

MR JUSTICE GOSS: The note relates to one juror and a request. It will be -- that request will be dealt with. Thank you.

Witness statement of DR ANDREW BRUNTON (read)

MR DRIVER: My Lord, if I may, I would like to read statements from two more doctors and a nurse who were on duty at the relevant period. We're going a little out of sequence because, as I'm sure everyone will appreciate, we have prioritised the calling of witnesses rather than the reading of statements.

The first statement was made by Dr Andrew Brunton on 10 April 2018. He confirmed that he is a fully registered medical practitioner with the General Medical Council and an ordinary member of the Royal College of Paediatrics and Child Health since February 2014:

"I moved to the Mersey Deanery in August 2011 as part of my paediatric training. In February 2015 I returned to the Countess of Chester Hospital for the second time and remained there until July 2015. At this time I was a specialist trainee, year 4, in paediatrics and my mentor or educational supervisor was [Dr C].

"I worked a mixture of day and night shifts during this time."

Dr Brunton's statement includes reference to other babies, and you'll hear from Dr Brunton in relation to those babies in due course, but at page 7 of 8 of his statement he then turns to [Baby C]. I wonder if I could ask Mr Murphy to put up slide 9 of 135, please.

You'll see they are clinical notes of Dr Brunton.

If we go to the original. You'll see his name beneath his signature on the bottom right of our screen and I'll return to his statement as we have that on screen:

"I first met [Baby C] on 10 June 2015. I was the registrar on duty that day. I was asked by Dr Ogden to discuss [Baby C] with the Liverpool Women's Hospital (level 3 neonatal unit) as he was born prematurely, intubated, and that his birth weight was only 800 grams.

"I discussed [Baby C]'s clinical situation with consultant Dr Bill Yoxall, who was happy for [Baby C] to remain at the Countess of Chester Hospital but for the decision to be reviewed if his condition was to change."

You'll see that note to the upper right part of Dr Brunton's record.

He goes on to say:

"I inserted an umbilical intravenous catheter (UVC) using an aseptic technique to help minimise any risk of infection. The plan was to extubate and the breathing tube was removed. An abdominal and chest X-ray was then carried out to ensure the UVC was in the correct position. Initially it was sitting high and it was pulled back by 3 centimetres."

All of which, you will have noted, I'm sure, was reflected in the notes on screen.

I wonder, please, Mr Murphy, if we could go to J1915. Sorry, Mr Murphy, I know you're doing as I requested, but could you just scroll down this page first, please, to see if there's anything additional on this page.

Members of the jury, you see at the bottom of the page there's a note by a doctor by the name of Chowdhury. Returning to Dr Brunton's statement:

"At 18.00 hours on 10 June 2015, Dr Chowdhury discussed with me the need to start antibiotics as he had required breathing support initially.

I suggested that blood tests and cultures should be carried out and for him to be started on antibiotic, which were benzylpenicillin and gentamicin."

You'll have seen a corresponding note from Dr Chowdhury there.

Now please, Mr Murphy, could we go to exhibit reference J1915 and focus on Dr Brunton's note towards the bottom of the page. Dr Brunton's statement says:

"The following day, 11 June 2015, at 12.45 pm, I inserted a right radial arterial line in the right wrist, but due to fingers going dusky and white, this line was immediately removed and Dr Saladi suggested that no further attempts should be made."

He then just goes on to confirm that he was not on duty at the time of [Baby C]'s subsequent collapse.

So that's the relevant parts of the statement of Dr Brunton and his corresponding entries and the clinical records.

Witness statement of BERNADETTE BUTTERWORTH (read)

MR DRIVER: Moving to Nurse Bernadette Butterworth and her statement, dated 27 June 2020, which reads:

"I have been asked about my involvement in the care of a baby by the name of [Baby C], who was born at the hospital on 10 June 2015. I have been given the opportunity to review his medical records regarding [Baby C]'s UVC having come out on the second shift that I cared for him. I do recall this as it is not a regular occurrence. I remember that I went in and found [Baby C]'s bed damp. Then I noticed that the UVC had come out."

She states:

"I can see from the records that I was [Baby C]'s designated nurse on two night shifts: the 10th into 11 June 2015 and 11 June into 12 June 2015. The night shifts start at 7.30 pm and end at 8 am the next morning."

Mr Murphy, could you please put up slide 15? It's a tile of general description that states that medical records indicate that [Baby C] continued to receive care from 20.50 on 10 June. So could I ask you, please, Mr Murphy, to produce, from the additional section, exhibit J1935? Thank you.

I think the relevant entry is towards the bottom left. You'll see the initials BB and I'm reading the statement of Bernadette Butterworth. So she has just stated that she worked the night shift of the 10th into 11 June. She states:

"On the first shift that I cared for [Baby C] I took over from Nurse Yvonne Farmer at 01.00 hours on 11 June 2015."

She says:

"I have written my first set of notes at 06.40 of that morning and documented that all safety checks were completed and satisfactory."

Thank you. That's on the same page. We can see that timed at 06.40. Her statement now that I will read out will closely reflect that which is on the screen, so I'll read from the statement. If you, members of the jury, would be good enough to follow it on screen. She says:

"[Baby C] continued to be nursed on nasal CPAP with pressures approximately around 5.5 and a flow of 9.

[Baby C] was tachypnoeic, so his heart rate had been raised throughout the shift. His temperature had been between 36.9 and 37.4.

"Sometimes if babies have a raised temperature, it can affect their heart rate. I have noted that I reduced the incubator temperature accordingly. [Baby C] continued to have TPN, lipids and dextrose running via a UVC and the pressure was satisfactory. I have documented that there had been slight oozing around the umbilicus, which occurs sometimes, and I put a substance on it called alginate, which stops any oozing, although my notes state it was still evident.

"I have recorded that [Baby C] was unsettled at times and a containment hold was applied with good effect.

This is where you place your hands on a baby in [a certain position] and sometimes it will settle them down.

"[Baby C] was passing urine, approximately 6.5 millilitres per kilo per hour at that time, and had required up to 37% oxygen to maintain saturations."

Then in the below paragraph, you'll see the time of 08.27, and Nurse Butterworth states:

"At 08.27 that morning I made a further entry into [Baby C]'s medical records to say that the UVC continued to ooze and that, whilst checking the UVC during observations, part of the nappy that was next to the UVC was wet. I have recorded that I was certain this was urine and that I checked the end, which was satisfactory. I tied an umbilicus cord on the stump and redressed the gauze.

"It is documented that the repeat gas was good, but lactate was raised to 7.3. Dr Rylance was informed and had reviewed [Baby C] and prescribed 10ml per kilo saline bolus. The note also states:

"'Will discuss increasing feeds due to a large urine output. Continue to observe oozing.'

"From these initial notes I can see that [Baby C] was unsettled at times. He was tachypnoeic and was on CPAP. He was requiring respiratory support so he was obviously poorly at that time. He was on antibiotics, which he would have been already on, but I don't know if they had carried on. Babies usually have them for 36 hours but if the blood results had indicated that [Baby C] was septic, he would have stayed on them for longer.

"I would say that [Baby C] was the same at the end of that first shift as he was at the beginning. The umbilicus continued to ooze slightly. I had tied another umbilicus cord around to help it and redressed it. The repeat gas was good but the lactate was raised.

The records show that I handed over the care of [Baby C] at the end of my shift on the morning of 11 June 2015 Nurse Jo Williams, who took over care at 8 am."

Mr Murphy, could you please put up exhibit J1940, which will record Nurse Butterworth's entries for her shift, the night shift on the next day. That is the shift going from 11 into 12 June 2015.

Nurse Butterworth states:

"I was the designated nurse for [Baby C] again on the next night shift from the 11th to 12 June 2015. I can see from the records that I took handover from Nurse Laura Eagles who had taken over from Jo Williams earlier in the day. I have documented that care was taken over at 20.00 hours and that all safety checks were completed and satisfactory. [Baby C] continued to be nursed on nasal CPAP with pressures between 4 and 6 and a flow of 9.

"He required between 31% and 37% oxygen to maintain his saturations. He remained tachy overnight and recession remained evident. Repeat CBG at 11 o'clock was satisfactory, lactate was satisfactory at 2.8, and glucose had risen to 12.8. Sometimes this can happen if babies are stressed.

"My notes state:

"'Dr Rylance informed and asked for repeat glucose with morning gent level. Informed creatine is slightly raised. Dr Rylance happy for the morning gent dose to be given without waiting for the results. Whilst obtaining morning bloods, UVC was found to be out and damp, so it was thought had not been out long, was in situ with previous observations. Repeat gas good, as is lactate, but glucose has dipped to 1.7. Dr Rylance informed. Plan to transfer on peripheral cannula and repeat glucose at 8 am, not for fluid bolus at this time. Cap refill time satisfactory. Repeat glucose.

Had come back up to 4.9. Dr Rylance informed. UVC had been slightly oozing since 11 June 2015 as previously documented. Fluids remain at 120. TPN, lipids and 10% dextrose running via UVC.'.

"The lipids had been stopped and fluids transferred on to peripheral cannula because you can't run lipids through a peripheral as it can damage the vein. I have also noted:

"'Abdo appears distended, soft to firm, not hard.

Bowels opened...'"

Which entry is subsequently corrected, Mr Myers accurately points out to me. I'll come to that. Well, I'll go to that now. She says -- in a subsequent statement she says:

"Further [to this statement I am reading], I have said that I noted in the medical records:

"'Abdo appears distended, soft to firm, not hard, bowels opened, minimal clear aspirates.'.

"On checking the medical records, I confirm this is an error. This paragraph of my statement should read:

"'Abdo appears distended, soft to firm, not hard, bowels [emphasis] not opened, minimal clear aspirates.'"

MR MYERS: She says "not had bowels opened", it doesn't say "not hard, bowels opened". We can see that from the note actually, from four or five lines up, so we can see that for sure.

MR DRIVER: Thank you:

"'Minimal clear aspirates. Passing urine currently at 4.3ml/kg/hour. Phototherapy remains in situ. SBRs are still not under 50. Has been quite unsettled at times and has required an increase in oxygen on handling as he is not tolerating being handled all of the time. Mum had visited with expressed breast milk.'

"I can see from the records that [Baby C] was in humidity, which tells me he was obviously below 32 weeks, and that was at 75."

Ie the humidity was at 75:

"I have documented the time that I found the UVC to be out. It was at the time..."

Sorry:

"I haven't documented the time I found the UVC to be out [my apologies] but it was at the time that I took the morning bloods on 12 June 2015. I have made an entry in the nursing records at 9 am."

This is on the top left corner of J1940. Go to the left side of the page, please, Mr Murphy. I'm looking for a note timed at 9 am.

(Pause)

I'll read the statement in any event and perhaps we'll locate this note in a moment.

The statement reads:

"I have made the entry in the nursing notes at 9 am that morning..."

That is to say that she'd found the UVC to be out:

"... so I must have been late going off as we finish at 8 am. I have it documented that Dr Rylance planned to transfer on to a peripheral cannula and repeat glucose at 8 am, so it would have been before 8 am. It could have been at 6 or 7 am as we would usually do the bloods in the morning but I am unable to give an exact time and I am only surmising.

"Unless we are caught up with something else we do hourly observations during which we check any lines the baby has in and check all the pressures. Therefore whatever time I found the UVC out, the hour before it would have been fine.

"If the UVC had been out for longer I would have noticed it when I checked the hour before. And as the bed was only damp the chances are it had not been out for long because the longer it was out, the more wet the bed would have been as the fluids would continue running. The glucose had dropped slightly but we repeated it an hour later once the fluids had gone back on and it had come back up. All we did after finding the UVC had come out was to transfer the fluids on to the peripheral cannula.

"The records from that time state fluids remain at 120ml per kg per day and that [Baby C] was on Babiven Start-up, which is a TPN. He was also having 10% dextrose and was on lipids, which would have gone through the UVC.

"If it had been out for ages you would worry about him having those fluids, but with it only being out for up to an hour, there was nothing to be concerned about really. We just checked the repeat glucose.

"The UVC was going into one of his veins in his umbilicus, so there was nothing else. It would have been different if there

were an arterial line because you would have been worried about the baby bleeding out, but not with a UVC.

"[Baby C] must have had a peripheral cannula in as I have not documented that it had been re-sited or anything like that. Sometimes babies do have a peripheral cannula in as well. This is just used for antibiotics and things. I haven't documented anything about one being sited so I'm presuming that the peripheral cannula was already in.

"The UVCs don't come out regularly. Most of the time it is stitched in and quite secure, but sometimes if the babies are kicking or they get the line in between their toes and they are stretching and kicking, it can pull out and sometimes they do come out.

Although it doesn't happen all the time, it does happen.

"I think [Baby C] was quite unsettled at times and was kicking. I can see from the records that I gave some containment holds as he was quite agitated at times. If babies are kicking about and fractious, sometimes they can catch on to a line and that could be the reason the UVC came out.

"I think [Baby C] was pretty much the same over the course of my two shifts. He remained unsettled and on CPAP. The only thing that I have mentioned in the records is that his lactate was reduced and that he was desaturating and requiring a bit more oxygen on handling, which means he was not tolerating being handled on the second night. Sometimes this can happen if babies are septic.

