Neutral Citation: [2015] IEHC 592

THE HIGH COURT

[2012 No. 5798 P]

BETWEEN

SOPHIE EVERARD

(A MINOR SUING BY HER MOTHER AND NEXT FRIEND,

LISA EVERARD)

PLAINTIFF

AND

HEALTH SERVICE EXECUTIVE

DEFENDANT

JUDGMENT of Mr. Justice Michael White delivered on the 24th September, 2015

1. The plaintiff by her mother and next friend, Lisa Everard, has issued proceedings against the defendant alleging negligence in the management of the birth of the plaintiff on 23rd January, 2011, at Our Lady of Lourdes Hospital, Drogheda, Co. Louth. It is alleged that during the course of delivery of the plaintiff by the defendants, servants or agents, a diagnosis of shoulder dystocia was made when the baby's head was delivered, but notwithstanding this, the plaintiff was delivered with pulling of the plaintiff's head with the result that the traction thereby imposed on the plaintiff's head and neck resulted in injury to the plaintiff. The relevant detailed particulars of negligence allege that excessive traction was applied to the plaintiff's head when shoulder dystocia had been diagnosed and that the proper procedures were not followed in a diagnosis of shoulder dystocia with only one manoeuvre being applied that is the McRoberts position. It is also alleged that there was a failure to maintain a calm and collective approach to the delivery of the baby and an alleged lack of supervision of a registrar with insufficient qualification and experience to safely manage the delivery of the plaintiff.

2. The defendant in its defence has denied that shoulder dystocia was diagnosed in the manner alleged. The defence stated the plaintiff was placed in the McRoberts position as a precaution and not as a result of a diagnosis of shoulder dystocia. It is also denied that the traction allegedly imposed on the plaintiff's head caused any injury to the plaintiff in the manner claimed.

3. The mother of the plaintiff was born on 28th January, 1980 and was 30 years of age when she went for antenatal care on 9th July, 2010. It was noted that she was expecting a single child. She had previously suffered an early miscarriage at five weeks gestation in 2008. An examination of her weight was 84kg and her height 165cm giving a Body Mass Index of 30.7. Her antenatal care proceeded well without undue complications. The expected delivery date was 18th January, 2011. Mrs. Everard visited the hospital on the afternoon of 22nd January, 2011 but was not admitted. She was admitted at 23:30 on the evening of 22nd January, 2011. Her membranes ruptured at the hospital and labour commenced. She received an epidural injection for pain relief. Management of the delivery was uncontroversial. She had strong regular contractions with the assistance of an infusion of oxytocin and made good progress and reached full dilation within six hours. She was encouraged to start pushing at approximately 9:10am. When there was no progress after one hour, she was examined by the obstetrics registrar, Dr. Chro Fattah, who found that Mrs. Everard fulfilled all the usual criteria for attempting instrumental delivery. A kiwi cup was applied to the baby's head and the head was successfully delivered by instrumental delivery at 10.41am. It is accepted by the plaintiff that the management of labour to this point was satisfactory.

4. The subsequent management of the labour up to the delivery of the plaintiff is controversial, and there are both factual disputes, and differences of expert medical opinion on the management of the labour during this period of time.

5. The Royal College of Obstetricians and Gynaecologists Guideline No. 42, December 2005 defines shoulder dystocia as a delivery that requires additional obstetrics manoeuvres to release the shoulders after gentle downward traction has failed. Shoulder dystocia occurs when either the anterior or less commonly, the posterior fetal shoulder impacts on the maternal symphysis or sacral promontory.

6. The plaintiff at birth was a large baby weighing 4450g, who was healthy on delivery with apgar scores at 9 and 10 at one and five minutes. On examination later that evening at approximately 18:00, it was noted she had limited movement of her left arm. An x-ray of the arm and clavicle on the following day, 24th January, 2011, demonstrated no evidence of fracture. She was evaluated by a consultant paediatrician, Dr. Juliet Jennings who described left erb's palsy for which physiotherapy was prescribed. A subsequent evaluation by a consultant paediatric neurologist, Dr. Brian Lynch on 25th May, 2011, at four months of age confirmed evidence of a brachial plexus palsy with weakness of the left elbow.

7. There is also, in this case, a conflict between the medical experts on the exact cause of brachial plexus injuries arising from child birth which the court will consider.

8. Our Lady of Lourdes hospital had put in place guidelines for clinical practice where shoulder dystocia arises in childbirth. These have been in place since April 2002 and those available to the court were dated 2nd July, 2004.

9. The guidelines highlight the importance of communication and documentation in the management of shoulder dystocia and the need to call for help at the earliest sign and the identification of potential complications, both maternal and fetal. The guidelines state that a focused calm approach is required in this emergency and it is essential the clinicians are skilled in how to approach it. There should be a structured framework to manage shoulder dystocia and manoeuvres to be undertaken are set out in the guidelines. The manoeuvres are designed to do either one of three things, increase the functional size of the bony pelvis, decrease the bisacromial diameter or change the relationship of the bisacromial diameter within the bony pelvis. The specific structural guidelines are as follows:-

(a) call for help;

(b) evaluate for episiotomy;

(c) legs (the McRoberts manoeuvre);

(d) supra-pubic pressure;

(e) internal manoeuvres; (Rubin1, Rubin 2, Wood screw, reverse wood screw, remove the posterior arm, roll the patient)

10. The medical notes which the court finds relevant having considered all medical notes discovered are, as follows:-

(a) the midwifery notes, pp. 30 – 42;

(b) delivery summary, pp. 49 and 50;

(c) obstetrics registrar's note, p. 53; and

(e) CTG scan of baby, p. 118.

11. The court does not consider notes made after the delivery of the baby, or the attribution of shoulder dystocia to the injury in notes after the delivery as relevant to the determination of liability. The court is satisfied the notes were made contemporaneously, or shortly after birth before the baby left the delivery room.

12. There is no issue between the medical experts on the management of labour up to the time of delivery of the baby's head by instrumental application. The relevant page of the maternity notes for this period are p. 42 which I will quote in full.

23/1/11 (10:00) Continues to push FH(fetal heart)155BM(beats per minute)

23/1/11 (10:05) No further advance of the vx(vertex) continues to push well FH140BM, pushing one degree No progress seen. Dr. Chro contacted.

23/1/11(10:10) FH158BM

23/1/11 (10:15) Dr. Chro will attend FH156 – 166BM (foetal tachycardia) present.

23/1/11 (10:20) FH165

23/1/11 (10:25) Dr. Chro present to R-V(review) and assess FH153BM

23/1/11 (10:30) In lithohemy position. Paeds(paediatrician) present. Obs reg Dr. Chro FH151BPM. 1st kiwi cup applied. 1st pull.

23/1/11 (10:35) Perineum infiltrated. FHR113BPM

23/1/11 (10:40) Episiotomy FHR157BPM. McRoberts position assumed.

23/1/11 (10:41) Head delivered

23/1/11 (10:43) Kiwi delivery. Live baby girl Attempted to cry. Handed to paeds.

A delivery summary was also prepared and is at p. 49 and 50 of the notes.

Method of delivery: Ventouse (non-rotational)

Time of birth:10.43

Resuscitation: Suction plus O2

Liquor: Meconium (Grade 2)

Apgar's scores: 9 at one minute, 10 at five minutes

Special care: No

Shoulder dystocia: No

Feeding at delivery: Breast

Delivered by: Dr. Chro Fattah (Registrar)

Midwife Mrs. Leasa Murphy (Hospital Midwife)

Second additional midwife: Mrs. Siobhan Weldon (CNM2)

Anaesthetic inserted by: Dr. Ishan Butt (Registrar)

Type of foetal monitoring in labour: abdominal transducer

Intrapartum Problems: No.

In evidence to the court on 10th December 2014 Leona Campbell stated that she was a midwife present and was responsible for writing the notes at p42 with the exception of the entries at 10:35; 10:40; and 10:41 which were written by a student nurse, Ms. Dowdall. She completed the delivery summary at p49 and 50 which she signed. She described it as the MIS system. Ms. Campbell stated that she had written "McRoberts position assumed" after the delivery was completed as the student nurse had not recorded it, and it should have been entered after the note "10.41 Head delivered"

The medical registrar notes of Dr. Chro Fattah are at p. 53 of the discovery and the relevant extracts are:-

> Date 23.1.2011
>
> Time:10.43
>
> Procedure: Kiwi
>
> Indication: failure to progress,
>
> Obstetrician: Dr. Chro Fattah,
>
> Anaesthetic used: epidural and local analgesia.
>
> Suture material used: vicryal rapide.
>
> Pushing for one hour ten minutes.
>
> Head at spines felt OA.(occiput anterior)
>
> Verbal consent.
>
> Bladder emptied.
>
> Kiwi applied. Three to four pulls head delivered.
>
> Very tight around perineum.

Precautions made for shoulder dystocia but delivered with pulling the head.

13. There was some writing on the CTG (cardiotocography) of the baby which is at p. 118 of the notes and this records that the head was delivered at 10:41, the McRoberts position was taken as a precaution at 10.42 and the baby was delivered at 10.43. The actual words used were:-

> "Head del
>
> McRoberts (precaution)
>
> Kiwi vac baby girl"

14. Before dealing with the resolution of disputed fact, the court will consider the case being made by the plaintiff and the defendant by way of expert opinion on the management of the labour and birth of the plaintiff. The reason for this is that the experts in preparing reports relied on issues of disputed fact, and formed opinions based on this.

