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IN THE CORONERS COURT FOR NORTHERN IRELAND

CORONER DOUGAN

IN THE MATTER OF AN INQUEST TOUCHING THE DEATH OF TROY COOPER BRADY

Aidan Sands KC (Instructed by Christopher O'Rawe, Coroners Service for Northern Ireland) on behalf of the Coroner
Stephen Ham BL (instructed by Mr Lawrence McMahon, Haugheys Solicitors) for the Next of Kin
Ronan Daly BL (instructed by Mr Steven Millar, Directorate of Legal Services) on behalf of the Belfast Health and Social Care Trust (BHSCT)
James Milliken BL (instructed by Ms Leigh Linton, Carson McDowell) on behalf of Dr Sharma

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Introduction

[1] The inquest proceeded in Laganside Courts on 8, 9, 10, 11 April and 27 September 2024. During the inquest, I received evidence from a number of witnesses, and I considered a number of statements admitted under Rule 17, together with voluminous hospital notes and records and expert reports. It is not possible to recite all the evidence, although all the evidence has been considered in its totality, before arriving at these findings.

Evidence

[2] The Deceased, Troy Cooper Brady of 90 Drumurrer Lane, Coalisland, died on 25 August 2016 in Craigavon Area Hospital.

[3] Mrs Jana Brady (known as Jane), mother of the Deceased, gave evidence to the inquest. This was her first pregnancy, and she was booked for Midwifery Led antenatal care. She was given an estimated date of delivery of 5 October 2016. Mrs Brady attended all her scheduled appointments and was within the care of the Community midwives Coalisland. In 2007, Mrs Brady had a LLETZ procedure of her cervix.

[4] On 13 July 2016, at 28 weeks gestation, Mrs Brady attended Craigavon Area Hospital as a self-referral, having experienced stabbing pains in her vaginal area. During examination, she was informed that her baby was in breech position. She then attended her scheduled appointments with community midwives on 27 July 2016 and 9 August 2016.

[5] On 19 August 2016, at 33+2 weeks gestation, Mrs Brady's waters broke around 10:00 hours. Staff in Craigavon Area Hospital told her not to rush, and Mrs Brady and her husband, Mr John Brady, arrived at the hospital around midday.

[6] At 13:40 hours, a midwife confirmed that her waters had broken and a CTG was commenced. A Registrar, Dr Hinds, arrived around 14:40 hours and conducted an examination and assessment, confirming that Mrs Brady was 3cm dilated. An ultrasound scan confirmed that the Deceased was lying in breech position. Mrs Brady told the inquest that, at no time, was she informed that her delivery was high risk, due to the Deceased lying in breech presentation, and having spontaneous pre-term rupture of membranes.

[7] Mrs Brady told the inquest that Dr Hinds proceeded to explain two types of deliveries -vaginal and caesarean section. Mrs Brady informed Dr Hinds that, as a first-time mother, she did not know which type of delivery was the best for her and her baby, and that her only concern was the safety of her baby. Mrs Brady stated that Dr Hinds highlighted the risks involved in a caesarean section for mother and baby, "all she said was the most common was infection." Mrs Brady was very clear in evidence that Dr Hinds said that she did not need a caesarean section, as her baby was only 33+2 weeks, and that a vaginal delivery would be better and that the baby would be coming out bottom/legs first "and she thought that vaginal breech delivery would be the better and safer option." Mrs Brady denied that Dr Hinds ever mentioned Royal College of Obstetricians and Gynaecologists (RCOG) guidance for pre-term breech in the discussion. Mrs Brady stated that she informed Dr Hinds that she did not mind proceeding with a caesarean section as long as her baby was safe. Dr Hinds then left to seek advice from her colleague.

[8] In Mrs Brady's Maternity Record there was a Birth Plan form which was not completed. When asked if methods of delivery was something she had thought about, Mrs Brady replied, "I had nothing in my mind. I went to hospital to ask for advice. I was hoping that the doctors would be able to decide, and I was not sure what was going to be the best option for my baby, in a safe way. I left decision to the doctors because I had no idea what should be the best option on how to deliver my baby at that stage."

[9] Dr Hinds returned after a short time, and informed Mr and Mrs Brady that, they, meaning the clinicians, were going to proceed with a vaginal delivery. At this point, Mr Brady asked her if there was any risk of a head injury. Dr Hinds replied that there was not, as the baby was only 33+2 weeks and should come out easily. As she said this, Mrs Brady recalled Dr Hinds making a sliding motion, "gestures" with

her hands. Mrs Brady thought she meant that "he will slide out easily, that he's so small." Mrs Brady told the inquest that Dr Hinds did not discuss head entrapment or the respective risks, benefits or merits of the vaginal delivery and caesarean section.

[10] Mrs Brady was of the view that she and her husband were not given a choice and that the decision was made for them. She commented, that after the conversation with Dr Hinds, "I was content, because I believed and I trusted them, because that was the reason why I went to hospital, to seek advice as to what I should do, because as I mentioned at the start, I wasn't sure what was the best, the mode of delivery and I just left it on them, because I didn't know what it's going to be the safest way to deliver my baby." She stated that vaginal breech delivery "was their decision, not mine." "I would go for the mode of delivery that my baby will be safe. As a mother, I would not care about myself." She explained that her memory of her interactions with Dr Hinds was very clear. Mrs Brady explained that there was no discussion about position when giving birth, she stated, "I thought that every woman in delivery, they are lying in lithotomy position, I did not know that it could be some kind of manoeuvres as I was on all fours. I was not aware of it. I did not know how to deliver my child."

[11] Mrs Brady was taken to the delivery suite and allocated room number seven. Pain relief was discussed, and Mrs Brady was given gas and air and an injection. Staff Midwife Barr examined her and informed her that she was 3cm dilated. At approximately 17:00 hours, Dr Sharma, arrived in the room and introduced himself as her Consultant who would be performing the delivery. At 18:55 hours, Dr Sharma returned and advised that he was happy to continue with the current management plan. Mrs Brady stated that, at no time did Dr Sharma ever discuss delivery options or the risks involved with those options.

[12] At 20:30 hours, Mrs Brady was introduced to Staff Midwife Herbert who took over her care. Around this time, Mrs Brady's mother-in-law, Siobhan Brady arrived and assisted her to the toilet. She was having contractions and feeling severe pressure in her lower back and was unable to pass urine. Mrs Siobhan Brady asked Mrs Brady if she felt like pushing, and Mrs Brady replied that she did. Sometime later, Mr and Mrs Brady were informed that Mrs Brady would be getting an injection to mature the baby's lungs at 02:30 hours.

[13] Mrs Brady continued to feel very uncomfortable and as she was unable to pass urine a catheter was going to be inserted. However, before this occurred, Staff Midwife Herbert discovered that the Deceased's bottom was visible, and she advised that the baby was ready to come out. Mrs Brady did not recall Staff Midwife Herbert conducting a vaginal examination at this stage. Staff Midwife Herbert then adjusted the bed and stirrups for delivery. Mrs Brady was placed in the stirrups and was lying on her back and Staff Midwife Herbert told her to push.

[14] A short time later, Dr Sharma, arrived in the room. Dr Sharma told Staff Midwife Herbert that he wanted Mrs Brady to deliver the baby in the all fours position. Staff Midwife Herbert asked Dr Sharma "why?" and Dr Sharma replied that a recent study suggested that you can deliver better on all fours. Dr Sharma and Staff Midwife Herbert continued to disagree as to which position Mrs Brady should be in to deliver her baby. Mrs Brady felt that there was a sense of conflict in the room, and she then intervened by asking what position did they want her to be in as she was having contractions and in a lot of pain. She recalled that Dr Sharma insisted on her delivering on all fours. Mrs Brady stated that prior to this, no one had ever mentioned about the possibility of her delivering in the all fours position.

[15] Dr Sharma then took over the delivery and the bed had to be adjusted, and Mrs Brady moved to all fours and began to push under Dr Sharma's instructions. After some time, Dr Sharma freed the Deceased's legs and then torso and then shoulders. Mrs Brady described how, by this stage, the Deceased was stuck, and Dr Sharma was trying to get the Deceased out by pulling him by the shoulders, or what felt like a "pulling sensation." She stated that "I was on all fours and I obviously felt my baby hanging out of me…I felt pressure trying to get his head out." After a few minutes, the Deceased was still not advancing and Mrs Brady described Dr Sharma as appearing desperate. Mrs Brady told the inquest that the Deceased's body was hanging by his neck at this time. Dr Sharma then told Mrs Brady to move position and lie on her back to try and get the Deceased's head out. During this manoeuvre, Mrs Brady described the Deceased as still hanging by his neck from her vagina. Mrs Brady had to wait for the bed to be set up at the stirrups and then she moved to the edge of the bed and put her legs in stirrups.

[16] Dr Sharma tried to deliver Deceased's head and Mrs Brady was told to push, but she could not, as she had no contractions. Dr Sharma remained at the bottom of the bed. She described him as appearing to be "in a trance" and that he looked at her as if he did not know what to do. She then described how Dr Sharma began to pull on the Deceased's shoulders, which had no effect. Dr Sharma then injected Mrs Brady and proceeded to cut her. Again, Mrs Brady described how he then tried to release the Deceased's head by pulling on his shoulder several times, however this did not work. Dr Sharma then attempted to insert forceps, which he finally did so, "it felt like tugging." Dr Sharma then pulled the forceps, and after a few attempts, the Deceased's head was delivered. Mrs Brady recalled how the Deceased's head appeared to be dented, and his neck was very red, and he did not cry, he was lifeless. The Deceased was then moved to a cot and the midwives began performing CPR.

[17] Mrs Brady told the inquest that the Deceased was moved to the neonatal unit, where he remained from his birth on 19 August 2016 until his death on 25 August 2016 when ventilation was stopped at 01:30 hours and there were no detectable signs of life at 03:25 hours.

[18] Mrs Brady told the inquest that she went on to have three sons, all of whom were born by elective caesarean section. She described how the Deceased was and is much loved and remembered by the Brady family. Mrs Brady articulated how the family have suffered a grave loss and that the pain gets harder, not easier, with the passage of time. She stated that they have been robbed of their son, and their sons of their brother.