"I have also mentioned that [Baby C]'s abdomen appeared distended, which is something else that we look at with new babies, but it was soft to firm, so although it is not firm, it is soft to firm. One of the things that we always look out for in premature babies is something called NEC, necrotising enterocolitis, which is when the gut becomes necrotic for one reason or another. We always check whether the tummy is soft and whether it is distended.

"If the tummy were distended we would look at whether it was soft and whether there were any bowel loops or anything else to concern us. Sometimes you can see bowel loops through the skin. It can look loopy in the tummy, but I have not documented that. If I had seen anything like that I would have documented it, but I have only documented 'soft to firm'.

"Something that we always keep an eye on is the abdomen. Sometimes babies' tummies can become distended when they are on

CPAP. The tummy can blow up as the CPAP can put air in and sometimes we refer to a blown-up tummy as CPAP tummy.

"The records show that [Baby C]'s bowels had [this is the same point as before, she say opened but means not opened]. He had minimal clear aspirates so I wasn't saying he had mucky aspirates. If we were querying NEC, we would be looking at aspirates and whether they were green but I have said that [Baby C] had clear asps.

"[Baby C] had a nasogastric tube, and we would have been checking this every couple of hours. I don't think [Baby C] was feeding at the time as I have not documented any enteral feeds and he was receiving intravenous fluids, so we would have aspirated to see if he had any air in his tummy as well. This is not just with [Baby C], but with every baby we are looking at tummies, whether they've opened their bowels, what their aspirates are like, especially a premature baby. It is something that we all do. If we were concerned we would ask for a review and I have not mentioned that I have asked for this.

"At the end of that shift on the morning of 12 June 2015, I handed over care of [Baby C] to Yvonne Griffiths again and I didn't have any further involvement in his care."

Then she states she recalls that [Baby C] was in nursery 1 on the nights she cared for him and that he was in the first incubator as you walk into nursery 1 via the second door by the nursing station and she cannot recall whether there were any other babies in the nursery over those two nights.

Witness statement of DR CATHERINE COLLINS (read)

MR DRIVER: The final statement to be read at this point, my Lord, is that of Dr Catherine Collins, dated 15 December 2021. She provides medical qualifications.

She says:

"At the request of Cheshire Police I have been asked to review an extract of clinical notes made by myself back in June 2015. At that time I was in my second year of doctor training (F) working within the paediatric department at the Countess of Chester Hospital."

Mr Murphy, if you could kindly put up exhibit J1919, which again is in the additional material.

If we can look at the lower part of that page in particular, please. We see the name Collins next to the time and date.

Returning to the statement she says:

"the notes, which consist of two pages in total, relate to a patient by the name of [Baby C], born on 10 June 2015. I do not remember [Baby C] and can only comment from and rely on the notes made at the material time.

"I believe this was my last entry in the baby's notes. I cannot recall how long this baby was under the care of the neonatal unit. Having examined the notes in question I can state the following."

And this reflects what's on screen, members of the jury:

"At 14.15 hours on 12 June 2015, I can see that I made a handwritten entry titled 'F Collins' followed by a short sentence 'asked to examine baby'.

"I do not recall the examination itself or the reason why it was requested. As junior medical staff we would normally be asked to examine babies by the nursing staff caring for the baby at the time. This would be documented in the nursing notes at the time of request.

"The notes record that [Baby C] was asleep in his incubator. His temperature was recorded at 36.8, with a respiratory rate (RR) of 60 per minute, and a heart rate (HR) of 140 beats per minute.

"The pressure on the CPAP, continuous positive airway pressure, machine was 4 to 5 centimetres H2O at 40% oxygen. The 'AF soft' [that's to the left by the margin, members of the jury, halfway down, close to the diagrams] note meant that his anterior fontanelle, the soft part of a baby's skull, was soft. The 'fem R tick, L tick' denotes that the right and left femoral pulses were present.

"There is an illustrative drawing of the lungs with an arrow present, meaning a clear chest on auscultation [listening to the] chest. The picture to the right shows the abdomen with an arrow and the words 'soft'.

This meant that the abdomen was soft and that no abnormalities were detected.

"The notes conclude with a comment to continue the care plan at 3 pm along with a recommendation for a lumbar puncture (LP). This procedure would be carried out by a senior member of the team. This is normally done in the investigation of an unwell neonate, looking for a possible infection. SBR, the letters, refer to serum bilirubin, the measure for jaundice in babies.

Gas is a venous blood gas to check the baby is getting sufficient respiratory support [that's oxygen]. And U&E, the letters, refer to urea and electrolytes (kidney function test). This is a test usually completed by nursing staff with a senior member of medical staff reviewing the results.

"I have also been asked whether I examined [Baby C] as a result of the X-ray review carried out by Dr Gail Beech timed at 12.55 the same day where Dr Beech makes note of a large stomach bubble and a gaseous bowel. These comments may have been the reason for the examination, but as I haven't documented this fact, I cannot say that this was definitely the case."

I think the Dr Beech notes that Dr Collins was just referring to are on the higher part of the same page.

There we can see the continuous note. So Dr Collins was asked, effectively, whether her examination was a consequence of this X-ray examination and Dr Collins says she cannot say that this was definitely the case.

That concludes Dr Collins' statement.

Mr Johnson is directing me to the aspect of Nurse Butterworth's notes that we struggled to bring up on screen. They are at J1940.

MR JUSTICE GOSS: Left-hand side?

MR DRIVER: Top left. Everybody else was there except for me.

MR JUSTICE GOSS: It was on the pads if you listened, as you were listening and reading, you could pick it up. It wasn't the same order, but it was there.

MR DRIVER: Thank you. That concludes this part of the evidence, my Lord.

MR JUSTICE GOSS: Thank you.

MR JOHNSON: Moving on to the paediatricians.

MR JUSTICE GOSS: Shall we make a start?

MR JOHNSON: Yes, absolutely. Dr Dewi Evans, please.

MR JUSTICE GOSS: So now we are going to hear from Dr Evans in relation to this baby, his opinion in relation to this baby, as we did before with [Babies A & B].

DR DEWI EVANS (recalled)

Examination-in-chief by MR JOHNSON

MR JOHNSON: Would you just confirm your name for the record, please?

EVANS: It's Dr Dewi Evans.

JOHNSON: Thank you, Dr Evans. Were you asked, as with the previous cases of which you have told this jury, to consider the circumstances surrounding the collapse and death of [Baby C]?

EVANS: I was, yes.

JOHNSON: Thank you. And so far as your written reports are concerned, I'd just like to list them, please, for the sake of the record. Was your initial screening report dated 7 November 2017?

EVANS: That is correct.

JOHNSON: Did you then write a full report, dated 31 May 2018?

EVANS: That is correct.

JOHNSON: A supplemental report dealing with issues concerning [Baby C]'s platelet count and pneumonia on 26 March 2019?

EVANS: Yes.

JOHNSON: A second supplemental report, dated 18 October 2020, dealing with CPAP and its connection with the distension of a neonate's belly?

EVANS: Yes, 8 October.

JOHNSON: 8 October, sorry, I beg your pardon.

EVANS: Yes.

JOHNSON: 19 October 2021, dealing with the stomach bubble, as it's been referred to, and the interrelationship with CPAP?

EVANS: Yes.

JOHNSON: A report, which is undated, concerning or at least in the version we've got, just dealing with the medical records?

EVANS: Yes.

JOHNSON: Yet another report, of 29 October 2021, dealing with the platelet count again?

EVANS: Yes. The previous one was 21 October.

JOHNSON: The version we have isn't dated. Then finally, was there a report dated 11 September 2022 --

EVANS: Yes.

JOHNSON: -- concerning the admission forms which had been omitted from the material that you had previously been sent --

EVANS: Yes.

JOHNSON: -- by the police.

EVANS: Yes.

JOHNSON: Thank you very much.

Now, I'd just like to deal with the material that you have received then. Looking at your initial screening reports at paragraph 3, were you sent records from Alder Hey --

EVANS: I was.

JOHNSON: -- concerning [Baby C], which included images taken after his death and records relating to the autopsy?

EVANS: I did.

JOHNSON: Were you also sent records from the Countess of Chester, which included the radiographs or X-rays?

EVANS: Yes.

JOHNSON: Thank you. I think so far as what I'll call your substantive report of 31 May 2018 -- you reproduced again at paragraph 3 that list of documents?

EVANS: I have, yes.

JOHNSON: Thank you. We've heard a lot of evidence over the last few days concerning [Baby C]'s progress from his birth on 10 June to his death on that final night shift. In general terms, first of all, having reviewed the records and now having had the benefit of hearing the evidence of the treating physicians and nursing staff, what conclusions have you drawn as to [Baby C]'s general state of health?

EVANS: Well, he was a vulnerable baby because he was preterm, 30 weeks' gestation, and on top of that he had IUGR, in other words his growth was retarded, so he was 800 grams at birth, whereas the average weight for a 30-weeker is about 1,400 grams. So therefore he had two significant risk factors in relation to his status at the time of his birth. This would mean admission to a neonatal unit and that he would need careful management, both with regard to nursing care, medical care and the monitoring that goes with all of that, over a period of many weeks.

And during that time there would be -- he was at risk for a number of complications that we associated with prematurity.

JOHNSON: Yes. Can you give us in a list the relevant risks, so not every conceivable risk, Dr Evans, but so far as his presentation was concerned?

EVANS: Right. The commonest risk is to do with breathing, with his respiratory system, and lots of premature babies require support with breathing. So therefore there was a breathing problem.

The second big risk related to feeding because the gastrointestinal tract is not necessarily geared to accept milk. Therefore there are feeding difficulties, which is why babies require intravenous nutrition.

The third concern related to infection and the infection could be respiratory, in other words a lung infection, or it could be an infection somewhere else.

The fourth complication would be -- sorry, and then in relation to the feeding difficulties, given his growth retardation he was particularly at risk from this condition we've heard a lot about called NEC, necrotising enterocolitis.

The fourth concern would be metabolic and, in particular, concerns that his glucose values would stay within normal and also he was at risk of jaundice, in other words his bilirubin value was likely to cause concerns. So those were the main concerns as he would have arrived on the neonatal unit.

JOHNSON: All right. I'd like to deal with those four headings of concern one by one, if we may, and look at [Baby C]'s progress from birth to collapse.

So dealing first with the issue of breathing, we've heard all the records and the witnesses' accounts of [Baby C]'s presentation so far as breathing was concerned over the period of his whole life.

EVANS: Yes.

JOHNSON: And without repeating the detail of the evidence we have heard, Dr Evans, could you tell us your interpretation of the factual evidence that we have heard?

EVANS: Yes. His breathing situation stabilised over a number of days and, by that, I mean two main things. Firstly, the amount of respiratory support that he required continued to decrease, so we've heard about he was on CPAP, and then in the last 12 hours of his life he did not require CPAP, he required a system called Optiflow, which is basically nasal prongs to facilitate giving oxygen to babies.

So therefore that was a very, very encouraging sign that he was able to cope, breathing more or less on his own, and the other good sign was that the percentage of oxygen that he required continued to decrease. So air is 21% oxygen and soon after birth he was needing 40% oxygen, which is, you know, very common. And by the time or just before his collapse, his oxygen requirement was 25%, which is very low.

So therefore, those two markers were indicative of good markers of progress.

JOHNSON: Additionally to the support that [Baby C] was receiving, both in the form of the mechanics by which assistance was delivered and in the sense of the amount of oxygen or supplemental oxygen he was receiving, the jury has been told that he had two periods, of about 2 hours each, of skin-to-skin contact with his parents during which time, other than being wafted from time to time with oxygen, he was receiving no breathing support at all. What's the relevance of that, please?

EVANS: That's even a better sign. In other words he was coping without any oxygen at all. You wouldn't dream of doing that with a baby whose respiratory condition was unstable or concerning.

MR MYERS: Yes, thank you. I'm going to move on to the feeding issue now, my Lord. It may be that that's a convenient point.

MR JUSTICE GOSS: That's a good point to break.

Dr Evans, ready to recommence at 2.05, please.

EVANS: Yes, my Lord.

MR JUSTICE GOSS: Thank you very much.

2.05 then, please, members of the jury.

(In the absence of the jury)

MR JUSTICE GOSS: The note I received was just an administrative matter, it didn't relate to the evidence at all, it was just an administrative matter so far as one juror was concerned.

(1.00 pm)

(The short adjournment)

(2.05 pm)

MR JUSTICE GOSS: Jury in, please.

(In the presence of the jury)

MR JOHNSON: Dr Evans, you gave us, just before the short adjournment, four headings of realistic risks so far as [Baby C]'s presentation was concerned. You have dealt with the issue of breathing. The second heading you gave us was feeding.

EVANS: Yes.

JOHNSON: Could you give us, please, an explanation as to what the risks were so far as that was concerned?

EVANS: Yes. First of all, all babies who are 10 weeks premature require nasogastric feeding. Their sucking reflex and their swallowing reflex is insufficiently developed, therefore they need what we call enteral feeding, milk from the -- through the nasogastric tube into the stomach.