15. A conflict arose during the course of the trial when Prof. Fergal Malone an expert called by the defence was giving evidence and wished to give an opinion on the likelihood of the injured arm and shoulder of the plaintiff being anterior or posterior to the symphysis pubis at birth. Objection was raised on behalf of the plaintiff that this did not form part of the written report furnished in accordance with SI 391/1998, O. 39, r. 45 & 46 of the Rules of the Superior Courts. The court ruled that the evidence was admissible but gave an opportunity to the parties to present further evidence by their medical experts so Mr. Pyper having completed his evidence was recalled to deal with this issue This related to an abdominal palpation carried out by a midwife Ciara Dunne on the night of 22nd of January 2011 when Mrs. Everard was admitted, which found that the baby was a long lie, and to have an LOA (left occipito anterior) position, and cephalic (head facing pelvis) presentation.

16. The plaintiff called two medical experts, Mr. Richard Pyper FRCS(Ed) FRCOG a Consultant Obstetrician and Gynaecologist at Worthing and Southlands Hospitals National Health Service Trust, An RCOG College Tutor responsible for the education and training of junior doctors and Mr. S. H. Canty MA, FRCS, FRCOG, Consultant Obstetrician and Gynaecologist at the Horton Hospital Banbury Oxfordshire part of the Oxford Radcliffe Hospitals NHS Trust., and an Honorary Senior Clinical Lecturer in the Nuffield Department of Obstetrics and Gynaecology University of Oxford.

17. The defendant called two medical experts Prof. Fergal Malone MD, FACOG, FRCOG, FRCPI Consultant Obstetrician and Specialist in Maternal Fetal Medicine at the Rotunda Hospital in Dublin and Chairman of the Department of Obstetrics and Gynaecology at the Royal College of Surgeons, and Prof. John D Morrison, MD FRCOG FRCPI BSc BCH Consultant Obstetrician and Gynaecologist, Galway University Hospital and RCOG sub-specialist in Feto- Maternal Medicine., HSE and NUI Galway, Galway University Hospital.

Academic Articles Introduced During the Hearing

18. A number of academic studies on obstetrics were referred to in the course of the hearing as follows:-

"High birth weight and shoulder dystocia the strongest risk factors for obstetrical brachial plexus palsy in a Swedish population-based study" Mollberg and Ors Acta Obstetricia et Gynecologica Scandinavica:-2005: 84: 654 -659.

"Obstetric brachial plexus palsy, a prospective study on risk factors related to manual assistance during the second stage of labour". Acta Obstetrica et Gynecologica 2007; 86; 198 – 204, by Mollberg & Ors:-

"Comparison in Obstetric Management on Infants with Transient and Persistent Obstetric Brachial Plexus Palsy" by Mollberg & Ors,

Journal of Child Neurology, Vol. 23, No. 12, December 2008.

"Improving Neonatal Outcome through Practical Shoulder Dystocia Training" by Draycott & Ors, Obstetrics Anaesthesia Digest, Vol. 29, No. 2, June 2009.

"Abdominal Palpation to Determine fetal Position at labour onset: a test accuracy study" by Webb & Ors, Acta Obstetrica et Gynecologica Scandinavia 2011, 90 1259 – 1266.

"Obstetric Brachial Plexus Palsy: A birth injury not explained by the known risk factors" by Backe & Ors, Acta Obstetrica et Gynecologica 2008, 87 1027 – 1032.

"Brachial Plexus Palsy: An old problem revisited" Jennett & Ors.

"Spontaneous Vaginal Delivery; A Risk Factor for Erb's Palsy" by Gherman & Ors, Vol. 178, No. 3 Am J Obstet Gynecol.

"Concurrent Validity of Leopold's Maneuvres in Determining Feetal Presentation and Position" by McFarlin & Ors, Journal of Nurse Midwifery, Vol. 30, No. 5, September/October 1985.

Two other publications were referred to extensively,

• Royal College of Obstetricians and Gynaecologists, Guideline No. 42 December 2005.

• Neonatal Brachial Plexus Palsy: The American College of Obstetricians and Gynaecologists. A report of the Task Force on Neonatal Brachial Plexus Palsy: 2014.

Evidence of Richard Pyper

19. Mr. Pyper prepared three written reports:-

- Original report of 22nd April 2012.
- Supplementary Medical report of 18th November 2104.
- Second Supplementary Report of 11th January 2015.

The second supplementary report was prepared after a ruling by the court on 18th December 2014, that evidence could be led on the position of the plaintiff in the womb prior to delivery.

20. Mr. Pyper's view was that it was highly probable that excessive traction was applied to the plaintiff's head and neck during the process of delivery. There was certainly evidence of shoulder dystocia and it is recorded that the baby was delivered by pulling on the head. Only one of the recognised manoeuvres for shoulder dystocia was carried out and recorded on the notes, although it sounds from the claimant's account that supra-pubic pressure was applied by one of the midwives. There was no other reasonable explanation for brachial plexus injury in this case.

21. In summarising the management of the labour, Mr. Pyper's opinion was that:-

> "The management of this lady's labour was reasonable and augmentation with oxytocin was used when progress was slow. She reached the second stage within six hours of admission and the management of the second stage was appropriate.
>
> It was a reasonable decision to perform an instrumental delivery and the baby's head was safely delivered. There was no way of predicting that shoulder dystocia would occur in this case and there were no particular risk factors identified before labour. "

The main criticism was the management of shoulder dystocia once it was recognised one minute after delivery of the head. The initial management of shoulder dystocia with a McRoberts manoeuvre was appropriate but insufficient time was allowed for the baby to deliver. Similarly, supra pubic should have been tried for a further minute again combined with maternal effort. It is probable that allowing time for these simple manoeuvres would have resulted in the delivery of the baby's body.

If these manoeuvres had failed then the recognised manipulations of shoulder dystocia should have been performed. In particular it was negligent to apply traction to the baby's head and neck in this situation. He was concerned in particular about lateral flexion, where the baby's head is pulled downwards when the shoulder is trapped against the synthesis pubis. He stated there was no problem with normal traction, which should only be applied in the course of a uterine contraction with maternal effort.

He regarded the risk factors for shoulder dystocia in the plaintiff's delivery, as the fact she was a big baby at 4.3kg, and the delay in the second stage of labour, leading to an instrumental delivery, but accepted that shoulder dystocia is an obstetric emergency which cannot be reliably predicted or prevented. In the event, the delivery was complete two minutes after delivery of the baby's head and this implies a degree of panic associated with excessive traction on the baby's head and neck and was highly probably the cause of the obstetric brachial plexus injury."

22. Mr. Pyper's criticism of the management of the birth focused on actions after the head was delivered. He stated:-

> "It is only when the head comes right down, so the whole baby is coming down 15 to 20cm, it is at that stage that the shoulder impacts upon the pubic symphysis. So it is in any manoeuvres after that are likely to cause the brachial plexus injury."
>
> He considered Dr. Chro Fattah's note "very tight around the perineum" to mean, that once the baby's head was delivered it was pulled back into the vagina, and it's chin was very tight against the perineum (the tissue between the vagina and the rectum). This signified that the head was not delivering normally, and he regarded this as a sign of shoulder dystocia.
>
> He also considered it likely although not stated in the notes, that Dr. Fattah called for help from extra midwives.

Mr. Pyper relied on three articles in medical journals, of Swedish origin. The opinion Mr. Pyper formed from consideration of these three Mollberg academic papers was a huge degree of under-reporting of shoulder dystocia, and that shoulder dystocia, particularly with a birth weight of 4.5kg was the strongest risk factor for brachial plexus injury.

When there was some difficulty with delivering the shoulders it was not always recorded in the medical records and the studies implied that there was almost always difficulty in delivering the shoulders in all cases with brachial plexus injuries. One particular form of traction, downward traction imposed on the fetal head after the fetal third rotation was a manoeuvre most likely to be associated with brachial plexus injury.

23. He was of the opinion, that in most cases of brachial plexus injuries the absence of a shoulder dystocia diagnosis was simply due to the fact that midwives and obstetricians were reluctant to write shoulder dystocia in the notes and this may be wishful thinking or protection from litigation, or to avoid criticism from colleagues.

24. He summarised his view as follows:-

"The summary of the facts indicate that Sophie was a large baby and it is highly probable that shoulder dystocia occurred even though it was not documented properly. The left shoulder affected by brachial plexus injury was almost certainly anterior and in light of these studies, it is highly likely that injury was caused by excessive downward traction applied by the obstetrician. Indeed, there is no other reasonable explanation."

25. Mr. Pyper commenting on the standard of record keeping stated:-

"That the standard of record keeping was very poor because when the question of shoulder dystocia is raised, most hospitals emphasise the importance of documenting all the timings of all the manoeuvres undertaken. They also emphasise the importance of recording of what shoulder was anterior and posterior."

26. He was of the opinion that the following had not been recorded:-

- Which shoulder was anterior or posterior at delivery
- That there was shoulder dystocia.
- That the McRoberts manoeuvre was applied
- That supra pubic pressure was applied, although the claimant describes exactly that manoeuvre.
- That there was a call for help, and the medical staff in the delivery room were not noted.