[19] Mr John Brady, the Deceased's father, gave evidence to the inquest. On 19 August 2016, he went to work as normal. At around 10:00 hours, he received a telephone call from his wife explaining that her waters had broken. He then collected his wife and travelled to Craigavon Area Hospital. Mrs Brady was examined by a midwife at 13:40 hours and Dr Hinds arrived at 14:40 hours. Mr Brady told the inquest Dr Hinds spoke about two types of delivery – vaginal delivery and caesarean section. Mr Brady was clear in his evidence that Dr Hinds spoke about the risks involved in caesarean section for mother and baby, in particular infection, and explained that Mrs Brady did not need a caesarean section, as the Deceased was only 33+2 weeks and that vaginal delivery would be better. Mr Brady stated that his wife explained to Dr Hinds that her only concern was her baby's safety and that she was happy to have a caesarean section. Dr Hinds returned later and explained that they were going to proceed with a vaginal delivery. Mr Brady asked Dr Hinds directly if there any risk of a head injury and Dr Hinds replied no, as the Deceased was only 33+2 weeks and should come out easily and made a sliding motion with her hands. Mr Brady was clear that Dr Hinds did not discuss head entrapment or the respective risks and benefits of vaginal delivery and caesarean section, commenting "there was no discussion."

[20] In the evening, Mrs Brady was then taken to the delivery suite and Mr Brady's mother and sister arrived. Mrs Brady began to complain of pain and being unable to pass urine. At around 21:30 hours, Staff Midwife Herbert was preparing to insert a catheter when she stated that the Deceased's bottom was visible and that the baby was ready to come out. Staff Midwife Herbert was preparing Mrs Brady when Dr Sharma arrived. Dr Sharma told Midwife Herbert that he wanted Mrs Brady to deliver the baby on all fours. Like Mrs Brady, Mr Brady heard Staff Midwife Herbert ask Dr Sharma why this was and that he made a comment about a recent study, and he referred to the Royal Victoria Hospital. Mr Brady stated that Dr Sharma and Midwife Herbert continued to argue and there was an obvious conflict when his wife intervened.

[21] Dr Sharma then took over, and the bed was adjusted and Mrs Brady moved to all fours. Mr Brady stated that he was behind his wife, at her feet, to the right hand side, and Dr Sharma was to the left. Mr Brady agreed with his wife's evidence that, Dr Sharma freed the Deceased's legs, then torso and shoulders. Dr Sharma tried to get the Deceased out by pulling him by the shoulders and a few minutes passed. It was apparent to Mr Brady that the Deceased was stuck. Mr Brady stated there were around seven other people in the room and they all appeared worried. He described how the Deceased was hanging by his neck at this stage, "my recollection is that he

was out to his head when Jane was on all fours." Mr Brady stated that, it was in this position, that Dr Sharma "put his two fingers at both sides of his neck and his hand underneath and a couple of pulls to try and get him out."

[22] Dr Sharma then told Mrs Brady to move position and lie on her back and he tried to deliver the Deceased's head and pulled on the Deceased's shoulders. Mr Brady told the inquest that "100% he was pulled. He was pulled in a position like two fingers round his neck and one hand underneath him and pulled about four times like that."

[23] Dr Sharma then cut Mrs Brady and tried to release the Deceased again by pulling on his shoulders. Dr Sharma then moved to forceps and that it took about "two or three" attempts before they went in. He then pulled on the forceps, after a few attempts, the Deceased's head was delivered. The Deceased was moved to a cot and Mr Brady saw the midwives and doctors conducting CPR. He kissed the Deceased before he was placed in an incubator for transfer to the neonatal unit. On 21 August 2016, Mr and Mrs Brady met with Dr Sharma who informed them that he could not understand what had happened at the Deceased's delivery. Mr Brady asked him whether he should have carried out a caesarean section, Dr Sharma replied, "that is not how breech delivery is done."

[24] Mr Brady told the inquest that he visits his son's grave every day on his way home from work. He described how the family have suffered a tremendous loss and how the impact of that loss continues each day. As a family, they hope and wish, that no other family has to suffer and experience the hurt and anguish they have suffered as a result of the loss of the Deceased.

[25] Mrs Siobhan Brady, the Deceased's grandmother and Mrs Sarah McMahon, the Deceased's Aunt, both give evidence to the inquest, which was admitted by way of Rule 17. Both Mrs Brady and Mrs McMahon described how, on the evening of 19 August 2016 they travelled to Craigavon Area Hospital to visit Mrs Brady who was in labour. At around 20:30 hours, Mrs Brady was allowed into the delivery suite where she explained her anxiety to Staff Midwife Herbert regarding the fact that the Deceased was lying breech, and that Mrs Brady was small in stature and had a tiny frame. She stated that Staff Midwife Herbert assured her that everything was in order and that the baby was early in gestation and that there would be no complications. Mrs Brady then assisted her daughter-in-law to the bathroom, where she was unable to pass urine. Mrs Brady stated that she expressed her concern to Staff Midwife Herbert about her daughter-in-law's condition.

[26] Mrs McMahon and then went in to see Mrs Brady, who was still complaining of being uncomfortable and in pain. During this time Mrs Brady telephoned her sister, who is a retired midwife, for advice and she reassured her saying that she should not worry and that Mrs Brady would likely have a caesarean section, and that the baby would be taken to the neonatal unit.

[27] Mr Brady told both his mother and his sister that it could be a long night, so they left and drove to the nearby Tesco to get drinks and snacks and to buy a baby card. When they arrived at Tesco, Mr Brady telephoned in a distressed state and told them to come back to the hospital and that the baby was arriving. They arrived in the waiting area of the delivery suite, and they described medical staff were running everywhere and it was clear that there was a potentially difficult situation, but they were unaware that it related to the Deceased. Eventually, Mr Brady came out extremely distressed and stated, "he's born, it's not good, he's dead, he's dead." Both Mr and Mrs Brady were extremely distressed and explained all that happened during the delivery.

[28] Mrs Brady explained that they are a close family, and they supported John and Jane through their grief. It was a very difficult and sad time. She stated that the Deceased's death was a huge emotional blow to the whole family.

[29] Dr Lynsey Hinds, Specialty Doctor in Obstetrics and Gynaecology, gave evidence to the inquest. At the time, she was working as a Specialist Trainee level 6 (ST6) in Obstetrics and Gynaecology. Dr Hinds first met Mrs Brady at 14:40 hours on 19 August 2016 in the Maternity Admissions and Assessment Unit. Dr Hinds recorded that that Mrs Brady was a 30 year old Primigravida (in her first pregnancy) at 33+2 weeks gestation and had attended with a history of leaking fluid vaginally from 10:00 hours that day. She was having mild contractions at this stage, four in every 10 minutes.

[30] Dr Hinds examined Mrs Brady and noted that the baby was breech presentation, and with an ultrasound scan, she confirmed a frank breech presentation. She then conducted a speculum examination, as she was in early preterm (less than 37 weeks) labour, which confirmed spontaneous rupture of membranes, light meconium, with the cervix 3cm dilated, 0.5cm long and the breech was at spines-2. The fetal heart rate trace was normal at this time.

[31] Dr Hinds told the inquest that she then discussed the options of vaginal breech delivery and caesarean section with Mr and Mrs Brady. She stated that she began by explaining that there were risks with both options and if Mrs Brady had been term (ie >37 weeks gestation) with a breech presentation in labour, then she would be recommending a caesarean section, as current guidelines state that this is safer for the term fetus. Dr Hinds explained that she then discussed that with preterm breech presentation, current guidance from RCOG, does not recommend routine caesarean section, but instead that the mode of delivery should be considered on an individual basis. At this point, she left Mr and Mrs Brady and went to speak with Dr Sharma, the Consultant on-call, to seek his opinion on what he felt was safest in Mrs Brady's case.

[32] Dr Hinds told the inquest that she took Mrs Brady's notes and met Dr Sharma in the delivery suite at the desk and discussed the history and examination findings with Dr Sharma, "I said, "This lady wants what's safest for her and her baby, what

would you advise? It was a complex, high risk case and that's why I was taking his advice." Dr Hinds stated that Dr Sharma replied, "his words to me were, "I'm happy for her to have a vaginal birth."

[33] Dr Hinds explained that she relayed what Dr Sharma had said to Mr and Mrs Brady and discussed the two options again, this time, in more depth. Dr Hinds stated that the discussion, before and after her conversation with Dr Sharma, was lengthy. Dr Hinds recalled saying, "Dr Sharma is happy that this is a safe option for you and your baby. Our Royal College state that it is a safe option for you and your baby. You avoid the risks of major surgery and the risks in future pregnancies." She stated that she discussed how the main risks of vaginal breech delivery were to the fetus, speaking specifically about the small risk of head entrapment associated with this mode of delivery and how exactly this can occur, by the body of the baby being delivered through an incompletely dilated cervix, with the head getting stuck inside. Dr Hinds maintained that Mr and Mrs Brady were made aware of the potential serious consequences for the fetus if this did occur, but that she also told them that there were different manoeuvres that could be carried out if head entrapment occurred, such as cutting the cervix and use of forceps. She explained, "what she said to me and what her husband said is, what all my patients say, "we want what is safest for our - for me and my baby" "and I wanted what was safe for her and her baby that day." Dr Hinds disagreed with Mrs Brady's evidence that she wanted what was best for her baby before herself, maintaining that "she and Mr Brady wanted what was best for her and her baby…I believe they had a massive amount of information to take in that day. I believe they were in shock that their baby was coming early, and I don't accept their recollection of events."

[34] Dr Hinds went on to say that she discussed that the main risks of caesarean section were to the mother. Common risks of infection or haemorrhage and the more uncommon risks of damage to internal organs (bladder/bowel/ureters), venous thromboembolism and hysterectomy, were all included in the conversation. She stated that she also mentioned that caesarean section does increase long-term risks for future pregnancy such as uterine rupture and low-lying placenta. Dr Hinds stated that the risks of caesarean section to the fetus were also discussed, such as fetal injury/laceration and the increased risk of respiratory distress in the neonate.