If they cannot tolerate that or there's a risk to giving oral feeds too early, then it is clinical practice to give what we call TPN, total parenteral feeding, basically giving all the nutrition intravenously. Given that [Baby C] was at risk of NEC, necrotising enterocolitis, the clinical team chose to feed him intravenously, which was the right thing to do.

So you then need to monitor the baby very carefully to make sure that he does not develop any gastrointestinal problems, particularly NEC, and one thing that is done routinely is that a nurse will aspirate the nasogastric tube to ensure that there's nothing in the stomach. And by nothing, I mean usually bile. If there's bile in the stomach then it could indicate that there is some -- that there is necrotising enterocolitis beginning to form or that there might be some kind of obstruction, you know, in the bowel.

But it's not just a matter of nasogastric aspirations, you're also keeping a careful eye on the baby, particularly its

abdomen. Therefore we've heard about abdomens being examined and being soft, which is normal, or distended, which means they're full of something, usually air. And also you look at the overall well-being of the baby because obviously if there is a serious abdominal condition, then that's going to impact on the whole baby and, as we've heard previously, the heart rate will increase, the oxygen requirement would increase, the baby may have irregular breathing. These are all the features you look for in a premature baby who may be sickening for some kind of problem.

JOHNSON: All right. I just want to break that down into three headings, if I may. I'll deal with the aspirates first, then the abdomen, then the presentation.

Just dealing with the aspirates, the jury has heard evidence given and repeated in questioning to Dr Gibbs about several nursing notes.

EVANS: Yes.

JOHNSON: Both in the typed notes and on the manuscript -- I'll call them feeding charts, although we know [Baby C] wasn't being fed until the very end. What do you have to say about those notes, first of all, in terms of what they actually show?

EVANS: Right. So far as the clinical notes taken by the doctors, they were very aware of the need to keep a careful eye on his abdomen and there are a number of entries saying "abdomen soft" or "abdomen soft but slightly distended". And given that he was on CPAP until the last 12 hours of his life, those are matters that you keep an eye on but it would not be a cause for concern. So that's the abdomen -- sorry, that's the clinical examination.

JOHNSON: Yes.

EVANS: Aspirates?

JOHNSON: It's the aspirates I was interested in.

EVANS: Sorry.

JOHNSON: It's all right. Let's just deal with it. It's the colour black, first of all. Can we start with this from this position? What colour is bile first of all?

EVANS: Bile is green. It's dark green.

JOHNSON: Okay. We have repeated descriptions of black bile or black fluid, however it's described in the notes. What conclusions do you draw from those descriptions, first of all?

EVANS: There's one entry of aspirating 2ml of black fluid from the nurses. Not black bile, it's black fluid. I don't know what it was, but usually black fluid from the stomach is indicative of what we call altered blood, in other words digested blood from the stomach. So the important thing is that it was only found on one occasion, it was only 2ml and it was black.

JOHNSON: Yes.

EVANS: So that in itself you monitor it and you keep a careful eye on the baby's overall condition. It's not grounds for getting concerned that there's something horrible going on just because of one 2ml aspirate.

JOHNSON: But we have several other records, one of what was suggested to Dr Gibbs to be a vomit --

EVANS: Yes.

JOHNSON: -- and Dr Gibbs suggested was equally, or if not more likely, to be a posset, and also some notes of half a millilitre of black bile or something similar being aspirated. What do you say about those?

EVANS: There was a one-off vomit. So again, Dr Gibbs said it could be a posset, in other words little babies do bring up substances from the stomach. But if it's a one-off, if there's something serious going on, it's going to happen more than once. Therefore it's a one-off.

Aspirates?

JOHNSON: Yes. And the half a millilitre of aspirates, what do you say about those?

EVANS: There were four records in the last 12 hours prior to his collapse of aspirating 0.5ml each of dark bile.

Now, 0.5ml is a tiny amount. So the total amount of bile aspirated over 12 hours was 2ml.

I don't know if it's worth showing it, 2ml -- this is a 2.5ml syringe (indicating), so that's it. So the good news is it's only 0.5ml. The other good news is that the amount of bile aspirated is not increasing.

JOHNSON: What's the significance of the absence of an increase?

EVANS: The absence of an increase tends to mean that the baby's not getting worse. It's not getting worse. So therefore it's

unlikely that he has an intestinal obstruction, because if you've got an intestinal obstruction, and it's normal for a baby to produce some bile, then the amount of bile will increase in volume.

Therefore there was no increase in bile.

The other point with an intestinal obstruction, of course, is that you'll get abdominal distension and you are particularly likely to get abdominal distension if you have a combination of intestinal obstruction and your baby is on CPAP anyway.

Therefore, the fact that nothing was getting worse was reassuring and it meant that [Baby C]'s general status was under control, it was under control.

JOHNSON: Yes. I think three separate nurses have described [Baby C] as being feisty. That's the word they have used, each of them. Is that consistent with a child with an abdominal obstruction?

EVANS: No, no.

JOHNSON: Why not?

EVANS: Well, no. I know exactly what they mean by feisty, he was a well -- you know, he was developmentally a 30-weeker, remember. He wasn't -- he should have been 1.4kg, but developmentally he was 30 weeks and he was a well 30-weeker from a neurological point of view, from a brain development point of view. Therefore, in other words, he was reacting to his environment in a very good way.

If you've got a serious abdominal problem, you're not going to do any of that. Therefore he would have been a good baby. And we also know he had an ultrasound scan of his head, which was normal, great. So therefore he was a feisty baby, he was doing very satisfactorily.

JOHNSON: The next heading you gave us was one of infection.

EVANS: Yes.

JOHNSON: Could you talk us through that, please?

EVANS: Yes. First of all, the chest X-ray showed abnormalities on X-ray consistent with a lung infection, so therefore, that was a source of infection. That's the first thing.

The second point was that a blood test called CRP, C-reactive protein, which is a marker of infection, had increased from 1 to 22 or 23.

Now, the important thing about that is that it had increased because the normal value is less than 10, so it was up to 23, not particularly high, to be frank, you know. You can get values way above this in babies with infection, but nevertheless his CRP was 22. The clinical team were aware of this, which is why he was on antibiotics. They were keeping an eye on him. He had evidence on X-ray of a chest infection.

The other marker, which is a non-specific marker of infection, I suppose, is that his platelet count fell.

There was a value of 90 recorded and a value of 40 recorded.

Values of 90 or 40 on their own don't tell you very much, but if you've got a CRP that's increased and you have an X-ray that's not normal, the low platelet count was probably a non-specific marker of his infection.

JOHNSON: Thank you. In terms of some sort of -- no, I'll move on to, I think, the fourth heading you gave us, which was the metabolism or met --

EVANS: Yes, his glucose levels. Apart from one low value, all his glucose values were satisfactory, they were within the normal range, which is great. The other point that needs to be made is that he had a number of blood gas values during his last 24 hours and, again, they were within acceptable values.

We heard earlier about a blood test called lactate or lactic acid. That was normal. That suggests that his tissues, his body, was receiving satisfactory oxygenation.

There were other markers showing that he was getting satisfactory oxygenation anyway, so therefore metabolic-wise he was a very stable little baby.

JOHNSON: You mentioned earlier, when you were giving us the four headings that we're presently deal with, the issue of jaundice and bilirubin.

EVANS: Yes, that's another metabolic issue. All premature babies become jaundiced. Babies are born with a high haemoglobin. The red cells don't live so long. So as they die, they'll release -- well, a substance that makes them look jaundiced, becomes jaundiced.

The good news with [Baby C] was that his jaundice values were very, very satisfactory. He did not become severely jaundiced. If you are severely jaundiced you need phototherapy. His condition was so good, they stopped his phototherapy quickly.

The other useful point about his bilirubin being not particularly high is that an infection that is not that controlled can damage your red blood cells, so an increased jaundice is another marker of infection. He didn't have it, so the important thing is, yes, he had infection, yes, we know where it was, and yes, it was under control because of the treatment he was receiving.

JOHNSON: Yes. So lest it's not clear from the evidence you've given us so far, Dr Evans, where was his infection?

EVANS: In his lung.

JOHNSON: And what was the infection, what label would you put on it?

EVANS: I would just call it pneumonia. Blood cultures were carried out, but as far as I know, no organisms were grown. This is very common in babies because, as I think we've heard from one of the doctors, because we are so concerned about infection in premature babies, one tends to do blood cultures and other blood tests, but you do not wait to get the result before starting antibiotics.

JOHNSON: Yes. Does it come to the fact that you assume -- as you do the test, you assume you're going to get a bad result?

EVANS: Yes.

JOHNSON: So you start to -- you hope for the best but prepare for the worst so to speak?

EVANS: That's absolutely correct, yes.

JOHNSON: So you treat for what you fear may be the result of the test but you don't wait for the result before treating?

EVANS: That is correct.

JOHNSON: All right. In your opinion, taking into account all the evidence you have read and heard, did breathing issues have any direct cause -- were they the cause for [Baby C]'s collapse?

EVANS: No. The breathing issues cannot explain his collapse.

JOHNSON: Feeding issues, and by that I'm including a blockage of the gut or NEC or anything like that, did that cause [Baby C]'s collapse?

EVANS: No, that cannot explain his collapse either.

JOHNSON: The infection that you've told us he had, namely pneumonia, did that cause his collapse?

EVANS: No. No, his infection was under control. Not completely resolved, but it would not cause a collapse and certainly not a collapse, as it were, out of the blue.

JOHNSON: So if a baby with that sort of infection is on a pathway to collapse, what would one expect to see?

EVANS: Yes. We are familiar with treating pneumonia and if the treatment is not working, babies get worse. There are a number of markers that give you warning your treatment isn't working.

First of all, you may get an increase in heart rate.

JOHNSON: Did we see that?

EVANS: Which did not occur. I've seen his monitoring charts and his heart rate is nice and steady, within the normal range, all the way until the collapse. So his heart rate didn't change at all in the hours prior to his death.

JOHNSON: Yes.

EVANS: Respiratory rate, the same. It stayed within the norm.

Even more useful, in my experience, is oxygen saturation, sats. They remained absolutely where they should be, high 90s, throughout. So therefore, his oxygen saturations did not drop.

JOHNSON: I'm sorry to interrupt you, but in terms of his oxygen saturations, in the context of an infection to the lungs, namely pneumonia, does the oxygen saturation have a bearing on your view about the part that pneumonia might have played?

EVANS: Oh, absolutely, because if the pneumonia is getting worse, then your saturations will fall and/or -- the two go together -- if the oxygen level does fall, then the clinical team would increase his oxygen requirement. So therefore, he was on 25%, hardly any additional oxygen at all, but if his pneumonia was getting worse or had been getting worse during the previous few hours, then what you'd find is the oxygen requirement would have gone up, in other words the staff would

have increased the oxygen requirement to keep the saturations at a satisfactory level.

None of this was necessary, so this is why clinically, his respiratory status was very, very stable, under control.

JOHNSON: Yes. And finally, the metabolic issues, namely the glucose and the jaundice. Did they have any bearing on [Baby C]'s collapse?

EVANS: None at all. Several glucose values were done in the -- well, throughout his life. Apart from one, the values in the last day, all within normal values. Bilirubin had flattened out, great. And again, what we call blood gas values, there were a number of them and they weren't showing any trends, you know, worrying trends. They all fluctuate a bit from one test to the other, but the capillary values -- sorry, the capillary blood gases were all again as you would expect in a baby like [Baby C].

JOHNSON: Yes. And so what in your opinion, Dr Evans, was the cause of [Baby C]'s catastrophic collapse and death?

EVANS: Right. During my preliminary report I didn't come to any conclusion at all. I just thought that this was difficult to explain for the reasons we've gone through.

So we've had to go through possibilities.

In passing, one of the cases we're talking about is a little baby called [Baby G]. I'm not going to mention anything about her now obviously, but one problem that can cause a baby to suddenly stop breathing is if the abdomen is filled with air or filled with oxygen, filled with gas under pressure. A baby can tolerate a certain amount of gas in its abdomen, you know, that's not a problem, because we see that with CPAP.

But if you get a significant injection of air into the stomach, it will cause what we call splinting of the diaphragm. Now, the diaphragm is a muscle that sits between the abdomen and the lungs and the diaphragm has to move up and down for people to be able to breathe properly. If you get a load of pressure in your abdomen, that diaphragm can't move and you then get the so-called splintage and you will soon suffocate, you won't be able to breathe and you can collapse pretty quickly.

So therefore, his collapse is consistent with a volume of air injected into his stomach, it splints the diaphragm, stops breathing, he's less than 800 grams, so that's what happens.

JOHNSON: Okay. I just want to -- because this is, as you've already alluded to, at least in passing, this is or may become a recurring theme in this case. All right? So I'd just like you to give the jury a bit more of an explanation.

Is the position this, that the lungs are in the upper part of the chest?

EVANS: Yes.

JOHNSON: One on either side.

EVANS: Mm.

JOHNSON: Beneath the lungs is a muscle called the diaphragm?