27. On Mr. Pyper's recall on 25th January, 2015, he dealt with the position of the baby in the womb. He was of the opinion that abdominal palpation was not an accurate test for assessing the baby's position in the womb. He considered that Ms. Dunne the midwife's finding on examination of Mrs. Everard on 22nd January, 2011 that the baby's position was left occipital anterior was an opinion and was inaccurate. He noted that none of the medical experts had commented on this finding in their original reports and that the reason for this is that abdominal palpation of the uterus at term is known to be notoriously unreliable in determining the position of the fetal head. He was also of the opinion that abdominal palpation on an overweight mother was more difficult.

28. He relied on an academic paper (Webb), which he stated found that the study of 629 women specifically designed to measure the accuracy of abdominal palpation by midwives in determining the LOA (left occipito anterior) position, when compared with abdominal ultrasound, determined that only 9% of the fetuses were verified to be in the LOA position on ultrasound scan. The sensitivity of palpation in detecting LOA position was 34%, which meant that the midwife failed to identify an LOA position in 66% of cases. He extrapolated from this study that when a midwife says the position is LOA that predicts that she is right in 11% of cases and wrong in 89%. The implication of the study was that experienced midwives would be more accurate than less experienced midwives.

29. He accepted that on the accuracy of detection of the location of the baby's back, the same study showed that the midwives were correct 69% of the time and wrong 31% of the time in determining the left side. On the right side, midwives got it right 63% of the time and wrong 37%. He did not accept that the correct placement of the traducer for a CTG trace relied on the abdominal palpation to establish the place of the baby in the womb.

30. He was of the opinion that in less than 10% of cases, maybe less than 5% a baby can move in the womb to the extent that the back moves from the left side of the womb to the right.

31. Mr. Pyper was doubtful about the theory of posterior shoulder injury stating that "no one has ever provided a very good explanation of how it happens and what the mechanism is"

The Evidence of Stuart Canty

32. Mr. Canty prepared a written report of 27th September 2014, and an addendum by email of 12th January 2015. He was of the opinion that delivery of the head was achieved without unusual delay or apparent difficulty. He felt that the subsequent clinical notes were unclear and of poor quality, and in some respects contradictory.

33. He noted there was no great delay in the delivery and that fairly prompt resolution either decided the problem was a mild one or that Dr. Chro Fattah rather panicked and employed an inappropriately strong force to achieve what was perhaps an unnecessarily rapid delivery, and that she did not perform any of the recognised internal manoeuvres such as the woodscrew to rotate the shoulders or delivery of the posterior arm. She specifically records that the shoulders were delivered with pulling the head which was precisely the manoeuvre to be avoided in this situation.

34. He noted that Dr. Fattah had made a note which he regarded as confusing of "precaution for shoulder dystocia". The McRoberts position was employed and a suggestion in Mrs. Everard's statement that supra pubic pressure was applied.

35. He noted that although a degree of traction is acceptable, it was vital it should be maintained on the axis of the fetal spine and should not exceed normal traction for an uncomplicated delivery. There was no indication in Dr. Fattah's note that she exercised particular care in this respect and it was his view that the plaintiff's Erb's palsy resulted from excessive traction applied to the head

of the plaintiff.

36. He noted that there were occasions when Erb's palsy may be ascribed to pressure on the anterior shoulder during prolonged second stage of natural labour, but that it was more probable that the delivery technique of pulling the head was the mechanism for trauma.

37. He noted there were occasional reports in a minority of cases of Erb's Palsy affecting the posterior arm, which would be explained by pressure on the posterior shoulder in the course of labour, which would be pressure on the sacral promontory when the head is still higher and not due to obstetric intervention. He stated that this was uncommon. He criticised the failure to indicate which shoulder was anterior. He concluded on the balance of probabilities that Dr. Fattah's delivery technique was responsible for the injury.

38. He concluded that it did not make a difference if you suspect rather than make a diagnosis of shoulder dystocia, that appropriate steps to avoid damage to the baby should be taken.

39. He considered the risk factors to be a slightly raised Body Mass Index, a prolonged second stage of labour, a big baby, although there was no objective documentation to support this at the time, and also instrumental delivery.

40. He thought that the description of tight on the perineum was very strong evidence of shoulder dystocia, and in fact was a sign which should be recognised as such.

41. His view was that Dr. Chro Fattah seemed to have activated the protocol to manage shoulder dystocia although claiming and indicating that it was in someway precautionary and not therapeutic. He regarded this as muddled thinking. He stated that she did ask for help and that other staff members came in which was part of the reaction to be expected and that she requested the McRoberts position. She may or may not have requested supra-pubic pressure. He was of the opinion that Dr. Chro Fattah had embarked along the management protocol for shoulder dystocia but then seems. to have wandered away by pulling on the head to achieve delivery rather than employing the other recognised manoeuvres to protect the baby from injury.

42. He was also critical of the note in respect of the assuming of the McRoberts position as it was out of sequence, and that Dr. Chro Fattah's record of the delivery technique was incomplete as in his opinion the description of pulling the head would have been qualified by a sensible and reasonable obstetrician. He would have expected a note to the effect that light traction was employed with easy uneventful delivery or something along those lines.

43. He was of the opinion the McRoberts manoeuvre is usually combined with supra-pubic pressure and again although not recorded he felt it was suggested by Mrs. Everard's statement and referred to in Mr. Pyper's report.

44. He accepted that pulling was an appropriate description when applying an instrument to the baby's head for delivery of the head.

45. He, at all times, assumed that the injured shoulder was anterior and was damaged on the symphysis of the mother. He also assumed that Dr. Fattah did not apply or attempt to apply traction before delivery as there was no record of it.

46. He accepted that the turtle sign when a baby's head retracts is a more extreme version of tight on the perineum, and accepted that the latter was not uncommon with larger babies. He accepted that the McRoberts manoeuvre, was in his view the initiation of the shoulder dystocia protocol, and that if there was not a call for help that was a further deficiency.

47. He was aware of the McRoberts manoeuvre being used as a precautionary measure, but felt it could not be regarded as precautionary in this case because of the already clear sign of the perineum being tightly against the chin. He accepted that if it was a normal delivery there would be no need to record which shoulder was anterior on delivery, and also that it is fairly common to wait for the next contraction before attempting to deliver the shoulders.

Evidence of Prof John Morrison

48. Prof. John Morrison prepared two written reports, the first on 9th May, 2004, and a supplementary report on 3rd January, 2015.

49. He noted when Dr. Chro Fattah arrived at 10:25am and when the vacuum cup was applied at 10:30am, the baby was in the position OA (occiput anterior) which meant that the baby was looking at the floor which was the optimal position to be in prior to delivery. He then went on to consider the notes of Dr. Chro Fattah and the word "very tight around the perineum". He stated in some cases the head comes completely out and is very free and that would particularly be in a smaller baby or in a woman who had children before, whereas a woman who has never had children before, or indeed with a larger baby and both of these situations occurred in this case, the head may not emerge all that much and may be tighter on the perineum.

50. He noted he would encounter tight around the perineum on a regular basis, but turtling which is a further extension of that is very different. It means the head does not really emerge properly at all, it just literally turtles at the opening and does not emerge. He stated that being tight around the perineum was certainly an observation to be aware of and certainly an observation anyone practicing obstetrics will come across very regularly, but it is not in itself an emergency.

51. He then went on to consider the note of precautions made for shoulder dystocia and he stated that he thought the precautions were made because the head was tight around the perineum and that there was a clinical judgment made that it was not a small baby."

52. He noted that on the vast majority of times he would have encountered the head being tight around the perineum, there would be no shoulder dystocia, but you do not know that at that point, so you have to be prepared.

53. In reference to Dr. Chro Fattah's note delivered with "pulling the head", Prof. Morrison stated, historically pulling was always the word used. It is a word used for vacuum and forceps assisted deliveries of the head but since the guidelines have started using the word traction, people now use traction more for shoulders. He regarded the words as interchangeable, and did not think there was any difference between the two. He would not draw an adverse interference from the words "delivering with pulling the head".

54. He noted that the consensus of evidence documented at the time of delivery by Dr. Fattah and the midwife is that once the baby's head was delivered, Mrs. Everard was assisted into the McRoberts position. In his view, the McRoberts manoeuvre was used in this instance in an attempt to be ready for shoulder dystocia prior to its potential occurrence rather than to manage it as it had not occurred. The reason he advanced this was because no attempt had been made to deliver the baby at this point or to deliver the

shoulders and the baby. He noted that the comment inserted in the delivery note by Dr. Fattah, very tight around the perineum may have led to a suspicion that shoulder dystocia might follow. The practice of precautionary McRoberts practice is relatively common in the presence of factors that may be associated with a risk for a potential shoulder dystocia, i.e. instrumental delivery, prolonged second stage of labour or if there is a view that the infant may be large, and it represents good cautious practice which is largely preventative in nature.

55. He noted that in a normal vaginal delivery some traction for the delivery of the shoulders is needed and this coincides with the mother's contractions. He noted that because of the sequence of events, that once traction was applied, the baby was delivered. The time sequence was such that a contraction had to occur and the baby had to be delivered and all that happened within two minutes which almost does not allow for shoulder dystocia to have occurred. The doctor wrote: "precautions made but delivered with pulling the head". He attached significance to the word "but" which implied that precautions were made but that the baby was delivered.

