Tuesday, 1 November 2022

(10.30 am)

(In the absence of the jury)

Housekeeping

... [Omitted] ...

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 the [Babies A & B] twins.

DR DEWI EVANS (recalled)

Examination-in-chief by MR JOHNSON

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

A. It's Dr Dewi Evans.

Q. 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]?

A. I was, yes.

Q. 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?

A. That is correct.

Q. Did you then write a full report, dated 31 May 2018?

A. That is correct.

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

A. Yes.

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

A. Yes, 8 October.

Q. 8 October, sorry, I beg your pardon.

A. Yes.

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

A. Yes.

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

A. Yes.

Q. Yet another report, of 29 October 2021, dealing with the platelet count again?

A. Yes. The previous one was 21 October.

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

A. Yes.

Q. -- concerning the admission forms which had been omitted from the material that you had previously been sent --

A. Yes.

Q. -- by the police.

A. Yes.

Q. 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 --

A. I was.

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

A. I did.

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

A. Yes.

Q. 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?

A. I have, yes.

Q. 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?

A. 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.

Q. 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?

A. 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.

Q. 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.

A. Yes.

Q. 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?

A. 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.

Q. 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?

A. 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.

A. 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.

A. Yes.

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

A. 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.

Q. 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.

A. Yes.

Q. 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?

A. 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.

Q. Yes.

A. Aspirates?

Q. It's the aspirates I was interested in.

A. Sorry.

Q. 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?

A. Bile is green. It's dark green.

Q. 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?

A. 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.

Q. Yes.

A. 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.

Q. But we have several other records, one of what was

suggested to Dr Gibbs to be a vomit --

A. Yes.

Q. -- 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?

A. 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?

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

A. 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.

Q. What's the significance of the absence of an increase?

A. 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.

Q. 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?

A. No, no.

Q. Why not?

A. 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.

Q. The next heading you gave us was one of infection.

A. Yes.

Q. Could you talk us through that, please?

A. 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.

Q. 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 --

A. 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.

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

A. 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.

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

A. In his lung.

Q. And what was the infection, what label would you put on it?

A. 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.

Q. 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?

A. Yes.

Q. So you start to -- you hope for the best but prepare for the worst so to speak?

A. That's absolutely correct, yes.

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

A. That is correct.

Q. 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?

A. No. The breathing issues cannot explain his collapse.

Q. 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?

A. No, that cannot explain his collapse either.

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

A. 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.

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

A. 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.

Q. Did we see that?

A. 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.

Q. Yes.

A. 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.

Q. 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?

A. 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.

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

A. 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].

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

A. 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.

Q. 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?

A. Yes.

Q. One on either side.

A. Mm.

Q. Beneath the lungs is a muscle called the diaphragm?

A. Yes.

Q. You said the diaphragm moves down as you breathe in?

A. Yes.

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

A. Yes, to suck oxygen, air, into your lungs, yes.

Q. 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?

A. It stops the diaphragm moving effectively.

Q. And the effect of that is what?

A. 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.

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

A. I have.

Q. 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?

A. I think I discussed it -- yes, I have discussed it with him.

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

A. 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.

A. That is -- the mechanics of that, yes, is correct.

Q. 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?

A. Yes.

Q. 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?

A. Yes.

Q. 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?

A. That's correct.

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

A. Yes.

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

A. Yes.

Q. 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?

A. 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.

Q. 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.

A. 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.

Q. 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?

A. 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.

Q. 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?

A. I think so, yes.

Q. 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?

A. That is correct.

Q. 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.

A. All of this is correct.

Q. So you agree he, in fact, was at great risk of unexpected collapse?

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

Q. Your words are --

A. 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.

Q. Are you saying --

A. 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.

Q. 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?

A. Yes.

Q. You were ready to acknowledge that then?

A. Yes.

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

A. Yes, yes, yes.

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

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

Q. 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?

A. Yes.

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

A. 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.

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

A. No, I've finished.

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

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

Q. 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.

A. 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.

Q. Saying you cannot exclude the role of infection in his collapse acknowledges that it may have played a part, doesn't it?