EVANS: Yes.

JOHNSON: You said the diaphragm moves down as you breathe in?

EVANS: Yes.

JOHNSON: So is the effect of it moving down to cause negative pressure in the upper chest?

EVANS: Yes, to suck oxygen, air, into your lungs, yes.

JOHNSON: All right. But the diaphragm can move down normally, but if, underneath the diaphragm, the stomach is pumped full of air, what effect does that have on the movement of the diaphragm?

EVANS: It stops the diaphragm moving effectively.

JOHNSON: And the effect of that is what?

EVANS: If the diaphragm is unable to move effectively, then your lungs cannot get air into them, cannot get fresh air or fresh oxygen. Without fresh oxygen you become hypoxic, in other words you lack oxygen, and obviously you cannot survive without oxygen, thus a collapse.

JOHNSON: Yes. Now, in the context of [Baby C]'s death, have you seen an expert report written by a pathologist called Dr Andreas Marnerides?

EVANS: I have.

JOHNSON: Have you also had an opportunity of discussing this case with Dr Marnerides at all or have you simply been limited to reading his report?

EVANS: I think I discussed it -- yes, I have discussed it with him.

JOHNSON: In coming to your view, have you taken into account the findings of Dr Marnerides?

EVANS: I have.

MR JOHNSON: I won't ask you any more about that. If anybody else wants to ask you, they can.

Can I just have a moment, please, my Lord?

(Pause)

Those are all the questions I have at this stage, thank you.

MR MYERS: It's a little early for a break, my Lord, but for various reasons there's something I would like to consider before I cross-examine Dr Evans --

MR JUSTICE GOSS: All right.

MR MYERS: -- as to matters arising now.

MR JUSTICE GOSS: All right.

MR MYERS: I'd be grateful. Maybe 15 minutes is all we require.

MR JUSTICE GOSS: Will 15 minutes be enough?

MR MYERS: It should be, yes.

MR JUSTICE GOSS: It's going to be earlier than it should be, but Mr Myers wants a break and he should have a break to consider this matter, so this will be an early afternoon break. Thank you very much. But the only one, I'm hoping.

(In the absence of the jury)

(The witness withdrew)

MR MYERS: We're grateful for that, my Lord, thank you.

(2.32 pm)

(A short break)

(2.47 pm)

MR MYERS: I'm grateful for the time, my Lord, thank you.

MR JUSTICE GOSS: Thank you. Jury in, please.

(In the presence of the jury)

Cross-examination by MR MYERS

MR MYERS: Dr Evans, you've explained today that your conclusion is that the cause of death in [Baby C]'s case arose from the splinting of his diaphragm.

EVANS: That is -- the mechanics of that, yes, is correct.

MYERS: You've had the relevant clinical material and the statements relating to [Baby C] for over 5 years or thereabouts, 4.5 years, haven't you?

EVANS: Yes.

MYERS: You've considered other cases featuring in this trial where you have provided reports giving the opinion that splinting of the diaphragm is a cause of death, like [Baby G], haven't you?

EVANS: Yes.

MYERS: Before today, just now, you've never suggested that splinting of the diaphragm on 13 June is the cause of death for [Baby C], have you?

EVANS: That's correct.

MYERS: This is the first time we're hearing it right now, isn't it?

EVANS: Yes.

MYERS: You are alert to the possibility of splinting of a diaphragm from the other cases you've looked at, aren't you?

EVANS: Yes.

MYERS: Your opinion, I'm going to suggest, and as far as you can go on the material available to you alone, would not take us to splinting of the diaphragm on 13 June, would it?

EVANS: Well, I don't jump to conclusions, so therefore, as we discussed earlier, this death was unexpected and could not be explained as a result of one or more of the usual illnesses that premature babies get. Doctors work as a team. We rely on opinion

from other sources. And if you look at the combination of what I thought his clinical situation was, plus what I've read from Dr Marnerides' report and others, and on top of that the gaseous distension in the stomach, putting it all together that is an acceptable cause of collapse in my opinion.

MYERS: If you really thought that splinting of the diaphragm in the case of [Baby C] was a cause of collapse, you would have said that before today, Dr Evans.

EVANS: Not necessarily. I think when I came to this court first of all, I said that having prepared these reports initially over 5 years ago, in virtually all of the cases I've benefited from additional information since then, you know, from other experienced medical people, and if you receive additional information from other people in other disciplines, which allows you as a clinician to change or modify your opinion, that is what doctors do.

I was functioning very much as a clinician in any case of this nature.

MYERS: I suggest, Dr Evans, you have been driven by something which leads you to support the allegation rather than something based on the facts beneath it. That's what's going on here, isn't it?

EVANS: No. The fact is this baby collapsed having been stable up until more or less the minute of his collapse and therefore one has to explain that.

MYERS: I just want to deal with what you have said in -- is it eight reports that you've prepared in the case of [Baby C] plus one joint report? That's correct, isn't it?

EVANS: I think so, yes.

MYERS: Yes. And again, just to make it quite clear, in not one of them before today have you suggested that splinting of the diaphragm on 13 June was a cause of death?

EVANS: That is correct.

MYERS: The first report that we heard about, which is on 7 November 2017 -- in that report, Dr Evans, you said that, your paragraph 33:

"One may never know the cause of [Baby C]'s collapse, he was at great risk of unexpected collapse."

That's paragraph 33 of that first report.

EVANS: All of this is correct.

MYERS: So you agree he, in fact, was at great risk of unexpected collapse?

EVANS: He was at risk of one or more of the complications you get in preterm babies we discussed earlier.

MYERS: Your words are --

EVANS: Sorry, sorry, sorry, but although he was at risk of them, he was in a neonatal unit, designated to look after him, with continuous monitoring of essential criteria such as oxygen, et cetera. So therefore, the risk was there. This is why neonatal units exist: they are to look after babies at risk of death, collapse or serious injury. Therefore the risk was there and if he had not collapsed on the 13th, he could well have -- you know, the risks were there until he was much bigger.

So the risk is there, the risk is there constantly, but those -- but although the risk was there, I was satisfied, what on earth is going on here -- I think we heard Dr Gibbs say he couldn't explain why this baby collapsed either. That's a pretty straightforward statement, actually. One may never identify the cause of [Baby C]'s collapse.

MYERS: Are you saying --

EVANS: I'm not the only doctor giving evidence on this particular baby and therefore they will give evidence in due course. So that's as far as I could get based on the information I had in 2017.

MYERS: Let's be clear: what you say there, based upon the records that you had access to and those statements at that point, was one may never identify the cause of his collapse?

EVANS: Yes.

MYERS: You were ready to acknowledge that then?

EVANS: Yes.

MYERS: And you were ready to acknowledge he was at great risk of unexpected collapse; do you agree?

EVANS: Yes, yes, yes.

MYERS: You also formed the view that you cannot exclude the role of infection in his collapse; paragraph 34.

EVANS: Yes. I think -- yes, I am quite happy to elaborate on that.

MYERS: Let me just ask before you do. That's on the basis of the sort of material in the medical notes that we've been looking at now, isn't it?

EVANS: Yes.

MYERS: And faced with that, back in 2017, you were able to say that we cannot exclude the role of infection, weren't you?

EVANS: Infection was a factor in [Baby C]'s short life. We know that. We know he had pneumonia. So it was a factor.

It is possible to suggest that if he did not have pneumonia, he may not have suffered the collapse -- no, I want to rephrase that.

His pneumonia was under control. His pneumonia was under control. That's the important thing. He was on antibiotics, he was requiring hardly any additional oxygen, and his saturations were spot on. So therefore, his pneumonia was under control.

But it's my role -- I was investigating this unexpected collapse, it was my role not to -- to give an impartial view looking at all the issues, looking at all these issues. In other words, I don't prepare partisan reports, so therefore if you've got a CRP of 22, I've got to bear it in mind. If you've got an X-ray that shows pneumonia, I have to bear it in mind. Are a CRP of 22 and a pneumonia on X-ray in a baby requiring 25% oxygen sufficient explanation to cause his collapse? In my opinion, no.

MYERS: Your opinion -- sorry, Dr Evans, please continue if there's more.

EVANS: No, I've finished.

MYERS: Your opinion, do you agree, in that report was that you cannot exclude the role of infection?

EVANS: Infection was a part of [Baby C]'s general status during his life.

MYERS: You didn't say in that report infection was part of his general status. Dealing with your opinion as to death, you said you cannot exclude the role of infection in his collapse. It's there, Dr Evans.

EVANS: Infection was a factor in his life. Did it contribute...? It didn't cause his death. That's what I believe, didn't kill him.

MYERS: Saying you cannot exclude the role of infection in his collapse acknowledges that it may have played a part, doesn't it?

EVANS: It may have -- it was a contributory factor. We've heard about the four main contributory factors earlier today.

MYERS: Well, now you've come to give evidence to the jury, on the same occasion that you introduce splinting of the diaphragm, you have today discounted infection in any way, haven't you?

EVANS: No, I have not discounted infection. I have explained to everybody that the report of Dr Marnerides, who's the pathologist, highlights the issue of abdominal distension causing the diaphragm -- causing splinting of the diaphragm.

Now --

MYERS: Can I just ask you something about that?

EVANS: Please do.

MYERS: You are not just here to repeat what's in the report of Dr Marnerides, are you?

EVANS: I am here -- right. What we do as clinicians is this: we base our opinion on an accumulation of information.

Okay? Nothing to do with being in a court or anything.

We rely on three items of information: the history, the examination and the investigations. So we put all of that together.

In a patient who sadly dies, we then turn to pathologists to see if they can enlighten us on information that we are not too certain about. There's no point in getting a pathology opinion -- if I knew everything I would not need a pathology opinion.

So therefore, you need all of those things. The greater the bits of information you have, then the more likely you are in reaching a diagnosis. So in this particular baby, I'm not going to repeat what I said earlier, we know the history, he was a preterm baby, we know what the examination findings showed, we know what the investigations showed. The markers of infection are pretty marginal, a CRP of 22, in an otherwise -- a baby who wasn't -- just had an infection -- it's important, Mr Myers, to

know -- he was recovering from an infection. If I didn't say that too clearly in my report, well, there we are.

But his supportive therapy wasn't getting worse, it was getting less, because for the last 12 hours of his life he was off his CPAP, right? He was off his CPAP.

All he had was Optiflow, which is basically nasal prongs to deliver -- so you know exactly what percentage of oxygen the baby's getting.

So therefore, respiratory-wise, he wasn't even staying the same, he was improving.

MYERS: Can I ask you this, Dr Evans: are you trying to use what you anticipate will be the evidence of Dr Marnerides, the pathologist, to find a way of producing an allegation as to the harm that was done on the 13th --

EVANS: No, no --

MYERS: -- which you haven't made before today?

EVANS: Sorry, this baby was put in harm's way.

MYERS: That's something, so far as the 13th is concerned, that until you gave your evidence now, you have not identified to this point on the 13th, have you?

EVANS: What I did initially was --

MYERS: Can I ask that first, please? Can you answer that question (overspeaking).

EVANS: Ask it again.

MYERS: You have not in these reports, up until your evidence now, identified any specific way in which he was put in harm's way on 13 June, have you?

EVANS: Not in this first report, no.

MYERS: And you are coming up with things here now, as we go along, to try to support an allegation of harm on 13 June, aren't you?

EVANS: No, I'm coming up with clinically proven mechanisms that explain why babies collapse.

MYERS: Well, let's move then to your next report, the second one -- one specific reference was made to it -- of 31 May 2018, 6 months after the first one.

EVANS: Yes.

MYERS: In that report you say at paragraph 36, having had time to reflect from the first report:

"One may never identify the cause of [Baby C]'s collapse."

EVANS: That is correct.

MYERS: "He was at great risk of unexpected collapse."

EVANS: Yes.

MYERS: That was your considered opinion, wasn't it?

EVANS: Yes, it was.

MYERS: And that's the position, isn't it, one may never identify the cause of [Baby C]'s collapse and he's at great risk of unexpected collapse?

EVANS: Right. He was at great risk, okay? He was at great risk. There's quite a big difference between being at risk of unexpected collapse and actually finding a cause for it. Again, as I have said, as a clinician, you play as a team, and part of your team in a child who sadly dies is the pathology.

MYERS: Is your team the other prosecution experts, Dr Evans?

EVANS: No, no.

MYERS: Who's your team, so we can be clear?

EVANS: The medical team. I have not seen any report that comes up with an explanation regarding [Baby C]'s collapse other than what I have said today and what Dr Marnerides has said in his report and what other people will say.

I have read reports that are -- I don't mean this disrespectfully -- I've read reports that come up with this idea and that idea and the other idea and all that sort of stuff, which is very interesting to me because I'm a clinician, I want to know what could have caused all this, but I have not seen a single report -- and I am happy to be corrected on this one -- I have not seen a single medical report that says I am wrong, [Baby C] died because of something else. I have not seen a

single report that gets off the fence and tells me that. I am happy to be corrected, Mr Myers, but I have not.

Therefore this would always be -- this case, right?