56. Commenting on the Royal College of Obstetricians and Gynaecologists Guideline No. 42, on shoulder dystocia, para. 6.2 notes that the attendant health carer should observe for:-

- difficulty with the face and chin
- the head remaining tightly applied to the vulva or even retracting
- failure of restitution of the fetal head
- failure of the shoulders to descend

57. Prof. Morrison in his evidence commenting on these guidelines noted the factor present as the head remaining tightly applied to the perineum or the vulva and stated that in terms. of anticipating shoulder dystocia it is not very reliable, it happens frequently and the proportion to whom it happens who go on to have shoulder dystocia is very low. .

58. Prof. Morrison stated that the midwifery records made in this delivery were commendable that there was a huge variation in midwifery records applied in every hospital and every county. Some are very brief and others very long and he thought that these were very much to the point. They go minute by minute to five minute periods by five minutes to give a good factual account of what happened presumably by a professional standing there at the time who was observing it. He would regard it as an honourable professional attention to detail to note that the McRoberts manoeuvre was assumed, and that this was an element of meticulous note keeping and the fact that it was out of place on the note is neither here nor there. He did not regard this as being deficient or unusual.

59. The medical delivery note written by Dr. Fattah implies that the delivery of the infant from the time the head was out was a matter of routine. He noted that the delivery was completed by two minutes after the head was delivered which had to include some degree of time interval for a uterine contraction to start, indicating that the shoulders and body were delivered in a very short time which, in essence, excludes the possibility of shoulder dystocia. The fact that there was a three minute interval rather than a two minute interval from the delivery of the head, in his opinion did not make a difference because you have to wait for a contraction to start.

60. He further stated that there was no evidence in the case notes that led him to believe that excessive traction was applied. He stated there is huge encouragement in current practice to document everything, in particular, high risk and unpredicted cases like shoulder dystocia, and that he would be shocked if it was not documented. He could not reconcile himself to there being shoulder dystocia when nobody mentioned that it was there at the time nor do the detailed contemporaneous notes entered by the midwife at the delivery, at any time, refer to difficulty with delivering the shoulders nor the entity of shoulder dystocia. He stated that if supra pubic pressure was applied it would definitely be noted.

61. Commenting on the number of people present in the labour ward at the time of the plaintiff's birth, he stated that this would not be common practice in every hospital. Sometimes the midwife attending to the woman would be the only one in attendance at an instrumental delivery, sometimes a student midwife would be the next attendant. If the labour ward was quiet, the Sister-in-Charge might come in for assistance. He noted that there were quite a number of people at the delivery and that there may be a hospital protocol relating to that. It was not a universal one.

62. He was of the opinion that it remained unclear if the damaged shoulder was anterior or posterior. It is now recognised that a significant number of brachial plexus palsies occurred without relation to traction or without shoulder dystocia. He agreed that when shoulder dystocia occurs it is good practice to document which shoulder was anterior.

63. He said it was difficult to assess the occurrence of brachial plexus injury not associated with traction. He noted that the literature varied but it was approximately 30-40%.

64. He was of the opinion the shoulder irrespective of anterior or posterior position was not damaged by excessive lateral traction. He stated that injury to the anterior shoulder of the baby which comes into contact with the symphysis pubis can be caused by maternal propulsive forces.

65. He was of the opinion that it was not shoulder dystocia because:-

- The doctor has written that the baby delivered as is accounted for in the delivery note.
- The midwives in the room made no mention of it.
- There was a short period of time from delivery of the head to delivery of the shoulders.
- It was not documented in any of the notes.
- It was not documented in the computerised record that emanates from delivery.
- The shoulder dystocia protocol was not filed.

- The paediatrician made no reference to it.

66. He noted that in a labour ward of four thousand deliveries if you called the shoulder dystocia drill every time a baby's head was tight around the perineum, it would lose its effectiveness.

67. Based on the evidence available to him, he was of the opinion that on the balance of probabilities the likelihood that the left shoulder was posterior was greater than 50%. He was of the opinion that when you palpate a woman's abdomen in the third trimester of pregnancy, the proper detection of the side of the foetal back is not difficult. He noted it was a reliable tool for deciding which side of the mother, the baby's back lies on. He stated that he had practiced this technique for 25 years or more and he regarded it as reliable but noted it was a different finding from that of the position of the baby's head. He noted you can palpate the back at LOA, LOT, LOP and you can tell with good confidence which side the back is on in all of these positions but you cannot tell with good confidence where the head is in relation to this.

68. He accepted that he had not referred in his original report to the position of the baby on palpation at LOA but he had noted that it remained unclear whether the damaged left arm was posterior at delivery. He stated he based his view that the left arm was posterior on the basis of the documentation by the professional that the back was on the left. He accepted that it was his opinion on the balance of probabilities. He accepted that after the initial abdominal palpation of Mrs. Everard on admission that no further mention was made of the baby's position in the womb and that the professionals were unable to make a decision as to the exact position of the head in the pelvis on vaginal examination.

69. He stated that the position of the head changes quite a bit during labour and this can vary as labour progresses but that generally the side of the fetal back does not change. He accepted that the midwife's finding of LOA on palpation was not robust but that the L part of it was robust in that it was a reasonably good tool to measure which side the foetal back was on. He noted that he agreed with the findings in the paper by Webb & Ors and from the paper he deduced that the average from the study was that 70% of the time, midwives would get the position of the back correct. He stated that generally speaking, abdominal palpation is done at the beginning by the midwife when she takes over care and is not repeated throughout the labour so he would not have expected a second abdominal palpation but would have expected more information to have been gleaned from the vaginal examinations that occurred.

70. He stated that he had not confirmed at any point that the record keeping pertaining to the delivery was extremely poor. He accepted that it was good practice of the midwife to insert it, once the student had not noted the assuming of McRoberts. He stated that the reasons for Erb's palsy are complex and that not all babies who have Erb's palsy have had shoulder dystocia and he was certainly not disregarding the fact that the baby had Erb's palsy but had no evidence of excessive lateral traction.

71. In respect of Dr. Fattah's evidence that there was a clinical diagnosis of shoulder dystocia to be confirmed by axial traction. Prof. Morrison said that he did not understand the difference between a diagnosis and a clinical diagnosis and that Dr. Fattah was anticipating the possibility of shoulder dystocia that precautions were made for it but a diagnosis of shoulder dystocia was not made.

72. He accepted that the appropriate procedure to follow when shoulder dystocia is suspected is to do a trial of gentle or routine axial traction. If the doctor applied excessive or misdirected tractions, she was putting the brachial plexus of the child at risk.

73. He did not know how the original finding in Prof. Malone's report, that there was mild shoulder dystocia, was arrived at. If it was based on the prophylactic McRoberts manoeuvre, that does not comply with the formal diagnosis and when traction or pulling for the delivery was initiated, the baby was delivered, so, in his opinion, it was not shoulder dystocia.

74. He disagreed that it was mandatory to have a note of the position of the fetal back or head on delivery to establish which shoulder was anterior or posterior. He stated that he had never documented which shoulder was anterior or posterior if there was no shoulder dystocia.

75. He stated there are numerous deliveries where shoulder dystocia is anticipated and precautions made for it. When the delivery is completed and everything is apparently fine then you do not regard it as shoulder dystocia, and fill in the shoulder dystocia protocol or note the position of the anterior and posterior shoulders on delivery.

The credibility of the evidence of Prof. Fergal Malone

76. Objection has been made on behalf of the plaintiff to the credibility of the evidence of Prof. Malone for two main reasons:-

> (i) That he himself is the subject of a professional negligence action or actions alleging that there was a shoulder dystocia which was negligently mismanaged by him.
>
> (ii) By receiving the daily transcripts, reviewing them, and conveying his views to the solicitor for the defendant he was undermining his role as an expert professional medical witness and his credibility.

77. Obstetricians are professionals who have to deal with emergencies or potential emergencies on a regular basis. These emergencies may lead to the delivery of a baby who has been injured, and an obstetrician may be the subject of an allegation of professional negligence as a result of the delivery. The fact that an obstetrician is being sued for professional negligence in other proceedings where the allegation of negligence is similar, does not have any relevance or bearing on his or her credibility when giving evidence in a separate action arising from alleged professional negligence. The relevant criteria in considering credibility are his or her qualifications, experience, academic knowledge and the judges' assessment of the credibility of the evidence.

78. In respect of the second matter, the defendant sought leave to mention the case again to the court which was permitted on Thursday, 16th July, 2015.