[35] Dr Hinds told the inquest that, although all of these risks were not listed individually in Mrs Brady's notes and records, by her, and that, in fact, the notes lack any detail other than, "risks discussed re vaginal breech delivery and small risk of head entrapment, risk of c/s discussed", this was her clear recollection of what she discussed with Mr and Mrs Brady that day and would be part of her normal practice. She explained at length that she had various roles in the hospital that day, and "my notes had to be concise that day. I wrote what I thought was most important out of our discussion." Dr Hinds accepted that this important discussion should have been documented in more detail, "I do accept that, but I would like you to take into consideration the stresses of a busy unit." Dr Hinds advised that RCOG guidance in 2017 recommended checklists for the counselling process in vaginal

breech deliveries to aid clinicians with this process, which has since been implemented in the Trust.

[36] Dr Hinds told the inquest that following the conversation, Mrs Brady decided to proceed with vaginal breech delivery, and she was transferred to the delivery suite. When asked whether she thought Mr and Mrs Brady understood all of the information in order to make an informed decision, Dr Hinds stated, "I felt at the time they understood it. I gave them time to have a quick chat, and they were happy. I also asked Dr Sharma to see them when they were being transferred to the delivery suite. As soon as they left the Assessment Unit he was informed. I did think that he would go and see them and make sure they were definitely happy." This was the last time Dr Hinds saw Mrs Brady. Following Mrs Brady's transfer, Dr Hinds informed Dr Sharma of Mrs Brady's decision to proceed with the vaginal breech delivery and she asked him, as Consultant on-call, to review Mrs Brady.

[37] Dr Hinds told the inquest that she recalled seeing a delivery in the all fours position around 2008-2009, under Dr Niamh McCabe, Consultant Obstetrician, in the Royal Maternity Hospital, however, she has never practiced it in her own career.

[38] Staff Midwife Rebecca Barr gave evidence to the inquest. At 15:00 hours on 19th August 2016, she was the midwife responsible for Mrs Brady's care. Upon reviewing Mrs Brady's notes, Staff Midwife Barr noted that Dr Hinds recorded that the plan was for vaginal delivery, steroid administration, CTG and intravenous antibiotics. Staff Midwife Barr stated that Dr Hinds had documented at 14:40 hours that the risks of both vaginal delivery and caesarean section had been discussed and that Mrs Brady wished to proceed with vaginal delivery. She told the inquest that "obviously it's a high risk delivery, and as with being newly qualified, I was aware of the most up-to-date evidence based practice, and I was aware that the Royal College of Gynaecologists, for a pre term breech delivery didn't give clear guidance that one option was safer than the other, it had to be on an individual basis."

[39] Staff Midwife Barr administered antibiotics and observed the CTG readings. A vaginal examination showed that the cervix was 3cm dilated. At 17:15 hours, Dr Sharma entered the room and had been updated on the findings and he advised that the plan of care was to continue. At 18:00 hours contractions were now 1-2 in every 10 minutes, lasting 30 seconds of mild strength. Intravenous fluids were erected after discussing care with Dr Hinds at 18:40 hours. At 18:55 hours Dr Sharma advised that the plan was to continue with current management. Contractions were noted to be more regular, and the second dose of intravenous antibiotics were administered. Staff Midwife Barr then handed over Mrs Brady's care to Staff Midwife Herbert.

[40] Staff Midwife Mary Dawson gave evidence to the inquest. At 15:30 hours she relieved Staff Midwife Barr for a 15 minute break and took over care of Mrs Brady. She recalled "in this case because it was unusual, I did review the notes to ascertain that Mrs Brady was content to proceed with the vaginal birth" and to ascertain the

documentation surrounding the discussion that had taken place with Mrs Brady. She noted that it was documented in the notes by Dr Hinds that this discussion did take place. Staff Midwife Dawson explained that she had witnessed Dr Hinds consent patients and that "She's very meticulous, she is lengthy in her consent process, it's her custom and practice." She went on to state "if there was no documentation in the notes I would have went to get a doctor, but the fact that there was no concerns raised by the family, I didn't feel the need to question any further."

[41] Staff Midwife Dawson told the inquest that, at the time, she had no experience of a vaginal breech delivery in a preterm baby, and she had no experience of all four's delivery.

[42] Dr Rohit Sharma, Consultant in Obstetrics and Gynaecology, gave evidence to the inquest. At the time, Dr Sharma was working as a Consultant in Craigavon Area Hospital, having been appointed to this role on 4 July 2016. On 19 August 2016, he was the Consultant Obstetrician on call.

[43] Dr Sharma explained that his first involvement in Mrs Brady's care was at approximately 14:40 hours, when Senior Registrar (ST6) Dr Hinds informed him about the case, though he did not recall that this was in person, according to Dr Hinds. Dr Hinds explained that Mrs Brady had ruptured membranes since 10:00 hours and was having mild tightening's of the womb (at a rate of four tightening in 10 minutes). The baby was in extended breech presentation, meaning the baby's hips were flexed and his legs were extended at the knee joint. Dr Sharma understood that, on vaginal examination by Dr Hinds, Mrs Brady's cervix was found to be 3cm dilated. Fetal heart rate monitoring by CTG was normal. Dr Sharma agreed with the comment that this was a high risk birth "because of the rupture of membranes at 33 weeks, it's a high risk birth and that's why she was looked after in the labour ward right from the start."

[44] In relation to the choice between having a normal vaginal delivery and a caesarean section, Dr Sharma stated that this is the patient's choice. In relation to who can advise patients about the options for delivery, Dr Sharma explained that there are guidelines to be followed, "I have to make sure the person who is going to speak to the patient is appropriately trained and knows exactly what the procedure involves and make sure that they know the understanding of both options. I have worked with Dr Hinds over the years as a colleague as well. She was an experienced trainee, and I had no doubt in her capacity and ability and skills of counselling Mrs Brady's appropriately."

[45] Dr Sharma told the inquest that Dr Hinds asked for his advice on whether to offer vaginal breech delivery. She stated that Mrs Brady was open to both options and that she was seeking guidance. At inquest, Dr Sharma explained that Dr Hinds was asking him whether they can offer her vaginal birth and when asked whether it appeared therefore that she must have come to a decision that she wanted to offer a vaginal birth, he replied "correct, yes" but he could not be definitive. Dr Sharma

told the inquest that, as there was no contraindication, he agreed to offer vaginal breech delivery, as an alternative option to caesarean section. He then asked Dr Hinds to offer steroids for fetal lung maturity and intravenous antibiotics as per NICE guidelines. Dr Sharma then understood that Mrs Brady was transferred to the labour ward for continuous fetal heart rate monitoring.

[46] At no time during his subsequent interactions with Mrs Brady did Dr Sharma confirm her choice for vaginal breech delivery, commenting, "reflecting on it, I should have gone through this, even to have speak to Dr Hinds as well, whether she was happy with the counselling…I don't know why, it just slipped out of my mind but, in hindsight, I should have discussed it with the couple at the time" and whilst "I probably would have gone through the same risks and benefits which Dr Hinds has gone through, for good practice, I should have discussed with Mrs Brady and her family." Dr Sharma accepted that, as the most senior obstetrician present, he should have had and documented the discussion and he accepted that the Craigavon Area Hospital "Integrated Maternity Women's Health" (August 2008) states "such cases should be individually assessed by the most senior obstetrician and after full discussion with the woman and her partner a decision made on the most appropriate mode of delivery" for "term breech labour" (p56) although the Deceased's case was preterm breech labour. Dr Sharma explained that for elective cases, he now does his own consent.

[47] There was some discussion around whether a caesarean section could have been conducted if Mrs Brady had opted for it. Dr Sharma stated that his approach would have been to provide drugs to mature the lungs and then wait and see. He agreed that at 19:15 hours there was evidence that the labour had escalated, and that Mrs Brady was going into established labour, which is when arrangements would have been made for caesarean section. Dr Sharma would have proceeded to caesarean section as a category 3 meaning "there is no risk to the life, but we have to go for caesarean section", with the caveat that staff, in particular, an anaesthetist, were available. He agreed it could have been undertaken within an hour, and the Deceased born thereafter, depending on available staff.

[48] At 17:15 hours, during evening labour ward round, Dr Sharma met Mr and Mrs Brady for the first time. He was updated by Staff Midwife Barr about her progress. He told the inquest that, whilst it was not documented, he would have had a handover with Dr Hinds around 17:00 hours when he found out that Mrs Brady was for vaginal breech delivery.

[49] At 18:55 hours, Dr Sharma reviewed Mrs Brady in person for a second time. She had mild tightening's of her uterus (1-2 in 10 minutes) and fetal heart monitoring was normal. He advised that a second dose of steroids be administered at 02:30 hours.

[50] At 21:30 hours, Dr Sharma was asked to attend Mrs Brady as her cervix was fully dilated and the Deceased's presenting part was at perineum. Dr Sharma

arrived at 21:35 hours. Staff Midwife Herbert, Sister Laura O'Neil, and Registrar Dr Jayne Creighton, were present in the room. Dr Sharma told the inquest that he undertook a vaginal examination, despite this not being recorded in Mrs Brady's notes, and that Mrs Brady's cervix was fully dilated, and the presenting part was at perineum. Mrs Brady's recollection was that the last vaginal examination occurred around 16:00 hours.

[51] Dr Sharma explained to the inquest that, in order to relieve pressure from the umbilical cord and to increase pelvic dimensions, he asked Mrs Brady to adopt the all fours position. Dr Sharma stated that he recalled discussing the rationale for this approach with Staff Midwife Herbert at the time. Dr Sharma explained to the inquest that he did recall saying "recent study", meaning a study over a period of three or four years, developing from 2012. He explained that all fours opens up the pelvis and relieves cord compression.

[52] Dr Sharma referred to the RCOG Green-top Guideline No.20b "Management of Breech Presentation" which was in draft form from April 2016 and published in March 2017. That guideline states that during a vaginal breech delivery, "an all fours position may be adopted for delivery and should depend on maternal preference and the experience of the attendant." The RCOG Guidance which applied at the relevant time, Guideline No. 20b (December 2006, Renewed 2010), in relation to the maternal position which should be used for breech delivery, outlined, "women should be advised that, as most experience with vaginal breech birth is in the dorsal or lithotomy position, that this position is advised" (para 6.5). This Guideline did not give any timeframes for delivery. Dr Sharma explained that the draft guidance reflected the latest research and evidence and that is what he was applying in his practice at the time. He explained that the Royal Maternity Hospital was the first to reintroduce the vaginal breech delivery in all fours position locally.