This case would always be a challenging case for any clinician and it's a challenging case because we know of his various pathological problems, so it is quite difficult to separate the pathological problems, infection, feeding, et cetera, that we heard about earlier, it's quite difficult to separate those from an event where he was placed in harm's way as a result of some kind of deliberate act.

Now, I don't think I could do that alone. But putting all the evidence together, then that is where we are.

MYERS: I'm looking at what you say here, Dr Evans. You don't mention in this report, the second one we came to, anything about splinting of the diaphragm on the 13th, do you?

EVANS: No, no, you've said that several times and we have all heard it.

MYERS: There are several reports, aren't there?

EVANS: Yes.

MYERS: In none of which do you mention splinting of the diaphragm on the 13th, do you?

EVANS: No, you have mentioned that and I have said, no, there isn't.

MYERS: You also in this report, paragraph 37, repeat that you cannot exclude the role of infection in his collapse, don't you? Paragraph 37.

EVANS: It is a factor in his general status, yes.

MYERS: And that's the truth of the matter, isn't it? You cannot exclude infection from his collapse?

EVANS: What you cannot do, you cannot exclude infection as a factor in his general status. What I can do, looking at all of this -- remember I prepared a load of reports looking at all of this -- is this. He's got an infection but it's under control. And we all -- you know, I've listened to the evidence from the other people. We've all heard the evidence from the local teams --

MYERS: It's your evidence we're looking at now, Dr Evans.

EVANS: Yes, I'm aware of that and that's my evidence.

MYERS: Let's move forward to about a year or so later, 26 March 2019, the next report. Paragraph 13.

EVANS: I don't have paragraphs on my copy. Hang on.

MYERS: It's page 6 of 7.

EVANS: I beg your pardon, I do.

MYERS: Two things here, page 6 of 7. Having reviewed all of this, about a year later, you say -- and it's in the centre of that paragraph:

"It's therefore probable that infection was a significant factor in [Baby C]'s collapse during the late hours of 13 June 2015."

EVANS: Yes, yes, I've seen that, yes.

MYERS: And you recognised then that infection may be a significant factor in his collapse, didn't you?

EVANS: That was my opinion at the time and, as I have said, if, as a clinician, I receive additional information that allows me to change my opinion or modify my opinion, that is what we do as clinicians.

MYERS: But nothing has changed with regard to evidence of infection, Dr Evans, since then. You may have heard other things from Dr Marnerides, but nothing's changed on the evidence of infection, has it?

EVANS: No, he had an infection, he had pneumonia, it was -- on the monitoring that was present on the little baby, his monitoring was fine.

MYERS: The same evidence of infection is before the jury now as was before the jury at the time you came to that conclusion, isn't it?

EVANS: If this -- we are not relying -- well, we're not relying on my evidence alone. With this particular baby, I couldn't take it any further than what we've discussed this morning and confirmed just now.

MYERS: But you see, in March 2019, the possibility of someone forcing air down the NGT was in your mind, wasn't it?

EVANS: It was actually.

MYERS: But not on 13 June; yes?

EVANS: I don't know what you mean.

MYERS: Let me help. If we go to paragraph 14, please, Dr Evans. The jury --

EVANS: Oh yes, yes.

MYERS: The jury will recall we've seen the abdominal X-ray for 12 June at 12.38.

EVANS: Yes.

MYERS: Right.

EVANS: Yes.

MYERS: And as to that, what you do say, we've had a paragraph where you say:

"It's therefore probable the infection was a significant factor in [Baby C]'s collapse during the late hours on 13 June."

In the next paragraph, you go on to say this:

"I am suspicious of the gaseous distension reported on the abdominal X-ray on 12 June and wonder whether this represents inappropriate management whereby his attendant inserted excess air into his stomach via his nasogastric tube, doing so in the knowledge that it would cause the infant discomfort and distress."

EVANS: That was a possibility that crossed my mind at the time.

MYERS: At the time, just at the time?

EVANS: No, no, when I wrote this statement.

MYERS: When you say at the time, is it a possibility that came in and went out with this report or did it stay with you for longer?

EVANS: I don't know what you mean by that, actually.

MYERS: Is it a possibility that existed only when you did this report or have you stuck with the theory that there was air forced down the NGT on 12 June?

EVANS: Right. Whether --

MYERS: Can you answer that question first (overspeaking) help the jury with an answer, please, doctor.

EVANS: With regard to the 12th. That was one option. The other option was the CPAP. Because he was on CPAP at the time, which he wasn't when he collapsed. But he was on CPAP at the time. So that was one option.

The other option was inadvertent air and we can't discuss it now, we'll discuss it later in this trial in relation to other cases. Therefore -- so therefore, by this time, I was aware of the fact that several babies had collapsed, some had died, in Chester, and, yes, so all of this was adding to my anxieties about what was causing all of this, yes.

MYERS: And your view, back in March 2019, was that there could have been deliberate harm done on 12 June via the NGT; yes?

EVANS: Can't rule it out.

MYERS: Pardon?

EVANS: There were two scenarios --

MR JUSTICE GOSS: "Can't rule it out", he said.

MR MYERS: I apologise, my Lord?

EVANS: You can't rule it out, two scenarios. That's one of them. The second one is he had CPAP -- he was on CPAP at the time.

MR MYERS: If we come forwards, there was, we know, a report prepared after a joint meeting of experts in August of this year, wasn't there?

EVANS: Yes.

MYERS: And Dr Marnerides was present at least for part of that meeting, wasn't he?

EVANS: Yes.

MYERS: The date of the report, there are various dates on it with the signatures, but we are looking at a period at or about the end of August. You signed it, Dr Evans, on 24 August 2022.

EVANS: Yes.

MR MYERS: Page M1257, my Lord.

MR JUSTICE GOSS: Thank you.

MR MYERS: That's where it starts. At page M1260, page 4 of the report, you were dealing with opinions on [Baby C]. This is a report that you signed off on, really, a month or two before this trial commenced, wasn't it?

EVANS: Yes.

MYERS: In that report, you say:

"The massive gastric dilation seen on the X-ray of 12 June was most likely due to deliberate exogenous administration of air via the NGT."

That's what you say, isn't it?

EVANS: That was our conclusion at the time. I think this was a joint report, I think.

MYERS: Yes, but that's a conclusion between you and Dr Bohin, isn't it?

EVANS: Yes.

MYERS: By the time you did that you had all the material you required on the care of [Baby C], didn't you?

EVANS: Yes, I think so.

MYERS: Yes. And armed with that material, your view was that the 12 June was probably due to deliberate exogenous administration of air; is that correct?

EVANS: That was a possibility, yes.

MYERS: Most likely due to that, you say.

In that report, a matter of months or a month or two before this trial commenced, you make no suggestion that the diaphragm had been splintered by excessive air on 13 June, do you?

EVANS: Right. That follows, actually -- perhaps it wasn't -- it wasn't said specifically.

MYERS: Can we establish that first of all?

EVANS: Yes, that is correct.

MYERS: You didn't?

EVANS: That is correct.

MYERS: There are about 13 different points under [Baby C] --

EVANS: Sorry, I haven't got a copy.

MYERS: Let me ask this: if you had wanted to say it was splinting of the diaphragm, nothing stopped you from saying that, did it?

EVANS: If it wasn't said, it wasn't said.

MYERS: No, it wasn't said because it wasn't something that you had entertained as a possibility at that point, was it?

EVANS: Right. That is incorrect. What we have discussed here is -- let's stick with the 12th, okay? There was a distinct possibility that [Baby C] had excess air injected into his stomach on the 12th. That's what we said.

At the same time we realised that however much air was in his stomach, he was still stable from a respiratory point of view. So therefore, you would only -- so excess air injected into the stomach -- it's a complicated description, this. Injected air -- air -- sorry, start again.

Air injected into the stomach will cause the stomach dilation, but it'll compromise the baby only if the air -- if there's sufficient air and there's sufficient pressure to splint the diaphragm. Right?

Now, on the 12th, [Baby C] was in CPAP, which is a pretty non-invasive method of respiratory support, so therefore however the air -- however the air went in, it would have been insufficient to splint the diaphragm on the 12th. Okay? Because if it had splinted the diaphragm on the 12th he'd have died or collapsed on the 12th. He didn't. So therefore, however much air went into his stomach and intestines on 12 June, so we're talking 36 hours prior to his collapse, that -- and I have no idea how much air went in. However much went in was insufficient to destabilise [Baby C] from a respiratory point of view.

So therefore there was no -- so therefore there was nothing to suggest that the extra air would have splinted the diaphragm at that time. Okay? That was the last X-ray, by the way, that was taken -- that's not a criticism by the way -- the one on the 12th. That was the last X-ray. So the only X-ray -- sorry, so the only X-ray evidence we have is from the 12th, we don't have any from the 13th.

Therefore, I hope that distinguishes what I think is a mechanism, a scenario, that occurred on the 12th, compared to the scenario that occurred that led to his collapse.

MYERS: Dr Evans, we're looking --

EVANS: There are different -- the two are different, both in relation to volume of air that got into his stomach and intestines and the other -- in other words, it did not compromise him. And the second thing, which we're aware of, is that he had CPAP -- he was on CPAP as well.

So those are -- the two events are quite different in the way that they affected [Baby C].

MYERS: Looking at your opinions, before we get to what lies behind this, your opinions and the way you have formed them, and I'd just like you to be absolutely clear, that as of a month or two before this trial, whatever may or may not happen as a result of it, your view was that 12 June was intentional harm, wasn't it?

EVANS: That was a possibility, yes, it was.

MYERS: Yes, that was your view. At the same time you had nothing to say about splinting of the diaphragm on the 13th, did you?

EVANS: On the 13th, I think he collapsed --

MYERS: No, in that report, your view, Dr Evans, I'm sorry if the question wasn't clear, at that time you had nothing to say in August of this year as to splinting of the diaphragm on the 13th, had you?

EVANS: No.

MYERS: No. What you have done in your evidence today is introduce something new with the purpose of supporting the allegation rather than explaining the facts, isn't it?

EVANS: No, no, that is incorrect. I'm here to support the jury and everyone in this court, trying to explain what was it that led to a baby who was very small and premature suddenly collapsing and where resuscitation was unsuccessful.

In doing that, I am totally upfront in saying that I am not relying on my opinion alone, I'm relying on other people's opinion -- sorry, other medical people's opinion as well. That is what doctors do. We do it all of the time. That is what we do. Okay? So I'm here to assist the members of the jury in sorting out what is a pretty complicated case.

MYERS: I'm suggesting to you, Dr Evans, that you are reaching for things that support the allegation rather than reflecting the facts.

EVANS: Well, I disagree with you. I have just explained the facts --

MYERS: Right.

EVANS: -- to you and that's it.

MYERS: Before I proceed with this, I'd like to ask you about one thing that occurred when you last gave evidence with that point in mind. It's something I couldn't deal with at the time because of the way that the evidence ran.

I wonder if we could just put up -- and I am sorry we have to go to the [Baby B] documents. Just for the purpose of this, could you put up, please, Mr Murphy, slide 233 from the [Baby B] pictures?

I'm raising this question about your approach to the evidence, Dr Evans.

Page 1282 under [Baby B]. You need to come out and go back in again and then it is slide 233.

Just to reassure you and everyone else, Dr Evans, and the jury in particular, we'll get back to [Baby C] shortly.

Could we go behind that slide, please? When you last gave evidence, we spent a little time looking at the colours relating to [Baby B] and what you wanted to say about that. If we go over the page to the point where [Dr B], whose notes these are, [Dr B] -- I apologise, Mr Murphy, you might need to go back to page 1282. There we are, the centre of that page.

We'd been talking about the colours, the jury may recall, I know it seems a while ago, but we were talking about the specific rash from Lee and Tanswell, about the bright pink movements on it, the markings of that rash and there was this exchange at the conclusion of the evidence. It was after I have had finished asking you questions.

This was brought to your attention by the prosecution. The reference at the centre of the page, can you see:

"Upon my arrival purple blotchiness, right mid-abdomen."

Do you see that?

EVANS: Yes.

MYERS: The prosecution said:

"Question: The notes of [Dr B] that are on the screen at the moment, Dr Evans, if you look, it was suggested that what [Dr B] had noticed was inconsistent with the article. I was suggesting it was inconsistent with Lee and Tanswell. The only part that was read to you was:

"'On my arrival purple blotching or blotchiness.'

"Whatever that says halfway down."

You said yes. And then you were asked this:

"Question: In the next line it says:

"'Right mid-abdomen and right-hand pink and active.'"

Do you see that?

EVANS: Yes.

MYERS: And it was said:

"Question: [Dr B] interpreted her own handwriting for us this morning. That 'pink and active' wasn't read to you. Do you see that?"

You said yes. And you were asked this:

"Question: Is that consistent or inconsistent with Lee and Tanswell?"

And your reply was:

"Answer: It's a good point, actually."

Now, it is obvious, Dr Evans, I am going to suggest to you, that where with we see "[full stop] pink and active", this is not a description of a rash, it's is not a description of a pink and active rash or skin colour, but a description of the baby, isn't it?