79. Submissions were made on a Court of Appeal judgment of Irvine J of 8th July 2015, *Michael O'Driscoll (a minor suing by his next friend, Breda O'Donnell) v. Hurley and Health Service Executive.*

80. At para. 72 of the judgment, Irvine J. stated:-

> *"72. I also reject the submission that the High Court judge should have viewed Mr. Lanigan's independence as in doubt by reference to his evidence as to why he read the transcripts in the earlier proceedings. Firstly, he was asked to do so. Secondly, I see nothing irregular about what he did. In many instances witnesses will be in court for the entirety of the*

relevant proceedings and are fully conversant with all the evidence prior to giving their own evidence. Following the logic of the plaintiff's argument, witnesses should be excluded up to the point at which they give their own evidence, lest, by having been present to hear the evidence they might be better prepared for the giving of their own evidence and be less capable of being taken by surprise by the opposing party. Thirdly, the procedure of sending transcripts to witnesses is not, as was submitted, an abusive practice developed by the State Claims. Agency for the purpose of coaching its witnesses. It is a practice adopted regularly by parties in almost every type of litigation, particularly where the proceedings are lengthy and it is unreasonable to expect witnesses to attend court for the duration of the trial. The practice has perhaps relieved many an overburdened solicitor of the need to prepare a lengthy memo at the end of the day which would otherwise be forwarded to intended witnesses to keep them updated regarding the evidence. The transcript allows all concerned keep up to date with the evidence as it evolves. It is bizarre to suggest, particularly having regard to the Rules of the Superior Courts (No. 6) (Disclosure of Reports and Statements), 1998 (S.I. No. 391 of 1998), that expert witnesses should come to court blindly unaware of any alteration in the facts as were known to them when they prepared their expert report or should not be told of the opinions of other experts as expressed to the court."

81. The submission on behalf of the plaintiff to this Court is slightly different from the issue in the cited case. The objection of the plaintiff is the proactive action of Prof. Malone in reading the transcripts and giving advice to a solicitor for a defendant on developments on medical evidence in the trial.

82. It is quite appropriate that transcripts of the evidence were furnished to Prof. Malone. In litigation dealing with complex matters of professional medical practice, it is quite understandable that a solicitor conducting the defence of that litigation or for that matter, the solicitor for a plaintiff who has initiated the proceedings, would want to rely on the professional expert engaged, on any issue of controversy or potential controversy that would arise in the trial. Notwithstanding that, a professional expert witness should be careful to ensure that he or she is not acting in a biased way which is ultimately a matter for a trial judge to determine on the evidence by the expert.

83. Having heard Prof. Malone's direct evidence and cross examination, I am of the opinion that it was not his intention to be biased or partisan. His credibility was not undermined by the practice of reviewing the transcripts, and highlighting any issue, which may have a bearing on the decision of the court on the medical practice in question. Generally speaking if an issue arises during a trial there will not be a requirement for a further report to comply with the relevant statutory instrument about exchange of information, but if an issue arises in the course of a trial which has not been disclosed previously, it should be brought to the court's attention.

84. As can be seen from my ruling of 18th December, 2004, I did not regard the dispute about the position of the injured shoulder and left arm of the plaintiff in the womb as a new issue. It was always an issue in this case.

Summary of the evidence of Prof Feargal Malone

85. Prof. Malone prepared three written reports. The first was a report of 21st November, 2014. In this report, he noted that it was his opinion that it was likely that a mild case of shoulder dystocia occurred in this case despite the fact that the midwifery or obstetrician notes did not describe the presence of clinically significant shoulder dystocia.

86. In his second report of 28th November, 2014, he stated that his original report of 21st November, 2014, was based entirely on a review of the photocopied medical records of Lisa Everard and Sophie Everard and that since that date he had been provided with additional documentation including witness statements from the midwives and doctors involved in the delivery and that based on those witness statements, he was of the opinion that some aspects of his original reports should be amended.

87. The third report of 22nd December, 2014, was an addendum to his two original reports because he had been requested to clarify issues regarding the likely position of the fetal head during Lisa Everard's labour and delivery. At that stage, Prof. Malone had already given evidence on 11th December, and 16th December, day 7 and 8 of the hearing. On 16th December, 2014, objection was made to any further evidence he would give on the position of the baby in the mother's womb which the court ruled on, on 18th December, 2014.

88. Unfortunately, Prof. Malone's evidence due in part to this and other scheduling difficulties was heard over a period of four days on 11th December, day 7; 16th December, day 8; 23rd January, day 14; and 29th January, day 15.

89. As his evidence about the position of the plaintiff in Mrs. Everard's womb was heard by the court on all four days that he gave evidence. The court has summarised it together, although it is out of sequence in respect of the overall summary.

90. He noted that a BMI of 30 or greater is one of the recognised antenatal risk factors for the potential development of shoulder dystocia.

91. In respect of precautionary McRoberts he noted that there was no data to support its effectiveness, and that most professional organisations do not advocate it. There was however a commonly held practice of precautionary McRoberts manoeuvres being put in place after the head is delivered but before shoulder dystocia is actually diagnosed. It was a grey area and has probably crept into practice and is very commonly done by experienced midwives and experienced obstetricians after the head is delivered to try and ensure the maximum possible space present in the pelvis to allow the baby's shoulders to come out. It is very commonly applied and he would not criticise it. A McRoberts manoeuvre opens up the pelvis by a few more millimetres so you can see how many midwives and obstetricians would say it is a good thing to do if they are worried so it is commonly done.

92. Dealing with Dr. Fattah's description of the head being very tight around the perineum he stated it is quite a common description to describe the perineum as being very tight. Taken in isolation it has very little meaning because depending on a particular patient's size, the size of the head, the size of the vaginal opening, you commonly see the head being tight. The more extreme version of the perineum being tight is where the head is actually withdrawn back up into the vagina, not fully, but pulled up towards the vagina and that is what is called the turtle sign. It is like a very extreme form of the perineum being tight. In isolation the perineum being tight does not tell a lot on its own. In patients whose BMI is suggestive of obesity or over 30 BMI depending on thigh and vaginal opening size, it can be very common, in particular at term. It is very uncommon in a preterm case, or in a case where the baby is very small.

93. Dealing with his opinion on care in his first written report he stated that the only antenatal risk factor that was related to potential shoulder dystocia was a slight elevation in the maternal BMI of 30.7kg and that the only intra-partum risk factors for potential shoulder dystocia was the use of oxytocin augmentation and delivery with the assistance of vacuum. None of these risk factors are considered to be clinically useful in quantifying the probability of shoulder dystocia in advance either when arising

individually or in combination. In his opinion, it was likely that a mild case of shoulder dystocia occurred in the case despite the fact that neither the midwifery nor obstetrician notes on delivery described the presence of clinically significant shoulder dystocia. Most clinicians consider shoulder dystocia to be present when additional obstetric manoeuvres are required to complete delivery of the fetal body after delivery of the head by means of gentle traction.

94. After the head has emerged it is usually most effective if the delivery of the shoulders and body are simultaneously managed by both the mother's effort and the midwife or obstetricians efforts working together, and to wait until the next contraction arrives.

95. In this case, the fetal head was delivered at 10:41am, McRoberts manoeuvre was performed at 10:42am and the body was delivered at 10:43am. Based on the fact that McRoberts manoeuvre was documented as being performed after delivery of the fetal head, whether or not this was a prophylactic as opposed to a therapeutic measure would bring this case into the definition of shoulder dystocia. In addition, the obstetric registrar made a note of the perineum being very tight after delivery of the head, further validating the likelihood that was, in fact, a case of shoulder dystocia. However, given that the shoulder dystocia resolved so quickly with use of only the first and simple obstetric manoeuvre (McRoberts position) confirms. that this was a mild case.

96. Obstetrics brachial plexus injury can be caused by excessive lateral traction on the nerve roots of the fetal neck. This may occur during management of shoulder dystocia but it is also possible that such injury occurs due to maternal propulsive forces during delivery. He was of the opinion that up to half of all cases of obstetric brachial plexus injury occur in the absence of shoulder dystocia, with cases of obstetric brachial plexus injury noted following caesarean delivery and after apparently uncomplicated routine vaginal deliveries. Therefore, it is important to realise that the diagnosis of obstetric brachial plexus injury does not imply or confirm that excessive lateral traction was preformed by the birth attendant. In this particular case, he could not find evidence in the medical records that this mild case of shoulder dystocia was managed inappropriately. He could find no evidence of lateral traction being performed, the fact that this case of shoulder dystocia resolved so quickly with the use only of McRoberts manoeuvres supports the fact that shoulder dystocia was managed appropriately.

97. Prof. Malone prepared a second expert opinion report on 28th November, 2014. He noted that his interpretation of the written medical records initially was that during the delivery at 10:41 there was some degree of continued traction placed on the head. When that continued traction on the head had failed to achieve delivery at 10:42 the McRoberts position was adopted. When it was clarified that when the feetal head was delivered at 10:41, no traction was applied to the head at this time, but the McRoberts position was adopted and when it was clarified at 10:43 that traction was applied directly to the fetal head for the first and only time, one can no longer use a definition of shoulder dystocia because there has been no failure of the initial downward gentle traction required to complete delivery. By the accepted definition of shoulder dystocia this can only be diagnosed when there has been a failure of the routine traction required to complete a normal delivery.

98. He noted that he saw no evidence of excessive traction or evidence of lateral traction but that he was limited by reading the record. He could not interpret from written medical records whether strong or light traction was applied. He went on to state in his original report he had assumed some degree of traction he referred to it as diagnostic traction and then McRoberts manoeuvre had been applied and the baby was delivered within a minute of the McRoberts manoeuvre..

99. On the issue of Dr. Chro Fattah's notes that the baby was delivered pulling the head, he stated that, he thought there was a linguistic difference, and he had not paid any significant attention to the word pulling. He accepted that Dr. Chro Fattah had very good English.