[53] At the time of his appointment on 4 July 2016, as outlined to the inquest and in his training portfolio, Dr Sharma witnessed and performed vaginal breech deliveries in full term babies, in all fours position, during his on call shifts in the Royal Maternity Hospital. His portfolio outlined that he performed 12 vaginal breech deliveries by April 2016, with a Consultant present, over a period of 10 years. Dr Sharma could not recall how many, if any, were preterm. Of those he stated, "a few" were in all fours but he could not be definite on the number. In relation to the question, whether he had conducted a preterm vaginal breech delivery on all fours before, Dr Sharma replied "probably not" "but the principles are the same" as for full term. He also attended simulation vaginal breech delivery training as part of his obstetrics and gynaecology training. Dr Sharma explained that, at the time of the Deceased's delivery, he was confident in his "skill set." Dr Sharma confirmed that he had never performed a vaginal breech delivery, in all fours position, in Craigavon Area Hospital before the Deceased's birth on 19 August 2016. When asked whether his thinking was, 'this is a small breech baby, it's going to come out in all fours' position nice and easily', Dr Sharma replied "that's what the expectations were."

[54] Dr Sharma confirmed that it was his intention to deliver the Deceased, whilst in the all fours position, at 17:00 hours and that he had not discussed this intention with the other delivery staff beforehand, accepting "they won't obviously have seen the all four in the breech presentation." Dr Sharma accepted that there was a dispute with Staff Midwife Herbert, and he described how he arrived in a situation with a baby who was about to deliver "and I said, "Look, we need to get this on all four", because in my heart, as a doctor, I knew that this is a better position to have a baby. It requires less manoeuvres, high chances of the baby coming without any manoeuvres and a spontaneous birth." Dr Sharma accepted that "in hindsight and on reflection I should have discussed with Mrs Brady what we are planning to do" at 17:15 hours when he introduced himself and also had the same discussion with the midwives in advance.

[55] Dr Sharma stated that, in all fours, there was good advancement of the breech when pushing and the Deceased's legs were delivered at 21:45 hours and the fetal heart was recorded at 132 bpm. After the delivery of the Deceased's legs, there was inadequate descent of the Deceased's body with pushing, and it was also difficult to monitor the baby's heartbeat. Therefore, Dr Sharma made the decision, to expedite delivery, by changing position from the all fours position to lithotomy at 21:52 hours (which he stated was in keeping with the draft RCOG Green top Guideline 20b peer review, April 2016 on "Management of breech delivery" which endorsed the recourse to the lithotomy position in these circumstances). He explained that the move did not take long, "a few seconds.. within a minute."

[56] In lithotomy position, active pushing was continued and Dr Sharma articulated how he delivered the Deceased's arms by Lovsett's manoeuvre (rotating the baby sideways). Dr Sharma disagreed with Mr and Mrs Brady's evidence and that of the scribe, Sister O'Neil, that he performed this on all fours. He stated that he did not perform any manoeuvres in all fours, called physiological breech labouring manoeuvres, as he was not trained to do them, "no one in Northern Ireland was doing them at the time" and that that the first course of this kind, in Northern Ireland, was held in October 2017.

[57] Dr Sharma stated that the nape of the Deceased's neck was visible at 21:53 hours. There was then a delay in the descent of the baby's head and a urinary catheter was inserted at 21:55 hours to empty the bladder and an episiotomy was performed at 21:58 hours, following a local anaesthetic. In order to deliver the Deceased, Dr Sharma then applied Barnes Neville forceps at 21:58 hours and the Deceased was delivered at 21:59 hours with one pull of the forceps, which he described as "my go-to procedure." The timed delivery from the nape of the neck to the head was 6 minutes (from 21:53 hours (21:52 hours according to the scribe Sister O'Neil) to 21:59 hours). Dr Sharma did not agree with Mr and Mrs Brady's evidence that there was pulling of the Deceased, "that's the last thing you ever do as obstetrician to pull the baby, because that will leave a difficulty that the head will get extended and then it's almost impossible to deliver the baby's head." He explained the sensation as perhaps the manoeuvres being carried out. Dr Sharma described

how the Deceased was in a poor condition, and he was handed over immediately to the paediatric team who undertook the Deceased's medical care.

[58] It was put to Dr Sharma that three expert Obstetricians, who gave evidence to the inquest, agreed that, "There was some delays in delivering Baby Troy amounting to four to five minutes possibly due to a lack of experience or due to the unfamiliarity of the team working at the time in Craigavon as to how to perform the various manoeuvres to expedite delivery when in the all fours position." Dr Sharma agreed that the team collectively were not experienced in all four's delivery in a breech birth, but that he was comfortable, and he was "the one who was performing the delivery" "and I was aware how to intervene if there is a delay in the delivery." Dr Sharma did not accept that there was a delay in delivery, four to five minutes, caused to a certain extent by that uncertainty and unfamiliarity because staff were not comfortable and then the move, at a very late stage, from all fours to lithotomy.

[59] The experts' conclusions were put to Dr Sharma, that the outcome would potentially have been different if the Deceased were delivered by caesarean section, to which Dr Sharma agreed. In relation to the question, if the vaginal breech had been conducted with the mother in the lithotomy position from the start may have made a difference to the outcome, Dr Sharma replied that it was hard to say. Finally, that there should have been better consent and discussion of the plan of management of delivery with the attending team, Dr Sharma agreed.

[60] Dr Sharma concluded that by explaining the lessons he has learned, "this all comes down to consent and counselling and talking through the delivery, especially to the staff members - communication probably could have been better in this case around the staff and with Mrs Brady."

[61] Staff Midwife Florence Herbert gave evidence to the inquest. At 20:30 hours she took over the care of Mrs Brady. Mrs Brady was reporting back pain and Staff Midwife Herbert assisted her to the bathroom still attached to the CTG monitor. On 21:00 hours, Mrs Brady was unable to pass urine, therefore verbal consent was gained to insert a self-retaining catheter, as she has not passed urine since in 17:00 hours and she had IV fluids. At 21:30 hours, Staff Midwife Herbert was preparing to insert a catheter when she found the presenting part was breech and visible. She pulled the buzzer to alert the ward sister, Sister O'Neil, and medical staff to attend and she then assisted Mrs Brady into a sitting position with legs in stirrups. Staff Midwife Herbert told the inquest that she was satisfied that Mrs Brady was fully dilated as "the breech was at a station of plus two, which means it is just sitting before coming out, so it's right at where the line of the perineum would be and there was no cervix visible around the body."

[62] At 21:35 hours, Dr Sharma was present, and Staff Midwife Herbert recalled at inquest that he performed a vaginal examination. Staff Midwife Herbert told the inquest that he then advised her that the latest research was to deliver a vaginal breech on all fours, and that he had witnessed this practice in the Royal. Staff

Midwife Herbert replied that the traditional position that should be considered, as Mrs Brady was a primigravida having a preterm baby, who had other risk factors, including meconium stained liquor, was the lithotomy position. She recalled stating, "I said I felt she should be in lithotomy position, because it was something that all staff were familiar with, we're all trained in it, and because baby's gestation was so early, if we needed to do anything quickly, as we were already in the position." Staff Midwife Herbert stated that Dr Sharma made the decision that Mrs Brady should be in the all fours position and that she accepted Dr Sharma's experience. She stated that she had a lot of all fours experience in normal cephalic deliveries and that "it was not uncommon to change position multiple times." When asked whether she thought the decision to deliver the Deceased on all fours was the right decision, she replied "Not at the time, no." At 21:37 hours, Staff Midwife Herbert assisted Mrs Brady onto all fours and the breech was now visible.

[63] At 21:45 hours Dr Sharma removed the legs, and the fetal heart rate was 122 bpm on CTG. Staff Midwife Herbert stated that at 21:50 hours she asked that a senior consultant be contacted as this was not uncommon. At inquest she explained that at this point she was concerned about the pace of the delivery, as "a baby of a gestation of 33 weeks, would have been more compromised than a term baby." At 21:52 hours, the body continued to advance slowly, and she was unable to obtain a fetal heart rate and so the decision was made to assist Mrs Brady into the lithotomy position with stirrups. At this point Staff Midwife Herbert stated that the Deceased was delivered up to the shoulder blades. She explained that the change "took less than a minute."

[64] At 21:53 hours, the Deceased's body was delivered to the neck. She agreed with Dr Sharma's evidence that Lovsett's was applied in lithotomy position and agreed with Sister O'Neil that "there was a towel on the baby at that time." The Deceased's head was not delivering so Dr Sharma performed an episiotomy and applied forceps and the Deceased was delivered. Staff Midwife Herbert described the Deceased as pale, floppy with no heart rate and he was immediately passed to the paediatric team. Staff Midwife Herbert commenced chest compressions and at approximately 22:40 hours the Deceased was transferred to the neonatal unit. When asked whether there was a sense of unease in the delivery room, she replied, "there is always unease, in a high risk birth or delivery, and yes, especially as midwives, we weren't experienced in breech deliveries."

[65] Dr Jayne Creighton, GP, gave evidence to the inquest. At the time, she was working as an ST4 trainee in Obstetrics and Gynaecology. On the evening of 19 August 2016, she was the Registrar on duty for night shift covering the Labour Ward. At 20:30 hours, she attended the handover and received information from Dr Hinds, in relation to Mrs Brady. Dr Creighton told the inquest that during handover, she was made aware that Mrs Brady had been counselled by Dr Hinds with regard to options of vaginal breech delivery versus caesarean section, including relevant risks, and that Mrs Brady had opted for vaginal breech delivery. She stated that there was no discussion about positioning for delivery. Dr Creighton stated that

she clearly recalled saying to Dr Sharma at the handover at 20:30 hours that, "I didn't have the experience to do this (meaning vaginal breech delivery of any form) and I needed him to stay in the hospital, and he assured me he would do that."

[66] Following the handover, Dr Creighton commenced a ward round with Dr Niamh Haughey (ST2 Obstetrics and Gynaecology and on call SHO) and she introduced herself to Mrs Brady. The plan was to continue to observe Mrs Brady and await events. Dr Creighton asked Staff Midwife Herbert to contact her if there was any clinical change.