EVANS: No, isn't, actually. This was something that was put to me at the last minute on Friday afternoon. I'll read it out. It was put to me without having discussed it with anybody. It says:

"Right mid-abdomen and right-hand pink and active."

It did not say -- I can hardly see the dot after "right-hand". That's the first point. But I think more important:

"Right mid-abdomen and right hand [full stop]."

It did not say "baby pink and active".

MYERS: You've been listening --

EVANS: Just a minute. Let me finish all of this. So therefore -- so you could very easily interpret that -- we've since heard that [Dr B] meant right mid-abdomen -- hang on:

"Upon my arrival, purple blotchiness right mid-abdomen and right hand."

Now, full stop. Okay? That's the significant marker which was consistent with Lee and Tanswell's paper, et cetera.

Then there's a full stop. Right?

"Pink..."

Lower case pink, by the way, it's not a capital P, good handwriting. It's a lower case pink. Then there's a squiggle which I assume means "and", it's not an ampersand:

"Pink and active."

So that is what I saw. I did not read:

"Baby pink and active."

The sentence -- normally sentences start with capital letters. It starts with a lower case "pink".

If you are suggesting it is a new sentence -- and therefore making a meal out of this is something I find a little bit worrying.

MYERS: I'm asking you these questions for you to help the jury, Dr Evans (overspeaking) I am not asking you whether you are worried about it.

EVANS: Well, it's up to the jury, the jury can read that the full stop is not very clear, they can read that the pink starts with a lower case "pink" and there's no "baby"

written before. It's not a new paragraph even. If that paragraph flows, let's read the whole sentence --

MYERS: We can read it.

EVANS: Just a minute:

"On my arrival, purple blotchiness right mid-abdomen and right-hand pink and active."

That is what I would expect most people, laypeople, jury people, doctors, to read. If you were to -- if [Dr B] has said she meant "baby pink and active" then I would suggest you should have a word with her about making comments that are not completely clear. This is not my way of writing things down.

MYERS: You listened closely to the evidence of the witnesses dealing with this, didn't you?

EVANS: We've discussed [Baby B] and, by the way, with [Baby B] I came to my conclusions regarding air embolus --

MYERS: Can we get to the question I am asking you about.

Please help the jury with this --

EVANS: I've helped the jury. You raised the issue of three (inaudible: coughing), none of which starts with an upper case, as a sentence starts, and you're making an issue of something called "pink and active" which follows an entry saying:

"Purple blotchiness right mid-abdomen and right hand."

MYERS: [Dr B] that morning, before you gave evidence, said "pink and active" referred to the baby, didn't she?

EVANS: I can't remember that but it's not in the notes.

MYERS: You have told us about your 30 or 40 years of experience as a paediatrician, how you have seen medicine evolve.

You know very well "pink and active" has nothing to do with a rash when you look at that?

EVANS: If you look at the whole sentence and that sentence is confusing, okay? At the very best it's confusing. You do not start sentences with lower case. If you're implying -- if you're relating -- the other thing you don't do is this: her earlier -- her previous sentence relates to the right mid-abdomen or right hand. So how on earth am I supposed to work out that the next sentence, which begins with a small p, relates to be baby being pink and active. If she'd said "baby pink and active", fine, good, we know exactly where we are.

This is just making a meal out of something. I have no idea why, but there you go.

MYERS: The jury will decide whether this is a meal out of nothing.

Now please assist me: "pink and active" plainly has nothing to do with a rash, has it?

EVANS: "Right mid-abdomen and right hand pink and active."

The whole thing doesn't follow. If she'd said "baby pink and active" that makes sense.

MYERS: You're not independent in this at all, are you, Dr Evans?

EVANS: I beg your pardon?

MYERS: You're not independent as a witness. You keep saying you're an independent expert. You're not independent, are you?

EVANS: I am completely independent. I've been giving evidence in court for a long, long time. I know about impartiality, I know about the rules, and I know I'm here to assist the members of the jury in forming an opinion. I am not here for the prosecution, I'm not here for the defence; I am here for the court.

Mr Myers has been very kind in spelling out all the courses I attend in relation to my work for the courts, and that is something that is spelt out time and time again: if you are a medical witness, you are there for the court.

Inf the family courts you are there for the --

MR JUSTICE GOSS: I think we've heard this before.

Thank you.

Can I just interpose at this stage? Because it's been going round and round this:

"Upon my arrival, purple blotchiness, right mid-abdomen and right hand."

Now, if that is a complete phrase or sentence, does that make sense?

EVANS: As a complete sentence that makes sense, my Lord.

MR JUSTICE GOSS: What does it tell you?

EVANS: That there's purple blotchiness of the right mid-abdomen and right hand.

MR JUSTICE GOSS: Right. Adding "pink and active", does it make sense?

EVANS: No, it doesn't, actually. I'm sorry, it doesn't.

Saying baby pink and active, that makes sense.

MR JUSTICE GOSS: Yes. So if it is meant to be a full stop and then a capital letter, "pink and active", and refers to the baby, the baby is pink and active?

EVANS: Yes.

MR JUSTICE GOSS: So there's the purple blotchiness in the right mid-abdomen and the right hand but the baby is pink and active and that makes sense?

EVANS: If it says "baby pink and active" that makes sense.

MR JUSTICE GOSS: All right. There we are.

EVANS: A phrase saying "pink and active" --

MR MYERS: I'll move on.

MR JUSTICE GOSS: Yes.

MR MYERS: We've dealt with infection and what you have said about it, certainly up to today, Dr Evans. I want to move on to feeding.

Black bile aspirates are a cause of concern if they're produced by a neonate, aren't they?

EVANS: The nursing entry note is to black fluid, not to black bile. If we go to -- I think it's 1960.

MYERS: I'm asking you first of all: black bile aspirates are a cause of concern, aren't they?

EVANS: No, a bile aspirate is a cause to record. How much concern it is depends, relates to the context of what we're dealing with. As again, I keep saying this, as a clinician you look at all the features, you do not look at a single feature, you look at everything.

Presence of bile, yes, you need to take it seriously. You need to note it, yes.

MYERS: Right. So the presence of bile you take seriously. If the bile is black, that is more concerning than if it's green, isn't it?

EVANS: Not particularly. I think if it's black, as Dr Gibbs said, I think you've got to consider that it was altered blood, actually.

MYERS: If there's any vomiting associated with it, that's an additional concern, isn't it?

EVANS: If there's vomiting, you need to record it, yes.

MYERS: And if there's been bile, and I'm going to suggest dark or black bile, and vomiting, that is, as I've described to other witnesses, a red flag, isn't it?

EVANS: No, it's a marker, it's a record of what nursing and clinical staff, medical staff, look at. You need to look at everything in context. Okay? You need to look at everything in context. You can't go round choosing something that suits you, suits your case. You look at the whole patient, you look at the whole amount of information available to you.

MYERS: If you were looking after a little baby like [Baby C] with the issues that he had associated with him, would it not cause you concern if he produced black bile aspirates and vomiting?

EVANS: Right. I've looked at lots of little [Baby C]s and what you'd do is you'd record them, you record what's going on here.

Therefore, first of all, you look at the baby overall, okay? You look at the baby overall -- I'm not going to go through all of this --

MR JUSTICE GOSS: I was going to say, I think we've gone through this several times.

MR MYERS: I agree, my Lord. I'm just trying to ask the questions and they're not taking so long, the questions.

Signs of a blockage, Dr Evans.

EVANS: Sorry, signs?

MYERS: Of a blockage, abdominal blockage, include bile and vomiting, don't they?

EVANS: Yes.

MYERS: They include abdominal distension?

EVANS: They do.

MYERS: They may include bowels not opening?

EVANS: Yes, they do.

MYERS: All of which, as it happens, are present in this case?

EVANS: Yes, they do. Yes, they are.

MYERS: You'd expect in a baby, within 24 hours of birth, for air to be along the length of the gut, wouldn't you?

EVANS: Not necessarily in a little prem of this size, no. Not really, no.

MYERS: If air has managed to fill the gut, to distend it to the extent we have seen on that X-ray on 12 June, you would expect that to be moving through the gut, wouldn't you?

EVANS: I would expect it to move through, but it depends on this process, what we call peristalsis. Which is -- peristalsis is the wave that goes through intestines to push air and fluid and everything else through.

So I am not too sure about this, actually. I'm not too sure. You're talking about a prem baby, tiny baby, he's not had any food. Mm... I wouldn't be... It's not something I want to be dogmatic about.

MYERS: Large quantities of air do not get absorbed back into the gut wall?

EVANS: You'd get some air absorption, I don't know how much.

MYERS: But if we see the sort of distension we have seen in that photograph of 12 June, the sort of quantities we see there are not normally absorbed by a gut wall, are they?

EVANS: That's a lot of air.

MYERS: And it wouldn't be absorbed by a gut wall, would it?

EVANS: I wouldn't have thought so. Most of it comes up through the tube, actually, up the nasogastric tube.

MYERS: I'm grateful to Mr Maher who has explained that Dr Evans is too far from the microphone, so if you lean forward they will be able to pick it up better.

EVANS: Thank you.

MYERS: So the jury understand, when you have made reference in reports previously to air having been introduced deliberately down the NGT, that is based upon that X-ray that we've seen on 12 June, isn't it?

EVANS: No. It's not actually. It's on the fact that the baby collapsed unexpectedly on 13 June. All right? I've explained about the 12th June and that this -- and that whatever happened on 12 June did not splint the diaphragm because, if it had, the baby would have collapsed. What happened on 13th is totally different.

But if I may fast forward here --

MYERS: Could I just repeat the question? I just asked you that you have regarded the air that we see on that X-ray on 12 June as what is indicative of air having been deliberately forced down the NGT that day. And you have, haven't you?

EVANS: That was an opinion I've expressed, yes.

MYERS: Yes, that's right, you expressed it in your report --

EVANS: Yes.

MYERS: -- I'm not going to read it out -- on 26 March 2019, didn't you?

EVANS: Mm.

MYERS: Yes?

EVANS: Yes, yes, yes, yes.

MYERS: And you expressed it in the joint report in August of this year?

EVANS: Yes.

MYERS: What evidence do you have of distension to the bowel or the abdomen post-mortem that indicates this was due to air down the NGT as a cause of death? What's the evidence you rely upon?

EVANS: I'm going to leave the interpretation of the autopsy to Dr Marnerides.

MYERS: What is the evidence you -- I am not asking you to repeat Dr Marnerides' opinion. What's the evidence you rely upon when you tell the jury that the diaphragm was splinted on the 13th? What's the evidence?

EVANS: Baby collapsed, died.

MYERS: A baby may collapse for any number of reasons. What's the evidence that supports your assertion made today that it's because of air going down the NGT?

EVANS: The baby collapsed and died.

MYERS: Do you rely upon one image of that?

EVANS: This baby collapsed and died.

MYERS: What evidence is there that you can point to that you rely upon, sorry, that indicates air had been forced down the NGT, Dr Evans?

EVANS: Right. To answer this more clearly, I need to introduce a concept that I've mentioned last week, which is to do with differential diagnosis. Okay? A differential diagnosis is something that all doctors rely on. If you think that there is no specific -- sorry, if you think that whatever's happened is not due to one phenomenon, it may be due to another phenomenon. Now, it's not in my report, so I have not mentioned it, but if pressed, I'm obliged to mention it.

This baby collapsed and died. This baby collapsed and died and I have -- on top of my list, and this is the result of what we've discussed. Is there a differential diagnosis? Well, the answer to that is yes. This baby could also have collapsed as a result of air being injected into his circulation intravenously.

MYERS: I beg your pardon, can you repeat that?

EVANS: You asked me, I'm going to answer. All right? Let me finish, please.

So therefore, there are three scenarios clinically.

One is more likely than the other two for reasons we've discussed. I know this sounds awful, but what happened is this baby collapsed and died who had an infection that was under control. We've spoken about injecting air into the stomach, causing such high pressure it's interfered with his breathing.

The second scenario is that in the -- that air was injected intravenously -- intravenously -- causing an air embolus, which we discussed at some length last week.

MYERS: Have you ever come across a suggestion --

EVANS: Just a minute, you've asked me the question, I have the right to answer it.

The third scenario, the third scenario, which sounds even worse, is that this baby may have died as a result of a combination of air injected into his stomach and air injected intravenously, which sounds awful. But we've just finished [Babies A & B] last week.

So therefore, from my perspective, from my perspective, if I was answering this question from an academic point of view rather than a clinical point of view, I would not be able to rule out any of those three scenarios. Right? Okay? It's as simple as that.

What I can rule out is that a baby who's in 25% oxygen, who has a lung infection, isn't suddenly going to drop dead, if I could phrase it in that way with apologies to his family.

MYERS: Let me ask now -- or deal with what you have just said.

First of all, my question was: what evidence do you identify showing any expansion of the stomach that could create splinting of the diaphragm for 13 June? Do you have one piece of evidence that shows that?

EVANS: Air will dissipate rapidly, according to the pathologist, from the stomach following death. And the report I have read I think says that -- so... So therefore, the -- therefore you can't look at the X-ray post-mortem to tell you one way or the other, but this is a matter that I would prefer to defer to radiologists, particularly radiologists who are experienced in dealing with post-mortem X-rays and to defer to pathologists who are, after all, the people who, you know, carry out post-mortems.