100. He noted that if shoulder dystocia presented itself it would have been recognised because the staff were aware of the risks. They had referred to the fact it was a big baby. They were aware that the first stage of labour lasted six hours, the second stage of labour lasted nearly three hours. They are aware that a vaginal delivery was required and were aware of the patient's BMI.

101. He disagreed with Mr. Pyper's and Mr. Canty's opinion, that Mrs. Everard's description of some manoeuvres was the application of supra pubic pressure. He noted that supra pubic pressure is generally done by one attendant, and applied usually in the middle in the direction from which you want to dislodge the shoulder.

102. He stated he did not get the difference between a clinical diagnosis and an actual diagnosis of shoulder dystocia. He thought the definition of shoulder dystocia was very black and white. It is a delivery that requires additional manoeuvres to release the shoulders after gentle downward traction has failed. It is there or it is not there. There are many cases where there is suspicion that a shoulder dystocia might happen. It is wise practice by obstetricians and midwives to have their antenna up that something might happen which is good. He noted that if the shoulder dystocia alarm drill was called every time there was a suspicion, likelihood or a possibility or probability it would probably be counterproductive.

103. When asked to comment on the maternal propulsive force argument, Prof. Malone stated that most obstetricians now accept that brachial plexus injuries can be caused by propulsive forces because it is the only logical way to explain how you could have a shoulder dystocia, for example, when there is a caesarean section. By and large the fellows of the Royal College of Obstetricians and Gynaecologists and fellows of the American College of Obstetricians and Gynaecologists believe that there are a significant number of erb's palsy cases that occur due to posterior shoulder impaction. It is not possible to determine the relative proportionately but they do exist.

104. He noted that because the front to back of a baby's head is bigger than side to side, that the head tended to enter the pelvis sideways before delivery and thus the baby's back is either to the mother's left or the right, these positions are called left occipito anterior (LOA) and right occipito anterior (ROA). He noted that in the majority of the cases in obstetrics, the baby's back is to the left of the mother's womb and it was noted that on Mrs. Everard's admission that the baby's back was on the left. Usually, when the baby descends into the pelvis, it starts to rotate and the back of the head comes to the front.

105. It is only rarely that it rotates to the mothers back which is called occipito posterior (OP) which is a very complicated method of delivery and which did not occur in this case. He noted that in these left sided positions which can be left occipito anterior(LOA) left occipito transverse(LOT) and left occipito posterior,(LOP) the baby's right shoulder is related to the pubic symphysis and the baby's left shoulder is related to the sacrum. These are all reversed when the baby's back is on the mother's right side. He noted that it was only when the baby's back is on the mother's right side that the baby's left shoulder is related to the pubic symphysis. He stated it would be extremely unusual in a term sized baby for a baby to move from the left side and do a 180 degree turn and switch the shoulder.

106. He noted that obstetric manoeuvres when performed badly or incorrectly or incompetently damage the brachial plexus of the anterior shoulder when it is behind the pubic symphysis. Brachial Plexus injuries that affect the posterior shoulder have nothing to do

with midwifery or obstetrician manoeuvres. The damage occurs when the shoulder gets impacted or stretched at the sacral promontory, these forces are described as propulsive forces.

107. Prof. Malone stated that in his original report he had noted the midwifery abdominal assessment which referred to the back being on the left side as denoted by LOA. When reviewing daily transcripts he noted that the left shoulder was being described as the anterior shoulder which brought the matter into focus for him. From his reading there were three confirmed facts in the medical note.

- On admission at 23:45pm on 22nd January, 2011, an abdominal examination revealed the foetus to be in a cephalic presentation left occipito anterior (LOA) position and with three fifths of the head palpable.

- At 10:25am on Sunday, 23rd January, 2007, during a vaginal examination by Dr. Chro Fattah prior to performing the Kiwi vacuum delivery, the foetal head was noted to be at zero station with occipito anterior position.

- Ultimately, Sophie Everard was diagnosed as having an Erbs palsy affecting her left shoulder.

He was of the opinion that abdominal examination can accurately evaluate if the baby's back is on the left or the right side of the mother's womb. It is not so accurate that one can tell the degree of rotation of the back of the fetal head so if the baby's back is on the left, the back of the foetal head could be either LOA, LOT or LOP.

He was also of the view that it was essential in general midwifery practice for the care of a woman in labour when a CTG machine is being attached to a woman's abdomen that the trace should be placed over the anterior shoulder of the baby. To figure out where the baby's anterior shoulder is the midwife uses an abdominal examination to figure out where the back is. He noted that an obstetrician is only going to be called in most labours if something goes wrong or to help at the very end to deliver, for example to do a delivery by forceps or by vacuum. The obstetrician will tend to focus on the vaginal examination which will tell the degree of rotation of the head. At that time, it is not enough to know that the head is towards the left you definitely at that point need to know if it LOA, LOT or LOP because you are going to apply a forceps to the baby's head or a vacuum. He stated that it would be highly unlikely for a baby to start out with its back to the left side of the mother and then to flip over to the right side or for the baby's back to start out on the right side and flip over to the left side.

Referring to Dr. Fattah's operative notes that the head was palpated at OA prior to delivery. He stated that must mean on the balance of probability that the foetal head position early on in labour was one of the Ls, LOA, LOT or LOP and that a number of hours later at delivery it was direct OA so a rotation happened from one of the Ls to direct OA.

He was of the view that if the plaintiff's left shoulder was damaged by impaction behind the mother's public symphysis anteriorally, it would require a very unusual series of rotational movements by the foetus during labour. This would have required the fetal back to change its position within the mother's abdomen so that the fetal back moved to the right side of the mother's abdomen and given the relative shape of the fetal head and maternal pelvis this series of rotations would, in his opinion, be extremely unlikely. He was of the opinion that the likelihood was less than 10% or even less than 5% of that likelihood taking place.

Referring to a study by Sarah Webb and others which was referred to by Mr. Pyper, Prof. Malone stated that this study was trying to evaluate the position of the abdominal examination for the precise angle of rotation of the fetal head. He stated he never would have relied upon abdominal examination for that degree of position. He noted that it was quite accurate when it came to figuring out if the baby was left or right abdominally in that around 70% of the professionals got that right in this particular study.

He also referred to a further academic article titled *Current Validity of Leopold's Manoeuvres in Determining Fetal Presentation and Position* from the American College of Midwives, Journal of Nurse Midwifery, September/October 1985 by McFarlin & Ors, where the fetal back to the mother was assessed as being on the right side accurately 86.8% and on the left side of the mother 82.5% . He stated that both papers would reflect his conclusion that on the balance of probabilities abdominal examination is quite a good test to assess the position of the baby's back.

Prof. Malone accepted that while he had noted the abdominal examination placing the baby at LOA in the womb in both his reports of 21st and 28th November, 2014, he had not noted the significance of LOA in terms. of the position of the left shoulder as he was answering the specific pleadings in the case. He noted the large degree of emphasis almost a statement of fact that the left shoulder was anterior. Since he could not see any confirmatory evidence that supported it in any way, he looked at it again and noted that it could not be justified by the medical record and that is why he clarified the matter. It appeared to him that it was either an erroneous statement or a wrong assumption that needed clarification. He stated that his observations were made to the instructing solicitor as that was his only channel of communication.

The evidence of Michelle J. Grimm, Ph.D

108. Dr. Grimm a biomedical engineer who also specialises in bio mechanics gave evidence for the defence. Dr. Grimm prepared a written report of 14th September, 2013. Her evidence was heard by the court on 18th December, 2014. Dr. Grimm explained to the court that she uses computer modelling to replicate forces at work on an infant within the maternal pelvis to see what forces were at work in delivering an infant, and how much stretch occurs to the brachial plexus. These were maternal forces and clinician applied forces. Within the clinician applied forces Dr. Grimm and her team examined axial traction where the traction is applied along the axis of the infant spine and lateral bending which has been a contraindicated form of delivery practice. Dr. Grimm concluded that both lateral flexion by the clinician and maternal forces themselves can cause a brachial plexus injury. Dr. Grimm was part of the Task force on Neonatal Brachial Plexus Palsy, of the American College of Obstetricians and Gynaecologists. Their report has been referred to in the course of the hearing.

Dr. Grimm's evidence is of assistance as corroboration of the causation of brachial plexus injury by maternal propulsive forces.

I did not consider it relevant in determining specifically if Dr. Chro Fattah had applied inappropriate traction to the plaintiff.

Summary of the evidence on disputed fact

109. Mrs. Everard in her evidence to the court on 2nd December, 2014, stated that after dilation she was pushing for one hour and fifteen minutes. An episiotomy was performed, and the kiwi cup was applied. She stated that the head was delivered immediately after that, and they were told that the body and shoulder, were not coming naturally, and there were additional people present. She stated that her legs were raised above her chest , her knees were alongside her ears and people were holding her legs back behind her head and then there was pressure and pushing by staff from both sides of her body to the top of her legs, rolling in and pushing

with forearms. She believed it was two each side. There were people holding her legs behind her and two staff were pushing at the top of her legs on both sides, applying pressure just to the top of the legs and pushing very hard and rolling with their arms. She could not see but it was around where the baby was being delivered. She stated there was a lot of anxiety in the room and she was pushing, but all throughout her efforts were not enough and when the body was delivered, the sensation was that there was a pull.