[67] At 21:30 hours, Dr Creighton received a bleep from delivery suite, to inform her that Mrs Brady was fully dilated and pushing. She attended immediately at 21:35 hours. Upon her arrival, Dr Sharma was already present and supervising the delivery. Staff Midwife Herbert and Sister O'Neil were also present. Mrs Brady was in the all fours position and actively pushing with contractions. Dr Creighton told the inquest that clearly recalled "seeing two term vaginal breech deliveries during my time in Royal Jubilee Maternity, between 2015 and 2016. Those were both in the all fours position, but I was observing, and these were in different clinical circumstances. It was an in parous woman at term."

[68] When she saw Mrs Brady in that position she stated, "I wasn't surprised by it because I'd seen it before." Dr Creighton observed that the breech was advancing well and was visibly parting the labia. At 21:40 hours, the bottom delivered and 21:45 hours the baby's legs were released by Dr Sharma. Following the delivery of the legs, Dr Creighton's observation was that the descent of the body was slow at this point.

[69] At 21:53 hours, the scapulae were visible, and Dr Creighton described how Dr Sharma released the arms and the Deceased's body was delivered in the all fours position using the Lovsett's manoeuvre. Unlike Sister O'Neil she could not recall Dr Sharma using a towel but confirmed that the Lovsett's manoeuvre was carried out in all fours. Following this, Dr Creighton explained that delivery of the head did not occur in the all fours position, with the next contraction. She did not recall Dr Sharma conducting manoeuvres to release the head whilst in all fours.

[70] At 21:53 hours, Mrs Brady was assisted by Dr Sharma and Staff Midwife Herbert to turn onto her back. Dr Creighton told the inquest that she supported the body of the Deceased during this change of position. She stated at inquest, "My clear recollection is that the baby was hanging out up to the neck and that my instinct was to support the baby for the change in position." When asked why move Mrs Brady onto her back, she replied, "I suppose it allows other interventions such as forceps, that happened in this case."

[71] At this time, Dr Creighton agreed with Sister O'Neil that she should contact Dr McCormick, another obstetric consultant, as "it would not be unusual to call a second consultant to a delivery that is complex and difficult. So I thought the more

people that could be there, that is a beneficial thing to have the most experience in the room. So that is why I agreed that she should do that." Dr McCormick was subsequently stood down when the Deceased's head was delivered. Dr Creighton estimated that the time taken to move from all fours to lithotomy would have been less than two minutes.

[72] At 21:55 hours, according to Dr Creighton's recollection, Mrs Brady's legs were put into stirrups and the bladder was emptied by Dr Sharma using a catheter. The decision was then taken by Dr Sharma to perform forceps delivery. She described Dr Sharma as being "focused." An episiotomy was performed at 21:58 hours. Dr Sharma then applied Barnes Neville forceps, and the Deceased was delivered at 21:59 hours following one pull of the forceps, stating, "forceps can be difficult to put on, it's not a seamless process, but I observed that they went in and they locked, and it was one pull." Dr Creighton did not observe Dr Sharma using his fingers in any other manoeuvre and stated that she would have observed this as she was standing right beside him. Dr Creighton clamped and cut the cord and handed the baby to the paediatric team.

[73] Sister Laura O'Neil gave evidence to the inquest. On the night of 19 August 2016 she was the sister in charge of the Delivery suite. At 21:10 hours, Mrs Brady's buzzer sounded and when Sister O'Neil attended, Mr Brady reported that the CTG machine was alarming. Sister O'Neil repositioned the CTG machine leads to pick up the fetal heart rate. The fetal heart rate was heard at 148 bpm. She reassured Mr and Mrs Brady that this happens sometimes due to a change of position. At this time, Staff Midwife Herbert, who was looking after Mrs Brady, informed Sister O'Neil that Mrs Brady had not passed urine for approximately three hours and that she was going to pass an in/out catheter to empty the bladder.

[74] At 21:25 hours Staff Midwife Herbert reported to Sister O'Neil that the breech was visible at the perineum. At this point Mrs Brady was in the bed with her legs in stirrups in an upright position (lithotomy) with the end of the bed removed. At 21:30 hours, Sister O'Neil contacted Dr Creighton and informed her the breech was visible at the perineum. Sister O'Neil returned to the delivery suite with Dr Sharma, who was to perform the delivery.

[75] At 21:35 hours, Dr Sharma asked the midwives to get Mrs Brady into an all fours position on the bed. Sister O'Neil recalled that Staff Midwife Herbert questioned this decision with Dr Sharma, to move from lithotomy position, and onto all fours. Sister O'Neil told the inquest that Dr Sharma reassured them that this was the latest research for breech deliveries and that he was more familiar with this position for delivery from his experience in the Royal. When asked whether she had seen all fours before, she replied, "not for breech deliveries, for normal deliveries yes, but not for breech, no." In normal deliveries she said it was common to move positions during the course of the delivery. When asked how she felt about it, Sister O'Neil explained, "there was definitely a difference of opinion in the room, but I could see that things were happening quickly, so we didn't have really time to

discuss it, and my understanding was Dr Sharma was directing the delivery, and if he wanted the lady on all fours, I was happy to facilitate that, because I wanted him to take the lead." She agreed that it would have useful to have discussed this in advance, in particular, at the medical handover at 20:30 hours.

[76] Mrs Brady then assumed the all fours position, leaning over the back of the bed. Staff Midwife Herbert encouraged Mrs Brady to push, and they could see the breach advancing. Staff Midwife Herbert was to the left of Mrs Brady, and Sister O'Neil was scribing to the right of Mrs Brady, whilst Dr Sharma was standing at the bottom of the bed. Mr Brady was standing to Mrs Brady's right hand side.

[77] At approximately 21:35 hours, Dr Creighton and Dr Haughey were also present in the room standing at the bottom of the bed. At 21:40 hours the breech was advancing with pushes, and they could see the breech in the Frank position. They could see the deceased's two legs up the body and the feet had not yet delivered. At this time, Sister O'Neil contacted the paediatric team to be present in the room for delivery and they attended at 21:42 hours.

[78] Sister O'Neil told the inquest that Dr Sharma asked Staff Midwife Herbert if she wanted to deliver the Deceased's legs, as Mrs Brady was in the all fours position, and Staff Midwife Herbert voiced that she was not happy to do this manoeuvre. Dr Sharma then released the feet without difficulties at 21:45 hours. Sister O'Neill stated that the breech was advancing slowly with pushes and that the umbilicus was delivered, and the cord was up the body. At this point, Mrs Brady remained on all fours and the Deceased's legs, genitals, umbilicus and cord were facing outwards towards them.

[79] Sister O'Neil stated that, as there seemed to be no advancement or very slow advancement with the last few pushes, she and Staff Midwife Herbert encouraged Mrs Brady to push with contractions and they tried to help her by pushing her buttocks upwards trying to keep the breech off the bed to aid with descent. Sister O'Neil described how, at this point, the Deceased's body had delivered to mid-abdomen and there had been little advancement with the last few pushes.

[80] At 21:47 hours, Dr Sharma asked if there was accurate fetal monitoring on the CTG monitor. At this time, half the Deceased's body had been delivered, so they were unable to pick up the fetal heart rate. There was a brief discussion about trying to auscultate the fetal heart rate, but the cord was up the body, and the doctors did not think it was advised due to the risk of cord spasms.

[81] Sister O'Neil recalled that the chest was delivered at approximately 21:52 hours and Dr Sharma wrapped a towel around the Deceased's body. She stated that she could not see, at this point, what manoeuvre Dr Sharma was carrying out, but that he released the Deceased's arms and shoulders, up to his neck, "I believe that Jana was in the all fours position when Dr Sharma released the shoulders." Sister O'Neil told the inquest that the Deceased was delivered up to his neck on all fours.

She had a clear recollection of a towel being used, "the baby had been hanging out for a few minutes, or five minutes, so whether he was just trying to keep the baby warm, or whether he needed it to do the manoeuvres, I'm not sure."

[82] Dr Sharma then asked that Mrs Brady get onto her back with her legs up in the lithotomy position and Sister O'Neil stated that this "didn't take very long at all." She confirmed Dr Creighton's evidence that she held the Deceased while Mrs Brady moved positions.

[83] At 21:52 hours, Mrs Brady's legs were in stirrups and lidocaine was administered. Dr Sharma asked for forceps and Sister O'Neil left the room to retrieve them. Sister O'Neil asked Staff Midwife McGrath to contact Dr McCormick, another consultant, for assistance in case there was any difficulty in delivering the fetal head. At 21:56 hours, Sister O'Neil passed the forceps to Dr Creighton. At 21:58 hours Dr Sharma performed an episiotomy and applied the Barnes Neville forceps. Sister O'Neil described how the Deceased's head was delivered easily with one pull. She explained that "It takes a little bit of time to get forceps on, and then you have to wait for a contraction, so it might have seemed may be a delay, but as soon as the forceps were on and locked, with the next contraction the head was delivered." At 21:59 hours the Deceased was delivered by Dr Sharma and then passed to the paediatric team. She described him to be white and floppy. Sister O'Neil then assisted the paediatric team with resuscitation. She described how, after four rounds of adrenaline and constant CPR, the Deceased had a heartbeat at 17 minutes after birth. He was then placed in a cot and brought over to his parents before being transferred to the neonatal unit.

Pathology evidence

[84] Dr Daniel Hurrell, Consultant Paediatric/Perinatal Pathologist, gave evidence to the inquest. He performed an autopsy on the Deceased on 26 August 2016 and thereafter produced a report, with input from Dr Brian Herron, Consultant Neuropathologist, and both gave evidence to the inquest.

[85] Dr Hurrell told the inquest that autopsy examination showed a normally developed baby with no congenital abnormalities and normal internal anatomy. Examination of the Deceased's organs and tissues showed evidence of hypoxic ischaemic damage in the heart and liver. Dr Hurrell noted that Dr Herron concluded that there were features of global cerebral perfusion failure (hypoxic ischaemic encephalopathy) of several days' duration and as the Deceased was born in a state of collapse, it "happened around the time of delivery."

[86] Dr Hurrell explained that there was histological evidence of physiological stress and intra-uterine release of meconium. There was also evidence of ascending maternal genital tract infection (mild acute chorioamnionitis) and a fetal inflammatory response (chorionic plate vasculitis). He stated that this correlates with positive microbiology cultures of Klebsiella pneumoniae from various sites. At

inquest, Dr Hurrell stated that from "clarification from clinical colleagues that there was no evidence of significant infection in the intensive care unit, it makes it less significant in terms of creating a cause of death."