A. It may have -- it was a contributory factor. We've heard about the four main contributory factors earlier today.

Q. 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?

A. 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 --

Q. Can I just ask you something about that?

A. Please do.

Q. You are not just here to repeat what's in the report of Dr Marnerides, are you?

A. 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.

Q. 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 --

A. No, no --

Q. -- which you haven't made before today?

A. Sorry, this baby was put in harm's way.

Q. 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?

A. What I did initially was --

Q. Can I ask that first, please? Can you answer that question (overspeaking).

A. Ask it again.

Q. 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?

A. Not in this first report, no.

Q. 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?

A. No, I'm coming up with clinically proven mechanisms that explain why babies collapse.

Q. 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.

A. Yes.

Q. 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."

A. That is correct.

Q. "He was at great risk of unexpected collapse."

A. Yes.

Q. That was your considered opinion, wasn't it?

A. Yes, it was.

Q. 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?

A. 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.

Q. Is your team the other prosecution experts, Dr Evans?

A. No, no.

Q. Who's your team, so we can be clear?

A. 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.

Q. 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?

A. No, no, you've said that several times and we have all heard it.

Q. There are several reports, aren't there?

A. Yes.

Q. In none of which do you mention splinting of the diaphragm on the 13th, do you?

A. No, you have mentioned that and I have said, no, there isn't.

Q. You also in this report, paragraph 37, repeat that you cannot exclude the role of infection in his collapse, don't you? Paragraph 37.

A. It is a factor in his general status, yes.

Q. And that's the truth of the matter, isn't it? You cannot exclude infection from his collapse?

A. 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 --

Q. It's your evidence we're looking at now, Dr Evans.

A. Yes, I'm aware of that and that's my evidence.

Q. Let's move forward to about a year or so later, 26 March 2019, the next report. Paragraph 13.

A. I don't have paragraphs on my copy. Hang on.

Q. It's page 6 of 7.

A. I beg your pardon, I do.

Q. 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."

A. Yes, yes, I've seen that, yes.

Q. And you recognised then that infection may be a significant factor in his collapse, didn't you?

A. 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.

Q. 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?

A. No, he had an infection, he had pneumonia, it was -- on the monitoring that was present on the little baby, his monitoring was fine.

Q. 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?

A. 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.

Q. But you see, in March 2019, the possibility of someone forcing air down the NGT was in your mind, wasn't it?

A. It was actually.

Q. But not on 13 June; yes?

A. I don't know what you mean.

Q. Let me help. If we go to paragraph 14, please, Dr Evans. The jury --

A. Oh yes, yes.

Q. The jury will recall we've seen the abdominal X-ray for 12 June at 12.38.

A. Yes.

Q. Right.

A. Yes.

Q. 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."

A. That was a possibility that crossed my mind at the time.

Q. At the time, just at the time?

A. No, no, when I wrote this statement.

Q. 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?

A. I don't know what you mean by that, actually.

Q. 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?

A. Right. Whether --

Q. Can you answer that question first (overspeaking) help the jury with an answer, please, doctor.

A. 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.

Q. And your view, back in March 2019, was that there could have been deliberate harm done on 12 June via the NGT; yes?

A. Can't rule it out.

Q. Pardon?

A. There were two scenarios --

MR JUSTICE GOSS: "Can't rule it out", he said.

MR MYERS: I apologise, my Lord?

A. 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?

A. Yes.

Q. And Dr Marnerides was present at least for part of that meeting, wasn't he?

A. Yes.

Q. 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.

A. 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?

A. Yes.

Q. 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?

A. That was our conclusion at the time. I think this was a joint report, I think.

Q. Yes, but that's a conclusion between you and Dr Bohin, isn't it?

A. Yes.

Q. By the time you did that you had all the material you required on the care of [Baby C], didn't you?

A. Yes, I think so.

Q. 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?

A. That was a possibility, yes.

Q. 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?

A. Right. That follows, actually -- perhaps it wasn't --

it wasn't said specifically.

Q. Can we establish that first of all?

A. Yes, that is correct.

Q. You didn't?

A. That is correct.

Q. There are about 13 different points under [Baby C] --

A. Sorry, I haven't got a copy.

Q. Let me ask this: if you had wanted to say it was splinting of the diaphragm, nothing stopped you from saying that, did it?

A. If it wasn't said, it wasn't said.

Q. No, it wasn't said because it wasn't something that you had entertained as a possibility at that point, was it?

A. 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.

Q. Dr Evans, we're looking --

A. 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].

Q. 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?

A. That was a possibility, yes, it was.

Q. Yes, that was your view. At the same time you had nothing to say about splinting of the diaphragm on the 13th, did you?

A. On the 13th, I think he collapsed --

Q. 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?

A. No.

Q. 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?

A. 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.

Q. I'm suggesting to you, Dr Evans, that you are reaching for things that support the allegation rather than reflecting the facts.