MYERS: So there's not one particular item, not one image or piece of evidence you can identify which shows air in the gut as a result of being forced in on 13 June?

EVANS: Well, I think that from what Dr Arthurs said, and we've mentioned [Baby B] just now so let's go back to [Baby B] --

MYERS: I am just asking about you, Dr Evans (overspeaking) answer that question.

EVANS: Just a minute, just a minute. This is for radiologists anyway and they said the absence or presence of air does not confirm or exclude anything of this nature. In other words, this baby collapsed and died and none of the -- as Dr Gibbs said, none of the normal or the natural pathological processes that can lead to the deterioration of a baby's condition explains why he collapsed. Therefore I think a baby collapsing and where resuscitation was unsuccessful -- you know, that's consistent with my interpretation of what happened. And of course, it's not that difficult to conceal, right?

MYERS: Turning to air embolus, one of the things that I've suggested to you, Dr Evans, is that you are coming up with things as we go along to support an allegation against the defendant rather than basing it upon the facts. You have heard me put that to you, haven't you?

EVANS: Right, you have said that to me several times.

MYERS: (Overspeaking).

EVANS: That is incorrect actually.

MYERS: Right.

EVANS: Let me say something more. We're back with [Baby C] now, are we? Right.

MYERS: No, I'd like you to answer the question.

EVANS: Well, I will answer the question. When I reviewed these papers originally, this was in November 2017, there was no suspect named, known to me --

MYERS: I'm going to --

EVANS: Just a minute, I need to explain how I have formed my opinion because I do object to being accused of making things up. You know, it's part of -- I don't like that.

Right, so --

MYERS: Last time you were here, you went into quite a lot of detail about your involvement in the investigation.

I have asked you whether you are coming up with things to support the allegation as we go along. You say you haven't done.

EVANS: No, no, I am coming up -- my opinion is based on the clinical information I have received from the clinical notes

and, where necessary, backed up by information from medical people from other disciplines, like pathology, like radiology, who know more about this sort of stuff than I do. So therefore -- it's a team, I'm putting forward all this information as a result of my own opinion some of the time, my own opinion allied to the opinion of other people or other cases.

Again, we've heard about Dr Marnerides' pathology report. It's his report, you know, that's fine. As far as I know, I have not seen a pathology report from Mr Myers saying something different. That's not my call. That's not my call. Okay?

MYERS: You --

EVANS: The only pathology, the only independent pathology opinion I have seen in relation to [Baby C] is from Dr Marnerides. If there is a pathologist out there who wants to say different, that is nothing to do with me, that is up to Mr Myers and his team.

MYERS: Now, air embolus.

Just to remind the jury, we've had eight reports from you before today. Until you mentioned air embolus a couple of minutes ago, has that featured in any reports of [Baby C]?

EVANS: None at all, no, I have said that.

MYERS: Now, air embolus is something you've been interested in during your time with this case, isn't it?

EVANS: This trial, you mean, or other cases?

MYERS: During your assessment of this investigation it has been something you have looked at in other cases, hasn't it, other babies?

EVANS: Yes, yes, yes, yes.

MYERS: In that first report, right the way through to the most recent joint report, never once do you make a reference to air embolus, do you?

EVANS: No, that is correct.

MYERS: No. You've told us what you look for with an air embolus, Dr Evans. In this case you were provided with all the relevant clinical and pathological material before today, weren't you?

EVANS: Yes, yes.

MYERS: And you've been able to make those reports based upon that, haven't you?

EVANS: No, no, I have said -- yes, absolutely in relation to this particular case I think everyone's heard my evidence-in-chief with Mr Johnson. That is what, in my opinion, led to this baby's collapse. If pressed, which is fine, I accept all of this, to come up with alternative explanations, then I feel I am obliged to assist the court by saying what are other explanations.

From a mechanism point of view, air embolus is one of them. I have certainly not put it down in my report, but if pressed to ask for other opinions, sorry, other causes, you see, if pressed to ask for other causes, then, yes, this is something that I think needs to be shared with the jury.

MYERS: You just came out with that as we went along to try and support the allegation, didn't you, Dr Evans?

EVANS: You keep saying that and that is not correct.

MYERS: And again you are not independent.

EVANS: Again you're just being insulting, so there we are.

MR MYERS: Thank you, my Lord.

MR JUSTICE GOSS: Mr Johnson?

MR JOHNSON: No, thank you. Does my Lord have any questions?

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

That completes your evidence this afternoon. But you will be coming back later in the trial. Thank you.

MR JOHNSON: We're moving on to Dr Bohin's evidence next, my Lord. There is one issue that -- I have discussed it with my learned friend at lunchtime, but I just wanted to expand on that now.

MR JUSTICE GOSS: We'll let Dr Evans leave the witness box.

Thank you very much. Don't discuss this case or anything to do with any aspect of it with anyone, please.

EVANS: Yes, I understand, my Lord.

(The witness withdrew)

MR JOHNSON: If I could just have 5 minutes with Mr Myers to deal with this single issue, we can carry on, subject to your Lordship's view.

MR JUSTICE GOSS: I don't mind -- if it is only 5 minutes.

MR JOHNSON: Yes. It's just something that arose from the evidence this morning that I asked Dr Bohin to commit to writing, which has been done, and I just wanted to make sure Mr Myers saw it, albeit I could call Dr Bohin in chief and deal with it and...

(Pause)

Could we have 5 minutes, please?

MR JUSTICE GOSS: Right. We will do because it's only 3.45.

We can get some more work done this afternoon.

Thank you very much. Just a five-minute break for you.

(In the absence of the jury)

MR MYERS: My Lord, I'm grateful. It's a matter that's novel from this witness and it can be dealt with now in the course of her evidence, but it was important I saw committed to writing what it was she was going to say.

I can then deal with it tomorrow in cross-examination.

I'm grateful for the opportunity just to see precisely what was coming.

MR JUSTICE GOSS: Thank you very much. We'll do that then.

If you can complete the examination-in-chief by quarter past, well and good. If you can't, we will break off and continue tomorrow morning.

MR JOHNSON: Thank you.

(Pause)

(In the presence of the jury)

DR SANDIE BOHIN (recalled)

Examination-in-chief by MR JOHNSON

MR JOHNSON: Would you identify yourself, please, for the record?

BOHIN: I'm Dr Sandie Bohin.

JOHNSON: Thank you, Dr Bohin. You have been instructed to consider the case of [Baby C]; is that right?

BOHIN: That's correct.

JOHNSON: Did you produce -- have you produced three separate reports, the first dated 6 December 2020?

BOHIN: Yes.

JOHNSON: Is that in effect your substantive report in which you set out your opinions on this particular case?

BOHIN: It is.

JOHNSON: Thank you. For the record, have you also produced two further reports which confirm that you, after your substantive report, received further information but in effect that that information didn't change your view and also answering a couple of questions that were posed to you as a consequence of your initial report?

BOHIN: That's correct.

JOHNSON: Thank you very much.

Well, using your first report as a template, please, Dr Bohin, did you set out in writing under paragraph 2.3 the material that you received?

BOHIN: Yes, I did.

JOHNSON: Did that include the records of [Baby C], some of which the jury has already seen?

BOHIN: Yes, it did.

JOHNSON: X-rays, material from Alder Hey Hospital in Liverpool, and a report for the coroner and statements made by other medical practitioners, including Dr Evans, Dr Arthurs, the radiologist, and Dr Marnerides?

BOHIN: Yes, that's correct.

JOHNSON: Were you also given extracts from witness statements made by Dr Beech, Gail Beech, who the jury saw last week, and Dr Rylance, who's -- I think part of Dr Rylance's statement at least was read to the jury?

BOHIN: Yes, I did.

JOHNSON: Thank you very much.

As before, were you there -- was your function to rubber-stamp an opinion that you had or to consider that opinion and offer your own opinion insofar as it coincided with or dissented from that of Dr Evans?

BOHIN: My role was not to rubber-stamp anything. My role was to review the case and to come to my own conclusions and then to say whether my conclusions agreed with those of Dr Evans, whether they differed from Dr Evans or whether I found any new information.

JOHNSON: Thank you. As part of your review of the evidence, did you set out part of the chronology of [Baby C]'s life?

BOHIN: Part of it, not all of it. I set out what I thought were the important, pertinent facts.

JOHNSON: In particular, and I'm looking at paragraph 4.16 now, did you deal with an X-ray, a picture of which has been shown to the jury, an X-ray that was taken on 12 June following the insertion of a long line into [Baby C]?

BOHIN: Yes, I reviewed that X-ray.

JOHNSON: And the jury will recall this as being the image of the line having gone up through a vein in [Baby C]'s left leg, I think; is that right?

BOHIN: That's correct.

JOHNSON: Thank you. And did you remark on a feature of the X-ray in particular?

BOHIN: I stated in my report that the line looked to be low.

The X-ray was taken to look at the position of the long line, the line was in a low position, so not where the inserter would have intended, but it was in a usable position. I also noted a very distended, gas-filled stomach, with dilated, ie swollen, small bowel loops.

JOHNSON: So far as that was concerned, could you at the time see a nasogastric tube on the film?

BOHIN: Yes. I beg your pardon, I have written in my report that when I was viewing the images on the PC I have which is a

laptop, I couldn't see a nasogastric tube on that particular film. That film has been shown several times in this trial and it's clear that you can see a nasogastric tube on that X-ray when it's been projected.

It is in a very high position, so it's just where the gullet meets the stomach. So it isn't well down in the stomach, not in an ideal position. It sits very high in -- right at the end of the oesophagus, the gullet, where that enters into the stomach.

JOHNSON: Did you then summarise some of the observations of [Baby C] from that point on through to the time that he collapsed?

BOHIN: Yes, I did.

JOHNSON: And did you note the fact that -- and I'm looking at paragraph 4.25 of your report now -- that at 23.00 hours, late in the evening of 13 June, [Baby C] had been fed 0.5 of a millilitre of milk?

BOHIN: That's what's written in the notes. But I couldn't find actually any evidence of a nurse writing that down anywhere on an observation chart, but it is written in the notes that he was given half a millilitre of milk at that time.

JOHNSON: Yes. This is the matter that's been spoken of by Sophie Ellis; is that right?

BOHIN: Yes.

JOHNSON: And as you observe, on the feeding chart itself, and I think that is the chart on which there are notes of aspirates of black fluid or bile, that feed isn't actually -- hasn't actually been noted; is that right?

BOHIN: That's right.

JOHNSON: Did you then record your interpretation of the material that you'd been given, which was that at about 11.15, [Baby C] had had an apnoea, a bradycardia and had desaturated and that several minutes later, the medical team were called and that CPR was in progress when they arrived?

BOHIN: That's correct.

JOHNSON: You then set out in your report the treatment that was given to [Baby C] in order to try to resuscitate him; is that right?

BOHIN: Yes.

JOHNSON: You then move on in your report to your opinion and comment. That's really where I'd like to start if we can, please.

BOHIN: Yes.

JOHNSON: So looking at your report, it's section 5. What conclusions did you reach as to [Baby C]'s general position following birth?

BOHIN: I think in common with what we have heard from the treating clinicians, we know that [Baby C] was premature.

We also know that he was growth restricted. He was only half the weight that one would expect a baby of that gestation to be because of problems with the blood supply to the placenta. And those two things mean that [Baby C] is potentially at risk of complications, but actually, in his early days, he managed very well indeed. He was on some respiratory support in the form of CPAP. Latterly, the day before he died, he actually had improved to the point where he was taken off CPAP.

He clearly didn't like it, it clearly irritated him, and therefore the team chose a step down version of respiratory support in terms of Optiflow, which is I think less annoying for a baby, and therefore if they're not upset, they're likely to stay much more stable.

As well as that, he was actually taken off CPAP for a couple of times to have skin-to-skin with his parents, and so that isn't something you do if you are worried or concerned about a baby's condition, you wouldn't take them off CPAP. He managed very well.

So this was a baby who had known risk factors, but actually was not only doing very well but was actually improving in that he had been stepped down from CPAP to Optiflow and his -- the amount of inspired oxygen, the extra oxygen he was given, had also reduced.

So this wasn't a baby that was ill, this was a baby who was improving.

JOHNSON: Thank you. Did you note the fact that on an X-ray, there was evidence of an issue so far as his left lung was concerned?

BOHIN: Yes. [Baby C] clearly had an infection. His markers of infection were raised. His CRP was raised, not very raised, but raised. And in a baby of that gestation and size, that's an

alerting feature. The medical team treated him with antibiotics because of that and also carried out an X-ray, which clearly shows a left-sided pneumonia or changes on the X-ray compatible with a left-sided pneumonia.

So the treating team were quite clear that the pneumonia should be treated. And despite his small size, for a baby with pneumonia although he had that, he continued to improve. He came off his CPAP and actually went down on to Optiflow.

But yes, there were clear features of pneumonia but it was being adequately treated and he appeared to be responding to it.