[87] Dr Hurrell told the inquest that the Deceased's perinatal and early neonatal course would have been further complicated by the effects of uteroplacental insufficiency with evidence of chronic intra-uterine placental ischaemia and an increased fetal placental weight ratio. Dr Hurrell stated that this functionally compensating placenta would have rendered the Deceased much more vulnerable to the stresses of normal vaginal delivery, particularly in the setting of intra-uterine infection. He explained that this was significant placental pathology, "The placenta was relatively small for gestational age and there was histological evidence that it was ischemic with infarction. So the placenta was small and functionally compensating - it was compensating to do its job and the reason for this is, a diagnosis of maternal vascular malperfusion or uteroplacental insufficiency, which is a maladaptation to pregnancy…so the placenta gets less oxygenated blood from the mother's circulation and then it becomes ischemic and small and less able to do its job." Dr Hurrell stated that "ultimately in these cases, the placenta will compensate for the ischemia, but usually in the late third trimester when foetal growth increases exponentially, that's when the placenta catastrophically fails and usually this can lead to stillbirth."

[88] Dr Hurrell did point out that during Mrs Brady's pregnancy, "the placenta itself was compensating in this situation, so baby would appear to be growing normally, and the placenta is functionally compensating, so there's no clinical indicators that I'm aware of that would let you pick that up during the pregnancy."

[89] Dr Herron reviewed the neuro histology and concluded that the abnormalities; organising subarachnoid haemorrhage, global cerebral perfusion failure and intraparenchymal haemorrhage were present. He stated that the features of global cerebral perfusion failure (hypoxic ischaemic encephalopathy) of several days' duration. He commented, "once you get damage to the brain and the blood supply doesn't get there and you get perfusion failure, there are a lot of secondary things occur as well, especially if you have downtime, which there was, I think, for at least 17 minutes in this case, where there's no blood supply to the brain at the start. That's catastrophic, when you have no blood supply to the brain for 17 minutes. Then you have resuscitation to try and get the heart and the brain supplied again, and you flood blood into a damaged brain, the vessels in the brain, the blood vessels, are damaged and they leak. So you are pushing blood into a damaged brain, it swells, it bleeds, and it is a whole, chain of events that occurs because of all this." Dr Herron stated, if the Deceased had survived, he would have had no cerebral function.

Expert Evidence

[90] Dr David Sweet, Consultant Neonatologist; Dr Caroline Gannon, Neonatal Pathologist; Dr Peter Lenehan, Consultant Obstetrician; Dr Alyson Hunter, Consultant Obstetrician and Gynaecologist, all instructed on my behalf, and Dr Tara Fairley, Consultant Obstetrician and Gynaecologist, instructed on behalf of the next of kin, all produced expert reports for the inquest. They held a meeting to discuss their respective reports, and they produced a document summarising their joint position and gave evidence to the inquest.

[91] Dr Gannon told the inquest that she reviewed the post mortem report and confirmed that the cause of the Deceased's death was hypoxic ischaemic encephalopathy and not sepsis. There was an infection present at birth, and bacteria present in his tissues at the time of his death 6 days later, but these were unlikely to be connected. The acute chorioamnionitis present at birth was not likely the same infection he had at the time of death. Dr Gannon's conclusion was that the Deceased was more likely to be in the very early stage of a subsequent second infection shortly before death.

[92] Dr Gannon agreed with Dr Hurrell that the Deceased's placenta was hypoxic and ischaemic and was too small in comparison to his weight and it was very likely that the placenta had insufficient reserve capacity to withstand the increased stresses of labour or to provide sufficient oxygen to the Deceased and this was compounded by the increased stress caused by infection.

[93] Dr Sweet told the inquest that, in his view, the Deceased's demise was solely as a result of hypoxic ischaemic encephalopathy secondary to interruption of the placental circulation at some stage around 21:00–21:59 hours. He was of the view that by 21:27 hours the Deceased's heart may well have stopped. He stated that the clinical course of the Deceased, after resuscitation, was very typical of a baby who has suffered a global asphyxia insult. Dr Sweet commented that it is very clear from the literature that infants who do not have reestablishment of effective cardiac output beyond ten minutes of age (in this case 17 minutes), usually have a very poor outcome, with either death or severe disability being the result. Dr Sweet was of the view, like Dr Gannon, that the finding of Klebsiella on cultures at post-mortem, were a red herring. Dr Sweet was of the opinion that the Deceased had very good clinical care when in the NICU, commenting, "it was a credit to the team that they were able to get his heart started, but it was quite long before it did get started which put him in a position where, no matter what happened, that he was likely to have a very poor outcome."

[94] Dr Hunter explained to the inquest that around 3% of babies born after 37 weeks gestation will be in the breech position. Approximately 7% of babies will be in breech position at 33 weeks gestation.

[95] Dr Hunter was of the opinion that, Dr Sharma, as Consultant on call, should have discussed the advantages and disadvantages of vaginal birth versus caesarean section for a breech presentation in labour, with Mrs Brady and recorded this discussion in her notes. Dr Hunter was also of the view that Dr Sharma should have explained his experience to Mrs Brady, which would have helped her decide what was her preferred safest option for her delivery. In her opinion, the degree of explanation and informed consent, as documented by Dr Hinds, in the notes, was not sufficient. She went on to say that from admission at 13:40 hours, there was enough time to fully explain the choices regarding vaginal birth or caesarean section and to chart in the medical notes that Mrs Brady was fully aware of the associated risks of each option. There was also no mention in the notes about which mode of vaginal breech delivery was to be attempted. Dr Hunter did not accept that the consent for a vaginal breech birth was adequate. She commented, "I do think for this case, a very important point is the counselling, the counselling that these things do happen, that bad things can happen with breech; the counselling is essential."

[96] Dr Hunter observed that the medical notes did not document a vaginal examination after 21:00 hours by the medical team and that it is well understood that incomplete dilatation of the cervix is a very important factor in determining the success of a breech delivery and while it may have occurred, it was not documented.

[97] Dr Hunter told the inquest that while it is difficult, on a labour ward, to have time to plan everything in advance, there were a number of hours when Dr Sharma could have talked through his plan with the other doctors and midwives involved, which he did not do.

[98] In relation to the all fours position, Dr Hunter explained to the inquest that the Physiological Breech Birth Algorithm, whilst not in place in 2016, proposes three key interval limits: delivery of buttocks to birth within seven minutes, pelvis to birth within five minutes and umbilicus to birth within three minutes. If there are any delays the algorithm mandates methods to intervene and expedite delivery. In the Deceased's case Dr Hunter commented that delivery was significantly longer.

[99] In her report, Dr Hunter stated that in a physiological breech delivery on all fours, there are a number of methods that should be implemented if there is a slow descent of the baby's body and head, for example, prayer hands, shoulder press manoeuvres, suprapubic pressure and there was no evidence, in the notes, that any of these were tried before Mrs Brady moved into lithotomy position. Dr Sharma addressed this in evidence explaining that he was not trained in such manoeuvres in 2016 and the first course of its kind in Northern Ireland was in the following year. Dr Hunter commented that when Mrs Brady was turned onto her back (at 21:52 hours) delivery took a further 12 minutes with the total delivery time of 19 minutes from delivery of the buttocks (21:40 hours) to delivery of the head (21:59 hours) which was outside both the current Physiological Breech Birth and RCOG Guidance.

[100] Dr Hunter was of the view that it was advisable and good practice for Dr Sharma, who was attempting an unconventional technique in a potentially difficult breech birth, to have at the very least called another more senior consultant for advice.

[101] Dr Hunter described how, from the onset of pushing in a breech, the time of delivery of the buttocks to the delivery of the head should ideally be less than five minutes and delivery from the nape of the neck should be around three minutes. She stated that there was obviously delay in the Deceased's case. Dr Hunter stated that for the Deceased to be rendered in such a poor condition at birth, "the breech delivery of this baby" was an effect.

[102] In relation to the cause of death, Dr Hunter was of the view that the Deceased, on the evidence, was not under significant hypoxic strain antenatally or in the first stage of labour, hence, she is of the opinion that the acute hypoxia caused by delivery was instrumental in the Deceased's death.

[103] Dr Fairley also commented that there was no documentation in the contemporaneous note, made by Dr Hinds, of the specific risks and benefits of caesarean section or vaginal breech delivery, that were discussed. She stated that clinical practice, especially in Obstetrics, requires the careful documentation as well as discussion of specific risks and benefits of a given intervention and in her opinion the contemporaneous documentation fell short of an acceptable standard.

[104] Dr Fairley explained to the inquest that on the occasions Dr Sharma saw Mrs Brady, at 17:00 hours and 18:55 hours, he should have ensured that Mrs Brady was fully conversant with the risks and benefits of vaginal birth and caesarean section and this should have been documented. She stated that failure to have done so fell short of the expected standard of obstetric care.

[105] Dr Fairley explained that current RCOG guidance indicates intervention if there is a delay of more than 5 minutes from delivery of the buttocks to the head and in this case interventions were slightly delayed at seven minutes and Mrs Brady moved into lithotomy position (at 21:52 hours). Dr Fairley and Dr Lenehan were of the view that there was no evidence to suggest head entrapment. Dr Hunter stated, "I do agree by the time the baby was round in the lithotomy position, and that the forceps were applied, that it wasn't (head entrapment)."

[106] Dr Fairley noted that from delay being identified in progress at 21:45 hours, 14 minutes elapsed prior to the birth of the Deceased. She stated it may have been possible to have reduced this delay by a few minutes, (around 21:55 hours). In relation to the point Mrs Brady made about the Deceased hanging from his neck prior to delivery of his head, Dr Fairley stated that it is a normal and appropriate practice during the birth of a breech baby as this promotes flexion of the fetal head which makes it easier for the after coming head to be delivered and that this should have been explained to Mrs Brady in advance.

[107] Dr Lenehan stated that a caesarean section carried out earlier would have been reasonable, but not routine for pre-term breech presentation, and in his opinion not indicated in the circumstances. He concurred that the time lapse between the delivery of the legs and the head was a cause for concern.