A. Well, I disagree with you. I have just explained the facts --

Q. Right.

A. -- to you and that's it.

Q. 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?

A. Yes.

Q. 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?

A. Yes.

Q. 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?

A. 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".

Q. You've been listening --

A. 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.

Q. 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.

A. 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 --

Q. We can read it.

A. 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.

Q. You listened closely to the evidence of the witnesses dealing with this, didn't you?

A. We've discussed [Baby B] and, by the way, with [Baby B] I came to my conclusions regarding air embolus --

Q. Can we get to the question I am asking you about. Please help the jury with this --

A. 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."

Q. [Dr B] that morning, before you gave evidence, said "pink and active" referred to the baby, didn't she?

A. I can't remember that but it's not in the notes.

Q. 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?

A. 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.

Q. 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?

A. "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.

Q. You're not independent in this at all, are you, Dr Evans?

A. I beg your pardon?

Q. You're not independent as a witness. You keep saying you're an independent expert. You're not independent, are you?

A. 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?

A. As a complete sentence that makes sense, my Lord.

MR JUSTICE GOSS: What does it tell you?

A. 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?

A. 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?

A. 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?

A. If it says "baby pink and active" that makes sense.

MR JUSTICE GOSS: All right. There we are.

A. 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?

A. The nursing entry note is to black fluid, not to black bile. If we go to -- I think it's 1960.

Q. I'm asking you first of all: black bile aspirates are a cause of concern, aren't they?

A. 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.

Q. 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?

A. 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.

Q. If there's any vomiting associated with it, that's an additional concern, isn't it?

A. If there's vomiting, you need to record it, yes.

Q. 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?

A. 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.

Q. 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?

A. 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.

A. Sorry, signs?

Q. Of a blockage, abdominal blockage, include bile and vomiting, don't they?

A. Yes.

Q. They include abdominal distension?

A. They do.

Q. They may include bowels not opening?

A. Yes, they do.

Q. All of which, as it happens, are present in this case?

A. Yes, they do. Yes, they are.

Q. You'd expect in a baby, within 24 hours of birth, for air to be along the length of the gut, wouldn't you?

A. Not necessarily in a little prem of this size, no. Not really, no.

Q. 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?

A. 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.

Q. Large quantities of air do not get absorbed back into the gut wall?

A. You'd get some air absorption, I don't know how much.

Q. 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?

A. That's a lot of b.

Q. And it wouldn't be absorbed by a gut wall, would it?

A. I wouldn't have thought so. Most of it comes up through the tube, actually, up the nasogastric tube.

Q. 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.

A. Thank you.

Q. 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?

A. 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 --

Q. 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?

A. That was an opinion I've expressed, yes.

Q. Yes, that's right, you expressed it in your report --

A. Yes.

Q. -- I'm not going to read it out -- on 26 March 2019, didn't you?

A. Mm.

Q. Yes?

A. Yes, yes, yes, yes.

Q. And you expressed it in the joint report in August of this year?

A. Yes.

Q. 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?

A. I'm going to leave the interpretation of the autopsy to Dr Marnerides.

Q. 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?

A. Baby collapsed, died.

Q. 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?

A. The baby collapsed and died.

Q. Do you rely upon one image of that?

A. This baby collapsed and died.

Q. 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?

A. 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.

Q. I beg your pardon, can you repeat that?

A. 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.

Q. Have you ever come across a suggestion --

A. 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 the [Babies A & B] twins 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.

Q. 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?

A. 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.

Q. 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?

A. 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] --

Q. I am just asking about you, Dr Evans (overspeaking) answer that question.

A. 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?

Q. 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?

A. Right, you have said that to me several times.

Q. (Overspeaking).

A. That is incorrect actually.

Q. Right.

A. Let me say something more. We're back with [Baby C] now, are we? Right.

Q. No, I'd like you to answer the question.

A. 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 --

Q. I'm going to --

A. 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 --

Q. 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.

A. 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?

Q. You --

A. 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.

Q. 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]?

A. None at all, no, I have said that.

Q. Now, air embolus is something you've been interested in during your time with this case, isn't it?

A. This trial, you mean, or other cases?

Q. During your assessment of this investigation it has been something you have looked at in other cases, hasn't it, other babies?

A. Yes, yes, yes, yes.

Q. 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?

A. No, that is correct.

Q. 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?

A. Yes, yes.

Q. And you've been able to make those reports based upon that, haven't you?

A. 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.

Q. You just came out with that as we went along to try and support the allegation, didn't you, Dr Evans?

A. You keep saying that and that is not correct.

Q. And again you are not independent.

A. 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.

A. 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.

... [Omitted] ...