JOHNSON: And what was the treatment? I know the jury have heard the evidence about what he was receiving, but in this context what was the treatment that would have addressed or dealt with the pneumonia?

BOHIN: The treatment he received was the standard treatment for babies in a neonatal unit and that's antibiotics and the Countess of Chester Hospital protocol was in keeping with national protocol, which was to use benzylpenicillin and gentamicin.

JOHNSON: Thank you. Taking that particular issue head on, which you do at paragraph 5.4 of your report, what conclusions did you come to so far as the interface between pneumonia and [Baby C]'s collapse?

BOHIN: Well, I'm very clear that [Baby C] had pneumonia, he had signs on his blood tests that indicated an infection, and an X-ray that clearly showed pneumonia. He was on respiratory support in any case, but a baby with pneumonia will -- certainly babies of that size will often not survive a pneumonia, but actually he was -- they will slowly deteriorate and by that I mean they will have an increased respiratory rate, they will have an increased oxygen requirement, they won't be stable on CPAP and will need to go on a ventilator. There's often signs of a very slow decline.

[Baby C] didn't show any of these things. As I say, he actually was getting better, despite his pneumonia.

So in fact, his respiratory rate was really very stable.

In effect, he was breathing not with two lungs because one lung was infected, so actually the gas exchange in that left lung would not be as good as one would expect because of the infection. And despite all of those things, he still managed very well, he managed to have cuddles out with his parents, and so my conclusion was, yes, he had a pneumonia, he was being

treated for that, but that was not what caused him to collapse and that his pneumonia didn't kill him.

JOHNSON: Thank you. If he was compromised in some way, what effect would the fact of his pneumonia have had on that?

BOHIN: It's difficult to say precisely, but in my view the fact that you've got an underlying infection and illness probably means that you're going to be less responsive to resuscitation. Because babies, unlike adults, don't suddenly go from being okay to collapsing on the floor.

Adults will commonly go -- do exactly that, they have a heart attack or a stroke and they go from being relatively well to being completely collapsed and unconscious. That's very uncommon in premature babies.

You normally get some sort of hint that something is amiss and there's an escalating level of concern. This didn't happen with [Baby C].

But because he had pneumonia, when he did collapse I think that made resuscitation really very difficult and I think that contributed to the fact that he didn't survive that resuscitation.

JOHNSON: So that deals, at least so far as we are concerned, with the issue of pneumonia.

Can I just move to other issues, please, which are set out at paragraph 5.6 onwards of your report.

We've heard that [Baby C] had -- well, there was a problem that caused [Baby C] to be born premature and that that put him at risk of NEC; is that right?

BOHIN: That's correct, yes.

JOHNSON: We've also heard that until about 15 minutes before his collapse, he hadn't been fed in effect for over 3 days.

BOHIN: That's correct.

JOHNSON: Or not fed enteral feeds, I should say, for over 3 days.

Is that standard practice?

BOHIN: It's standard practice for any baby where there has been a concern about the placental blood flow because we know that those babies are at high risk of necrotising enterocolitis, so

the rationale is that you just rest the gut and when babies are stable you give very small amounts of milk down the nasogastric tube in a very controlled way so that if the baby doesn't tolerate the feed for any reason, you can stop and reassess the situation. So this would be absolutely standard.

JOHNSON: Thank you. So far as the -- just going back to the issue that you spoke of earlier concerning the gas in [Baby C]'s stomach on the 12th, did you go to the records to see what, if any, evidence there was concerning whether or not that had been aspirated or what might have been the cause of that?

BOHIN: I did go to the records to have a look because babies who are on CPAP can accumulate gas in their tummy and in their gut. That can make the gut swell and in turn press up on the diaphragm. In order to minimise the effect of that, the nursing staff would aspirate the nasogastric tube and either they may get some stomach contents or milk, if a baby's being fed, or they may get copious amounts of air. It's usual practice to note down the volumes of air that you've aspirated to give the medical staff and other nurses an idea of how much air a baby is accumulating. I couldn't find any evidence that those volumes of air were recorded or if any gas at all was aspirated. They may have been by nursing staff, but they weren't recorded.

And the other thing that's a difficulty for me was that for babies not fed, if the nurses -- well, as well as aspirating the tube, the nursing staff certainly wherever I've worked would also put the tube on free drainage so they would leave the top of the nasogastric tube open so that air can come out on its own and either attach that to a bag or just leave it free. And also, actively aspirate every 4 hours or 2 hours, whatever is deemed appropriate.

There was only fleeting mention of the tube being on free drainage, so I don't know (a) if the tubes were aspirated regularly and air was aspirated or if the tube was on free drainage. And if neither of those things happened, then gas would accumulate within the stomach and would have caused that X-ray appearance.

JOHNSON: And this is gas from what source, sorry, just to be clear?

BOHIN: From the CPAP.

JOHNSON: That's the 12th. What about the 13th? Were the records any different so far as the information they imparted as to whether the NGT was being aspirated and/or whether it was on free drainage?

BOHIN: We know the nasogastric tube was being aspirated because there's evidence of 0.5ml of fluid that is written down.

There is no record if any additional air was aspirated.

Within the narrative, the nurse during the day has written that actually [Baby C] had two tubes replaced, two of the tubes were orogastric as opposed to nasogastric, so they went into his mouth and down into his tummy.

Two of those were replaced during the day because he was very active and, finally, a third tube, which was a nasogastric tube, was replaced.

What I don't know is when those tubes came out and when they were replaced or what the time frame was between one tube coming out and the next tube going in because, of course, if that happened over several hours or while he was out with his parents, air would accumulate in his tummy and have no way of escape and there isn't a record of that, I'm afraid. So it's difficult to know how effective the nurses were at trying to get rid of the accumulated air.

In the narrative there is mention of the tube being on free drainage, but it's not clear whether that was for the entire shift or just after the nasogastric tube was passed, which was when [Baby C] went on to the Optiflow from the CPAP.

JOHNSON: And that would have been after the X-ray film taken with the long line in --

BOHIN: Yes.

JOHNSON: -- and the bubble in the stomach, as it was described?

BOHIN: Yes.

JOHNSON: Taking a step back then and helping us with the possible causes of why it was [Baby C] had this bubble in his stomach on 12 June, what conclusions did you reach?

BOHIN: If the tube -- the nursing care of the nasogastric tube meant that the tube was not on free drainage and was not aspirated, then it could well have been down to accumulation of gas by CPAP. The alternative explanation is that there was a deliberate introduction of air down that tube.

JOHNSON: Yes. In that context does the views that were being expressed at the time, so for example by Dr Beech, who we heard from -- are they important or are they not important?

BOHIN: The medical staff at the time were clear that the abdomen was soft, that the baby was well, so they didn't appear to be concerned about the abdomen.

JOHNSON: Yes. I'm looking to paragraph 5.16 now, please. When you looked for a reason for [Baby C]'s collapse at about 11.15 or so on 13 June, could you find an explanation?

BOHIN: No. Babies like this don't just suddenly collapse. You get prior warning that something is amiss, they do not go from being stable to a cardiorespiratory arrest situation within minutes. So the kind of conditions that could cause problems within the gut I know [Baby C] didn't have, but in any case they would not have caused this sudden and catastrophic collapse which was unresponsive to resuscitation.

Premature babies do get infections and do become unwell. They rarely collapse in this way or it'd be very unusual for them to collapse in this way, but they usually are responsive to resuscitation and he wasn't.

JOHNSON: So in that context, in your view, did the infection which [Baby C] had -- was that the cause of his catastrophic collapse?

BOHIN: No. I think he died with his pneumonia, not because of his pneumonia.

MR JOHNSON: Thank you very much. Those are all the questions I have for you.

MR JUSTICE GOSS: Right. It's not going to be possible to complete your evidence this afternoon. So we'll break off there and resume at 10.30 tomorrow morning, please.

As I've said to you before, don't discuss this case or anything to do with it, particularly your evidence, with anyone. Thank you very much.

Ladies and gentlemen, 10.30 tomorrow morning, please, and remember your responsibilities as jurors.

(In the absence of the jury)

Housekeeping

MR JOHNSON: I have just realised that I forgot to ask about the things I told Mr Myers about before we started. If I may, I'll deal with that at the beginning tomorrow.

MR JUSTICE GOSS: Certainly, all right. Mr Myers, I think the clerk of the court will probably have spoken to you about the difficulties in relation to certain matters that you raised this morning. Perhaps you can -- it's not a pressing matter, I don't think, but if perhaps you could discuss the matter with the defendant.

MR MYERS: Yes, I will.

MR JUSTICE GOSS: And see what...

MR MYERS: We'll work together with the court to try to resolve this. I'm sure there is a way.

I wonder if I could just mention Friday morning.

I know Dr Bohin is here. It doesn't impact upon her evidence, it's about the timing, I don't know whether it is a matter we can raise with your Lordship now or at least start.

MR JUSTICE GOSS: Yes, certainly.

MR MYERS: We understand the desire to begin without any further loss of time at all. The problem we have is because of the circumstances we're working under with Ms Letby, it's a particularly compressed time on most days. I can give an example. Today, it's not always this way, but today she arrived at 9.15. At 9.40 she was in a position to speak to, having disembarked, as I understand it, had something to eat, because she can't before then, and we could then talk to her, all of which is necessary, and then of course there's the support that she receives, which is important and is an important part of her being able to -- at least for us and her to manage the situation so she can participate as she is doing.

MR JUSTICE GOSS: And the clothes changing business.

MR MYERS: There is a clothes change to be factored in as well as we go along. The problem is, we do understand why the court would be anxious to maximise any opportunity for a further half an hour, but it impacts upon a period that's actually quite an intense period of preparation for us. We don't mean to be difficult, my Lord.

MR JUSTICE GOSS: No, no, I know you're not trying to be difficult, you're just explaining the difficulties that you are operating under.

MR MYERS: Yes.

MR JUSTICE GOSS: Mr Johnson, I don't know if that's going to cause inconvenience if we have effectively three-quarters of a day or thereabouts rather than a full day on Friday.

MR JOHNSON: We'll work round it, my Lord.

MR JUSTICE GOSS: I'll tell the jury tomorrow morning that it'll be 10.30 as usual then. I know that there is a lot to be done.

MR MYERS: There is. Thank you, my Lord.

MR JUSTICE GOSS: I don't know whether jurors appreciate just how much out of court work is done in any case, but in this one in particular there is more than a lot. But I will mention that to them tomorrow so that they don't think that we operate 4 or 5-hour days.

MR MYERS: No. We're grateful for that, my Lord.

MR JUSTICE GOSS: All right. Thank you very much.

Will I get an up-to-date order as to what's coming for tomorrow?

MR JOHNSON: You will, my Lord.

MR JUSTICE GOSS: I thought I would, thank you very much.

MR MYERS: My Lord, we'll get to the end of the evidence relating to [Baby C] tomorrow. I know that the first witness to be called in person is scheduled to come on Thursday. To some extent that reflects the fact that there's a need certainly for us to move from one child to another. It's a significant change in information and preparation and a good deal to get ready. It's a matter we've raised with your Lordship before.

We also respectfully take the view it must surely assist the jury, in fact, to have a break between the children and the organisation of the case from the prosecution's point of view. Therefore, bearing in mind we can't start with a witness before Thursday, we would ask for whatever time we can have tomorrow, once we get to the end of the [Baby C] case, to prepare ourselves for the next phase. I'm not sure yet what time we will finish or what time that would be.

MR JUSTICE GOSS: You're saying that whatever time we do complete the evidence relating to [Baby C], then that's it for tomorrow?

MR MYERS: It would be. Again, it isn't wasted time.

There's a huge amount that's taking place.

MR JUSTICE GOSS: No, don't worry. I've got a lot to do as well.

MR MYERS: It's a benefit, we respectfully suggest, to everybody involved in the case, but certainly, I acknowledge, of benefit to us as well.

MR JUSTICE GOSS: Mr Johnson, you're obviously aware of this because the scheduling of the witness --

MR JOHNSON: Yes. We are in a position to be able to work round whichever decision your Lordship reached, frankly.

Ideally, for what I hope are obvious reasons, we want to adopt the same framework for presenting each of the cases and that also for obvious reasons involves the jury hearing the parents' evidence first and then the sequence of events.

We have a degree of flexibility built into the system in the sense that we can reverse the SoE and the parents' evidence if your Lordship thought we needed to get on. We'd prefer to deal with the parents first and, as a matter of fact, [Mother of Baby D] is required to give evidence, so we'd prefer to start --

MR JUSTICE GOSS: It makes sense to start that way rather than start further down the line and come back to that aspect. So no, that's what will happen.

MR MYERS: I'm grateful, my Lord, thank you.

MR JUSTICE GOSS: So you may take it that we will not go beyond [Baby C]'s case tomorrow. Thank you very much.

I should actually say for the benefit of the record, although the defendant was not present, nothing has been said that she can't be told about and it's nothing of any significance relating to anything other than timetabling of the trial.

MR MYERS: We shall relay that to her, my Lord.

MR JUSTICE GOSS: Thank you very much.

(4.21 pm)

(The court adjourned until 10.30 am on Wednesday, 2 November 2022)