[108] At inquest hearing, all three Obstetrician's, Drs Fairley, Hunter and Lenehan agreed that this was a high risk pregnancy given the combination of spontaneous rupture of membranes and prematurity and breech presentation. Mrs Brady's previous LLETZ procedure in 2007 was felt to be less relevant. They agreed that that an urgent caesarean section was not mandated in the circumstances of the case, nor were there signs to indicate that there was placental insufficiency at that time and Dr Gannon commented that "there's no way that that could have been picked up during the labour process."

[109] All three Obstetricians discussed the advantages and risks of vaginal breech delivery and for caesarean section in the circumstances of the Deceased's case, in their respective reports. The experts were asked, to what extent should those advantages and risks have been explained to Mrs Brady as part of the process for obtaining her consent. Dr Fairley pointed out that Mrs Brady had been admitted long before labour, and therefore there was plenty of time to have these discussions. All three experts agreed that Dr Hind's discussions should have been documented more clearly in Mrs Brady's record. They also all agreed that the absence of Consultant documentation, from Dr Sharma, regarding the discussion around the risks and benefits of preterm vaginal breech delivery were also lacking from the records, which was suboptimal.

[110] Dr Hunter opined that, "I think the evidence would suggest that both options are safe in terms of they are appropriate things to recommend. But, as I say, the use of that word in in isolation is not really appropriate." Dr Fairley commented that "there was no reason to suggest that it was unsafe to deliver baby Troy vaginally, when that conversation took place" and "probably the risks to the baby from a vaginal breech delivery, compared to a Caesarean section, the safer option would be Caesarean section. But, again, because this is a pre-term baby that is not absolutely clear. I think the most important thing, is that all of the appropriate risks and benefits of each course of action are discussed in a timely way with the family, they're given the opportunity to reflect on those, to ask questions and that they make the right decision for them at that time, and that that decision is amenable to change, should they change their minds. And that then those risks and benefits are clearly documented and their decision regarding what path their wish to follow is also clearly documented. I understand that it is very difficult in a busy obstetric setting, in a busy Labour Ward to necessarily put aside that time to have those conversations, but it's absolutely critical to do so."

[111] At inquest, the experts discussed at length, if Mrs Brady had opted for delivery by caesarean section, what is the likelihood that the Deceased would have

survived? Dr Fairley commented that this was a case of acute on chronic hypoxia. The caesarean section would have mitigated the acute hypoxia and therefore it was likely that baby would have survived. She explained that "I think it seems reasonable to suggest that unless the contractions diminished significantly the aim would have been to deliver baby Troy between an hour and 90 minutes after 19:15." Dr Hunter also agreed that a caesarean section would likely have resulted in the Deceased surviving and noted that the CTG remained normal at 20:20 hours which "would suggest that baby Troy was still in reasonable condition at that point" and "I agree that on the balance of probabilities, had he been born, at that stage, by Caesarean section, he would have been born alive."

[112] In relation to the question, what was the optimal maternal position for breech delivery of a preterm baby ("all fours" or lithotomy) and would either position have made a material difference to the outcome? Dr Fairley suggested that either method was perfectly acceptable, "but the most important factor is really the experience of the person who'll be assisting with the birth of the baby. By choosing "all fours" in this case and then having to revert to lithotomy caused slight delay by having to move the mother when the baby was only partially delivered." Dr Hunter agreed that either position is acceptable. She commented that there had been a move, around that time, to promote vaginal breech delivery with training courses suggesting potential benefits of "all fours" position, however, it was emphasised on these training courses that obstetricians should initially be performing the procedure in teams (if not experienced). At inquest, Dr Hunter stated that "to my mind, and in my experience, in 2016, all fours breech delivery was a very unusual practice, it was not the standard, it was not taught and is still not taught in the approved PROMPT training, for Obstetricians and Midwives." Drs Fairley, Hunter and Lenehan all agreed that whichever method is chosen, the attending Obstetrician needs to feel confident in whatever manoeuvres are recommended to expedite delivery if needed for that particular position. In relation to Dr Sharma's experience, Dr Hunter commented that "he had seen a few, I do not think that really shows experience. But again: What is experience? And I think there is not experience in his team, and I think that would be a concern."

[113] Dr Fairly stated that "I should be clear that the breech delivery on all fours is not something that is routinely practiced in Scotland. Generally speaking we deliver babies breech in lithotomy position"… "which is simply to do with our experience." She explained, "in Scotland we're trained to deliver breeches with the woman in lithotomy position and therefore that's what's safest, because that's what we have more experience of."

[114] Dr Lenehan commented that "I have no experience personally of all four's deliveries, with an extensive experience of vaginal breech deliveries in the National Maternity Hospital in Dublin, we delivered all of the babies in the lithotomy position. And I think the experience, as I said, of the Obstetrician and the team is crucial to planning."

[115] In relation to the question, what, if any, alternative methods could/should have been used to release the fetal head? Dr Fairley pointed out that she did not believe there was head entrapment causing a problem. Dr Lenehan remarked that Lovsett's manoeuvre was used to help deliver the infant. It was agreed that there would have been less delay if she had of been in the lithotomy position from the outset.

[116] In relation to the changing of the position to lithotomy, Dr Hunter commented that "in my whole experience, in all my training, in all of the scenario trainings, I had never seen anybody start doing a breech delivery on all fours and then change round. That was not my experience." She went on to say, "I imagine he (Dr Sharma) went in thinking: the baby will maybe fall out (and that was his experience, what he'd seen in the Royal) but when things went wrong, it was obvious that he hadn't been trained in how to manoeuvre the baby, and the notes are as they are; those manoeuvres were not employed, and there was a delay." She went onto say "no matter what anybody says, timing is important in breech, and I think it would have been better to go in with the one that he (Dr Sharma) was more familiar with, that he could have moved into interventions more quickly."

[117] Dr Fairley concurred, "my feeling, similarly to Dr Hunter's, from reading the notes was that when the baby was not spontaneously born with Mrs Brady in the all fours position, Dr Sharma's recourse was to move her to the lithotomy position before delivering the baby. My evidence would be that if he felt more confident delivering the baby in the lithotomy position (which is implied by the fact that he moved her when the baby did not deliver) then that would have been the appropriate position to have begun the birth in. It is routine practice for women to move around in labour. It is not routine practice for them to move around once their baby is partly born." She stated that the change in position did introduce a delay, which in her opinion, was four to five minutes, from the time that the decision was made to turn Mrs Brady to lithotomy position, from then until the time when they were ready to deliver the after-coming head.

[118] There was further discussion between the experts as to whether there any unnecessary delay in the birth of the Deceased and could interventions have been made at an earlier stage which would have made a difference to the outcome. Dr Hunter felt that there were some delays in the Deceased's case, in progressing through the various manoeuvres, to help deliver the baby, with some of the delay also caused by the need to move from all fours to lithotomy position. She explained that whilst RCOG timeframes were introduced in 2017, there were timings already in place in 2016, that stated the entire baby should be delivered within 15 minutes and from 21:40 to 21:59, in her opinion was "a long time."

[119] The experts agreed that the delays in delivering the Deceased were possibly due to lack of experience or due to unfamiliarity of the team working at the time in Craigavon Area Hospital as to how to perform the various obstetric manoeuvres to expedite delivery when in the "all fours" position. Dr Fairley accepted that the

RCOG Guideline at the time did not contain the timeframes for delivery, that were contained in the 2017 Guidelines, but she did comment "I have to conclude that from the notes it appears that there was a delay in the birth of the baby after the delivery of the umbilicus, and then there was obviously the turning from the all fours position to the lithotomy, which added additional time to the delivery. And I agree with Dr Hunter, that it is not relevant, the length of second stage in this labour and birth, which is only 34 minutes and in a term baby that's cephalic would be considered to be short for a first pregnancy; it's not comparable (to a vaginal breech delivery)."

[120] Dr Fairley wondered if Mrs Brady should have been in the lithotomy position from the start because of the four-five minute delay, commenting "it's the delay in the birth of the baby that really causes the issue with oxygen supply to the baby, either obviously via the umbilical cord while it's undelivered and until it's born and able to breath for itself or be ventilated. So it is the delay that is really the critical thing." She went on to say, "I think the only thing that could have been done really to reduce the delay, would have been to have commenced the birth with Mrs Brady in the lithotomy position." Dr Fairley accepted that in 2016 efforts to deliver were reliant on contractions. Dr Lenehan pointed out that most things on paper are different from what happens in real life and things often take longer than you would hope for and all of the Obstetricians agreed that this was a challenging situation, but that there was some delay and that would likely have further compromised the Deceased.

[121] In relation to Dr Hurrell's finding of a degree uteroplacental insufficiency with evidence of chronic intra-uterine placental ischaemia and an increased fetal placental weight ratio, Dr Gannon pointed out that the ratio of the weight of the placenta to the fetus was disproportionately small, despite the fact that the Deceased was growing normally. She hypothesised that he was coping with his hypoxic ischemic placenta at the time of presentation but would have had limited reserve to cope with a further hypoxic insult. Dr Sweet likened the situation to an athlete being asked to run the 200m sprint after he had already competed in the 10K. The Obstetricians agreed that it was likely that the Deceased, on the basis of his placental pathology, would have had more limited reserve to cope with any additional stress around the time of labour on the basis of the placenta findings.

[122] The experts discussed the possible cause of the hypoxic ischaemic encephalopathy and Dr Fairley felt it was a combination of placental insufficiency along with the events that occurred in the second stage of birth which led to the hypoxic ischemic encephalopathy. She stated, "I think the fact that there was a delay that's been identified from the birth of the baby beyond the umbilicus, to the birth of the head is the most important thing in terms of the acute episode of hypoxia that's on top of that chronic episode of the placental insufficiency." Dr Hunter and Dr Lenehan agreed. It was acknowledged that there was nothing in the foetal growth trajectory, clinical presentation or CTG early on to alert the attending team

that there was a greater risk of the Deceased getting into difficulties because of his small placental size.

[123] In relation to whether there were any signs of foetal hypoxia on the CTG, the Obstetricians agreed that the CTG was normal, until the prolonged deceleration in the second stage of labour, after which time it was difficult to interpret. It was agreed that in the final part of the CTG, it was difficult to be sure whether the recording was picking up the fetal or maternal heart and that by this stage in the second stage of labour there is little one can do in terms of reverting to caesarean section if the CTG becomes non-reassuring.