110. She did not have any feeling that it was a natural effort but it was as a result of a pull. Mrs. Everard identified one midwife who had taken over from the midwife who was on duty during the night and a student midwife as being present, but also additional people, who she did not know or if they were nurses or midwives. She stated there were two each side together with the lady doctor, and when the baby was born a paediatric team. She was told about the Kiwi cup and said okay. She stated there was a cut and an additional cut. She believed that her body position was not changed until after the head was delivered. She did not remember being put into the lithotomy position that is that the legs were put up into stirrups. She remembered being put in the extreme position of her legs being moved backwards. She stated that she had no idea it was a big baby. She stated that she felt like a punching, there was pressure being applied. She did not see what was happening. She knew the delivery of the baby was very quick and that she was pushing at the time. She did not recall the number of contractions.

111. Leona Campbell was the midwife who took over from the midwife on duty during the night. She was a midwife with 18 years experience. She stated she came on duty at 8.15am, and carried out an abdominal palpation, and noted the baby was a long lie cephalic presentation, that the baby was engaged and that it was a big baby. Mrs. Everard was having three or four contractions every ten minutes, and the contractions were lasting 30 to 35 seconds. She stated that the practice was to allow an hour and 15 minutes to push provided there was progress. At 9:30 she requested Dr. Fattah's attendance to review. She stated that notes were being made by her frequently. She had noted that Dr. Fattah was present at 10,25am, and at 10.30 Mrs. Everard was placed in the lithotomy position. The paediatricians were present. As previously stated Ms. Campbell stated that the notes for 10,35 10.40 and 10,.41 were written by a student midwife Annie Dowdall. She stated that "McRoberts position assumed" was written by her as the student had not recorded it. She stated she also wrote on the CTG trace the writing that appears there. She stated that the McRoberts position was precautionary because it was a big baby and also mother had a BMI over 30. She stated that it was the mother's first baby , and it was possible the perineum was tighter as it had not been stretched before. It was common enough with women who had their first babies to be tight around the perineum. Ms. Campbell stated that the adoption of a precautionary McRoberts position was common enough. She stated that she did not have an actual memory of events but going from records and her own standard practice that is the routine they would adhere to. She stated that because there was an instrumental delivery the Clinical Nurse Manger would be present who was Siobhan Weldon. In addition again because it was an instrumental delivery you would have another midwife there who was Lisa Murphy. The father was also present in the room. She stated that as soon as the head would be delivered within seconds you would put the mother in the McRoberts position. She stated that her hand would be placed on the mother's fundus to feel another contraction coming on, and when the contraction comes the mother would push. Ms. Campbell stated that if suprapubic pressure was applied it would have been documented, and that there was no such pressure applied, and that the mothers description was not supra pubic pressure. She stated that after the head was delivered then another contraction would be the length of time it would take to deliver the body, because of the contractions being 3 to 4 in 10. If the body had not been delivered, extra help would be called and shoulder dystocia declared. She stated that the shoulders were delivered without any problem. She stated with an epidural the mother does not have the same sensation to push, so the midwife directs their pushing, sometimes they do not feel it at all.

112. There was no second episiotomy, and if shoulder dystocia was present it would have been noted. She stated that she would not have seen the perineum because of where she was standing and the Registrar would have no reason to tell her. She stated that she had not heard the concept before that the head tight around the perineum was a sign of the existence of shoulder dystocia. She accepted the student nurses name should have been recorded. She accepted that putting Mrs. Everard in the McRoberts position was a significant step. She accepted she should have put her signature on the late entry of Mc Roberts and that she placed it wrongly. She stated that it is not their practice to note the words spontaneous pushing or gentle traction. She stated that the case was only out of the ordinary to the extent that the mother was put into McRoberts because she had palpated a big baby and because of BMI. There was a potential for shoulder dystocia, but it was not shoulder dystocia. She stated that the people present were noted in the MIS system. She stated she signed it and that is the way the system is laid out. Her interpretation of Dr. Fattah's note was that the perineum was tight rather than the head being tight against the perineum. She denied it was an emergency, the head was delivered and within one contraction the body was delivered. She stated that if supra pubic pressure had been carried out that day they would have called an emergency, and additional people would have been in the room including the consultant. Ms. Campbell accepted that if there was shoulder dystocia pulling on the head would be the wrong thing to do. She denied that there was no wait for a contraction after delivery of the head, that they would have needed to wait for a contraction for the mother to push, the baby was delivered one minute later, which would be one contraction, an she would have pushed the baby out.

113. Ms. Lisa Murphy another midwife and Siobhan Weldon the Clinical Midwife Manager 2, gave broadly corroborative evidence to that of Ms. Campbell. Both accepted that they were not acting from direct memory but from the notes and their usual practice.

114. Dr. Chro Fattah, the Senior Registrar who delivered the plaintiff gave evidence on 14th and 15th January, 2015.

115. Dr. Fattah studied medicine in Iraq, and qualified there. She first came to Ireland in 2000, and worked as a Senior House Officer. She completed her MRCOG from the Royal College of Obstetrics and Gynaecology in November 2005, and was subsequently appointed to a number of Registrar posts. She completed a postgraduate masters degree in 2012 in University College Dublin

116. She commenced employment in Our Lady of Lourdes Hospital in Drogheda in July 2009, and was employed as a Senior Registrar there at the time of the plaintiff's delivery. She now works as a consultant obstetrician and gynaecologist in a large maternity teaching hospital in Kurdish Northern Iraq. In Our Lady of Lourdes there were up to 4000 deliveries per year. In the hospital Dr. Fattah was a trainer in the Practical Obstetric Multi- Professional Training, which involved training in obstetric emergencies including shoulder dystocia.

117. Dr. Fattah does not have actual memory of the plaintiff's birth, but based her evidence on the medical notes and her experience and training.

118. She stated that she was present at 10.25am, Mrs. Everard was placed in the lithotomy position. She did a vaginal examination, and then got the verbal consent of the mother for a suction instrumental delivery by Kiwi cup. The mother would have been told of the need for an episiotomy. The bladder had to be emptied by catheter. The Kiwi cup was applied and Dr. Fattah did three or four pulls and the head was delivered.

119. She stated that the mother was on the obese side, and the baby was big and had a big head, so probably it was tight around the perineum. It was also a first delivery for the mother. There was no sign of turtling or of the head retracting inside the vagina. The

head face and chin would have been delivered with Kiwi delivery. There was a risk of shoulder dystocia. It was a big baby, there was an instrumental delivery and BMI was over 30. Dr. Fattah did not regard tight around the perineum as a rare finding, but not very common. She described it as something in the middle. On that basis she stated that she asked for a precautionary McRoberts. She stated that the head thereafter was delivered with the first traction, and it was an easy delivery of the rest of the body. Her practice was if the head was not delivered after the next contraction she would have initiated the shoulder dystocia drill. Dr. Fattah stated that there was no attempt to deliver the baby until the McRoberts position was assumed, and then she would carry out one traction. She noted in this case that the body obviously came with the next contraction. She stated it was not a case of shoulder dystocia because the baby was delivered with one contraction.

120. She stated that the body was delivered with traction to the head. When she said pulling she meant routine gentle traction. Mrs. Everard would not have been told that the body was not coming. That would make the mother panic about the delivery. Everything would be explained afterwards. Dr. Fattah stated there was only one episiotomy.

121. Dr. Fattah stated there were three midwives present and a student midwife. The paediatrician was there as well. She stated that supra pubic pressure was never applied, that it was not a practice to apply supra pubic pressure without having diagnosed shoulder dystocia. Dr. Fattah felt that Mrs. Everard was mixing thing up. Dr. Fattah accepted that she had very good English. She denied that she had formed a view about this case before she had properly considered the chart.

122. She accepted there were four risk factors for shoulder dystocia, raised BMI, oxytocin augmentation, instrumental delivery and a big baby. She agreed there was a risk factor for shoulder dystocia, but did not accept Mr. Pyper and Mr. Canty's view that " very tight around the perineum" was a sign of actual shoulder dystocia. Dr. Fattah denied ever saying that there was a problem with the body and shoulders not coming naturally, nor could she confirm that anyone in the room said it. She stated that one normal axial traction is required to diagnose shoulder dystocia.

123. Dr. Fattah stated that they were all concerned about the delivery, but the baby's condition was very good at the time of delivery. Dr. Fattah accepted that she had made a clinical diagnosis of shoulder dystocia to be confirmed by axial traction, but stated that you cannot diagnose it until a gentle trial of the head.

124. She stated it was not her practice to pull very fast and to harm the baby. She had been a registrar at that time for 5 years so she knew how to deliver babies. She stated she had probably 3 or 4 instrumental deliveries in a week. She stated she would not do forceful traction on the head of a baby.

DISPUTED FACTUAL EVIDENCE

125. I am satisfied that the procedure of supra pubic pressure was not applied and that Mrs. Everard , while genuinely believing so, could not have been in a position to assess this, as she could not see what was happening. I am also satisfied that if it had been applied it would have been recorded in the medical notes. The McRoberts manoeuvre was employed and I believe that Mrs. Everard is confusing this manoeuvre with supra pubic pressure.