[124] In relation to the cord blood gases, all of the experts agreed that the normal blood gases would represent a section of cord which had become occluded. All the experts agreed that there were no signs of sepsis in either Mrs Brady or the Deceased at any stage.

[125] In relation to the occlusion of the Deceased's cord during the second stage of delivery, Dr Sweet commented that "if the baby's being delivered by breech, you could assume the cord is occluded…the healthier the baby is at the start of the occlusion, the less likelihood there will be that you'll get a negative outcome from it." He noted that the Deceased's blood gases were almost completely normal "in a baby who has got no heartbeat whenever he's born. So clearly there's evidence that his cord must have been compressed, because the blood flowing out of a baby whose heart has stopped would be expected to be extremely acidotic." Dr Hunter commented that if the Deceased were delivered to the neck on all fours by 21:52 hours then this could have increased the severity of the cord occlusion.

[126] All of the obstetricians agreed that the outcome would have been potentially different if; the Deceased had been delivered by caesarean section; if the vaginal breech had been conducted with Mrs Brady in the lithotomy position from the start; if there had been better consent and discussion of the plan of management of delivery with the attending team; the attending consultant having requisite experience for undertaking a high risk delivery.

[127] In concluding, Dr Hunter stated "I think for women, and for their families, and also for the staff looking after them that getting consent in a busy Labour Word, in a busy Admissions Unit is extremely difficult, and that Northern Ireland Trusts, really need to think about what information, we're telling women before they get as far as admissions on the Labour Ward." Dr Fairley agreed, "I definitely think that consent guidance, particularly around the time of an admission would be extremely useful. But I absolutely think having very clear protocolized consent for these high risk situations would be very helpful to women and staff, so that both parties were clear that all the information had been given and understood." Dr Lenehan concurred, "information is key, but it has to be the relevant and pertinent information at the time" and concluded that "this is a very complex case, and I think

all our sympathies go out to the family, particularly for their great loss, in a very complex situation."

Conclusions on the evidence

[128] I find, on the balance of probabilities, had appropriate documented counselling been given to and informed consent obtained from, Mrs Brady, and the Deceased delivered by caesarean section; had the vaginal breech delivery been conducted in the delivery team's most familiar position, lithotomy, from the outset, to avoid the delay in the change of position from all fours; the Deceased's death on 25 August 2016 in Craigavon Area Hospital was avoidable.

[129] On the evidence before me, there were a number of missed opportunities, in the care and treatment of the Deceased, which I outline below, each of my findings I make on the balance of probabilities.

[130] I find that the Deceased's birth was high risk, given that he was premature, there had been a spontaneous preterm rupture of the membrane; and the Deceased was lying in breech position, and I find that Mrs Brady should have been clearly informed of this.

[131] I find that Dr Hinds did explain some risks of vaginal breech delivery and caesarean section to Mr and Mrs Brady, however, I find, that she did not explain all risks detailed in her witness statement. I find that there was a subtle emphasis placed on vaginal delivery and that Mr and Mrs Brady interpreted the terminology, "no objection to", "happy" and "safe option" to mean vaginal breech delivery was the clinician's recommended option for them. Therefore, I find that Mr and Mrs Brady did not provide fully informed consent on a preterm vaginal breech delivery.

[132] I find that had Mrs Brady been properly consented, she would have, on her own evidence, opted for a caesarean section, and I find that Dr Sharma, on his evidence, would have aimed to deliver the Deceased between an hour and ninety minutes after 19:15 hours on 19 August 2016.

[133] I find and acknowledged by Dr Hinds, that her notes of the discussion with Mr and Mrs Brady were inadequate for such an important decision.

[134] I find, as recommended by Dr Hunter, Dr Fairley and Dr Lenehan, and as this case demonstrates, all Trusts should give consideration to issuing a protocol or guidance, in addition to the aide memoire, which would provide detailed information on consent for high risk situations such as this, before reaching the Labour Ward, which would ensure that clinicians and patients were clear that all the information had been given and understood.

[135] I find that it was reasonable for Dr Hinds to expect Dr Sharma to follow up on consent, as he was the Consultant performing the delivery.

[136] I find and acknowledged by Dr Sharma, that he should have explained to Mr and Mrs Brady the risks and benefits of vaginal birth versus caesarean section for a breech presentation in labour, in detail, and have confirmed their decision of vaginal breech delivery as the consultant and most senior obstetrician present and he should have documented this in Mrs Brady's notes and records as good practice requires.

[137] I find that whilst the all fours position for delivery during a vaginal breech birth was not contained in the RCOG Green-top Guideline No.20b (reviewed 2010) that applied at the time, it was an acceptable method of delivery, reflected in the draft RCOG Green-top Guideline No.20b (2016) and was dependant "on maternal preference and the experience of the attendant." However, I find that, at the time, all fours vaginal breech delivery was not a common practice in preterm high risk pregnancies such as Mrs Brady's.

[138] I find that there should have been proactive planning for delivery position by Dr Sharma with Mr and Mrs Brady, to ascertain maternal preference, which should have occurred earlier in the day, as required by the RCOG Green-top Guideline No.20b.

[139] I find and acknowledged by Dr Sharma, that he should have had a discussion with the delivery team at the handover at 20:30 hours about his plan for a vaginal breech delivery in the all fours position.

[140] I find that Dr Sharma lacked the requisite experience and confidence, at that time, to perform a preterm vaginal breech delivery in all fours position, with a delivery team inexperienced in this position for breech deliveries and in a hospital where it had never been performed before.

[141] I find that Dr Sharma, who was appointed to the role of Consultant six weeks prior, was attempting an unconventional technique for Craigavon Area Hospital, in a potentially difficult breech birth, and should called another more senior consultant, such as Dr McCormick, for advice, before established labour and informed him of his chosen mode of vaginal breech delivery.

[142] I find that the necessity to revert to lithotomy from the all fours position caused a delay in the Deceased's delivery and created uncertainty and confusion in the delivery room.

[143] I find that Dr Sharma did perform manoeuvres in the all fours position and that the Deceased was delivered to his neck by 21:52 hours before Mrs Brady was moved to the lithotomy position.

[144] I find that Dr Sharma, should have conducted the Deceased's delivery in the lithotomy position from the outset, as he was, by his own acknowledgment, not trained to conduct manoeuvres in the all fours position, and he was more familiar with manoeuvres in lithotomy when required, such as forceps, which he described as his "go-to procedure."

[145] I find that chronic placental insufficiency meant that the Deceased had limited reserve to cope with the additional stress and the further hypoxic insult resulting from the events and delay that occurred in the second stage of his birth, and this led to hypoxic ischaemic encephalopathy.

[146] I find that death was due to:

1(a). Hypoxic ischaemic encephalopathy

1(b). placental insufficiency; delayed stage 2 vaginal breech delivery

2. Preterm labour

[147] The above findings should be placed in the following context. At inquest, I heard evidence from Mrs Wendy Clarke, Interim Assistant Director, Integrated Maternity & Women's Health Division in the Southern Health and Social Care Board, in relation to the learning and subsequent implementation of recommendations and changes in services in the Southern Trust following the Trust's Serious Adverse Incident Investigation (SAI) into the circumstances of the Deceased's death.

[148] Mrs Clarke explained to the inquest that the Trust acknowledged, in the SAI Report, that there was controversy regarding optimum positioning for vaginal breech deliveries and up to date draft guidance existed in 2016 suggesting consideration of an "all fours" position; but that not all Trust staff were aware of such guidance at the time, as is reflected in the evidence to the inquest. There was no definitive Trust guidance in place to assist clinicians at the time. A recommendation from the SAI Report was that the Trust needed to update the guidance on management of breech births.

[149] Mrs Clarke explained that the current Trust guideline on management of breech births was devised in November 2017, in line with Royal College of Obstetricians and Gynaecologists Greentop Guideline 20b Management of Breech Presentation. This guideline, titled "Breech Presentation Management" has been reviewed within the Integrated Maternity & Women's Health Division Guideline Group in June 2022. She advised that this guideline will be reviewed again in June 2025 or before, if there are changes to National Guidance.

[150] Mrs Clarke agreed with Dr Hinds' evidence, that there is now a pro-forma or aid memoire for clinicians, which came into force in 2021, which outlines risks and

benefits to assist in the counselling and consent process and that the document remains in the patient's notes and records. She stated that it is a generic document that covers breech presentation at any gestation. Mrs Clarke confirmed that a copy of this aide-memoire is not provided to the patient currently, which the Trust has no objection to providing, and I find that it would aid the patient's understanding of the process, risk and benefits if this aid-memoire were to be shared with each patient.

[151] Mrs Clarke explained that the SAI report identified that delivery planning should take place with the clinical team and with the mother and partner in advance of the second stage. This would allow for professional discussions and clarity for all and had this taken place in the Deceased's case it may have minimised conflict and tension during delivery.

[152] The recommendations that were subsequently implemented in relation to the above lesson, were to have professional communication practiced through multidisciplinary staff training including PROMPT (Practical Obstetric Multiprofessional Training) and simulated drills. Mrs Clarke described how this recommendation was implemented alongside a third recommendation, to adopt and promote the clinical team knowledge in communication aides, such as CCUSS acronym (Clarity, Concerned, Uncomfortable, Safety, Stop). Mrs Clarke explained that this communication aide enables any member of a clinical team to use key words if they wish the team leader to pause and or stop to allow review of management.

[153] The importance of how to use the above communication aides has been implemented as part of PROMPT and simulation training. Mrs Clarke outlined how staff attend yearly training in which these communication aides are discussed through presentations with an opportunity to practically use them in simulated practice environments. This training is continued throughout the year and enables all new staff to have this as part of their induction into the Southern Trust.

[154] Mrs Clarke told the inquest that if the same circumstances presented today there "would still be a discussion in the Assessment Unit about options for delivery prior to coming to Delivery Suite as the information has to be given to women as early as possible. The Consultant involved, we have a Consultant of the week, would then have a discussion and review the consent with the use of the aide-memoire."

[155] It is hoped that the recommendations contained in the SAI Report continue to be implemented by the Trust, in order to demonstrate that lessons have been learned from the Deceased's death.