126. There was no shoulder dystocia emergency called by Dr. Fattah or the midwives involved in the care of Mrs. Everard. Ms. Campbell was the midwife who had been on duty from 8.15am and was the primary midwife looking after Mrs. Everard she wrote most of the midwifery notes. Lisa Murphy was the other midwife who assisted her at the delivery. Siobhan Weldon was the Clinical nurse manager who was present because it was an instrumental delivery. Annie Dowdall was the student midwife present.

127. There were deficiencies in the computer generated document at p49 and 50 of the medical notes, in that Ms. Campbell was not formally recorded as present nor was Ms. Dowdall the student nurse noted as present. Ms. Campbell explained that she had signed the document. Dr. Fattah stated that there was a bell for signalling a medical emergency such as shoulder dystocia. She also stated there was no shame in calling a shoulder dystocia emergency if it was required. There was not an additional call for help because of an emergency of shoulder dystocia.

128. Mrs. Everard's evidence about the body and shoulder not coming and panic in the room is in conflict with the medical notes and the recall of staff present depending from memory on the medical notes. Mrs. Everard had an epidural, it was a difficult labour and she would have been distressed. I accept her evidence that she heard the word's described. The context is difficult for the court to place as the court is satisfied that the relevant medical notes were completed contemporaneously and before any knowledge of injury to the plaintiff. There was no declared medical emergency. A labour ward is not a peaceful, tranquil place. There was difficulty in the labour as there had to be an instrumental delivery of the head. Dr. Fattah has accepted in evidence that they were all concerned, but she was emphatic that she would never tell the mother anything like that. There could have been a comment from a staff member present that there was difficulty with the shoulders and body being delivered, but the baby was actually delivered on the next contraction within two minutes of the head being delivered.

129. I do not see how the court could hold that the baby was pulled only and there was no pushing by Mrs. Everard. She accepts that she was asked to push and was pushing. She had an epidural which would have desensitised her pelvis. The likelihood is that she was pushing and that the clinician was using traction.

DISPUTED EXPERT OPINION EVIDENCE

"Very tight on the perineum"

130. I am satisfied that the description by Dr. Fattah at p53 of the medical notes of "very tight around the perineum" is not a sign of shoulder dystocia warranting the putting into effect of the shoulder dystocia protocol already described. I accept the evidence of Prof Morrison and Prof Malone, that this is not an uncommon condition particularly among first time mothers with a big baby. To put into effect the shoulder dystocia emergency protocol every time this condition existed would weaken the effectiveness of the protocol.

The position of the baby in the womb

131. Abdominal palpation to determine fetal position of labour onset is a regular midwifery practice. It is known as Leopold's Manoeuvre as stated in the article, Concurrent Validity of Leopold's Manoeuvre in Determining Fetal Presentation and Position by McFarlin & Ors. (Journal of Nurse and Midwifery, Vol. 30, No. 5, September/October 1985). It has the advantages of being readily available and is easy to perform and is non-invasive. The palpation was carried out by Ciara Dunne, a midwife at the hospital who qualified in September 2008 and worked at the hospital. Ms. Dunne explained in general, abdominal palpation carried out on a mother

in labour. The top of the mother's abdomen, the fundus is palpated to assess the lie of the baby. The baby can be a long lie with the head cephalic that is the head down to the mother's pelvis. It can be oblique, transverse or breached, breached being where the baby's bottom is towards the mother's pelvis. The head will be a lot harder than the buttocks. Palpation is carried out to ascertain the position of the baby's back and is done by the palms. of the hand on both sides of the mother's abdomen. Ms. Dunne noted that it is a smooth continuous object when you are feeling the baby's back and on the opposite side, the baby's limbs are more irregular. The third stage of palpation would be to assess if the baby's head is in the pelvis. She also stated that it was important to document the side the baby is lying on for listening into the fetal heart and commencing CT/ECG monitoring. She regarded the best place to put the transducer was a baby's anterior shoulder. Ms. Dunne notes of the examination are "on palpation fundus equal to dates, the lie is longitudinal, the position was LOA (left occipito anterior) the presentation was cephalic, three fifths palpable, contractions were three in ten at the time. The examination was carried out at 23.45pm on 22nd January, 2011.

132. Ms. Dunne stated that based on the combination of palpation fundal, lateral and pelvic floor, she was happy that the baby was in the LOA position. At 7.45am on 23rd January, 2011, she carried out a vaginal examination and was unable to confirm the position of the baby's head. Ms. Dunne stated that in her time as a midwife, she had never seen a baby go from left sided presentation to right sided presentation. In cross examination, it was put to her that abdominal palpation is extraordinarily inaccurate. She replied she was 100% sure that the baby's position was in the LOA position.

133. I am satisfied that abdominal palpation to ascertain the place of the baby's back in the womb is a reliable examination, but not to ascertain the place of the baby's head. I do not regard it as a confirmed fact, nor would I go as far as saying it establishes on the balance of probabilities that the left arm and shoulder of the plaintiff were posterior at delivery and thus not damaged on the symphysis pubis.

The quality of the medical notes

134. The plaintiff's experts Mr. Pyper and Mr. Canty were very critical of the notes while Prof Morrison was of the opinion that the medical notes gave a good account of the delivery procedure. I am satisfied that the criticism of the plaintiff's experts of the notes is not warranted. The court regards the quality of the record as good apart from the court's comments that in a case where precautions are made for suspected shoulder dystocia, it should be noted on the medical record which shoulder was anterior to the symphysis pubis. It has been the accepted practice to date that the position of the anterior and posterior shoulder is not noted when there has not been a declared case of shoulder dystocia.

Precautionary McRoberts

135. The practice of midwives and doctors putting a mother in labour into the McRoberts position as a precautionary measure is not indicative of either an actual shoulder dystocia emergency or the calling without naming it of the shoulder dystocia protocol. The court accepts the evidence of both Prof. Morrison and Prof. Malone that it would substantially lessen the effectiveness of the shoulder dystocia protocol, if it was called at a time when there was a risk of shoulder dystocia but not actual shoulder dystocia. It would mean that the protocol would be called into effect far more often than necessary if the risk of shoulder dystocia did not materialise. It is my view that it is more prudent, to take whatever steps are necessary by way of risk prevention for shoulder dystocia, and for the doctor in charge of the delivery to call for the emergency once satisfied that actual shoulder dystocia exists. While it is not a practice which is advised in the guidelines I am satisfied that the use of a precautionary McRoberts manoeuvre is not uncommon. This manoeuvre has no adverse effects on the baby or the mother. Mr. Canty disapproves of the practice and Mr. Pyper accepted that it was not uncommon. In the circumstances of this case, it is appropriate as it was a big baby. Generally, it would be helpful if there was a protocol covering the issues.

Excessive traction

136. This Court cannot rule out the possibility that Dr. Chro Fattah mistakenly did not identify an actual shoulder dystocia and proceeded to use improper downward or lateral traction which resulted in the injury. The court is satisfied however that pulling as a word has been regularly used in maternity hospitals to describe traction. It is the word that is used for traction in instrumental delivery. The description of pulling on the head in a medical note of a delivery is not in itself sufficient evidence for a court to hold there was excessive traction.

Underreporting of shoulder dystocia

137. I accept Mr. Pyper's evidence that instances occur where in fact there has been shoulder dystocia, and it has not been called as such. However it is clear from the evidence that the practice in Irish maternity hospital is to encourage doctors who are supervising difficult deliveries to watch out for this emergency, to call it as an emergency and invoke a protocol if necessary, and to properly document the procedure. The court notes that in the academic papers referred to by Mr. Pyper, a form of traction was applied which according to the defendant's expert evidence has been frowned upon as a practice in Irish maternity hospitals for a substantial period of time.

Use of traction

138. It was appropriate once the head was delivered and tight to the perineum, and after the McRoberts position was assumed to use appropriate axial traction to deliver the baby.

The time between the McRoberts position being assumed and the delivery

139. Mr. Pyper is of the opinion that not enough time was given to free the impaction of the shoulder on the symphysis pubis. The evidence of Dr. Fattah and the midwives was that the baby was delivered on the next contraction after Mrs. Everard was put into the McRoberts position. Mr. Pyper was satisfied that the left shoulder which was injured was anterior at this time which is disputed. The undisputed fact that the baby was delivered on the next contraction after the McRoberts position was adopted would indicate that the shoulder and body were delivered without difficulty but that does not rule out that the clinician pulled too hard to achieve the delivery. It was an appropriate practice for the clinicians to await the next contraction before delivery, and the fact of a very short period of time from delivery of the head to delivery of the shoulders and body, in my view is a contra indication for shoulder dystocia.

Maternal propulsive forces

140. The basis of the plaintiff's allegations that excessive traction was applied and caused injury to the left arm and shoulder was the opinion of Mr. Pyper that most brachial plexus injuries are as a result of excessive traction. He is sceptical of the alternative explanation of propulsive forces. He was of the opinion that there was no other reasonable explanation. He assumed there was an undeclared shoulder dystocia emergency. He is incorrect in that assumption, and that there was no other reasonable explanation for the injury.

141. Both the Royal College of Obstetrics and Gynaecologists in Guideline No. 42 on shoulder dystocia and the American College of

Obstetricians and Gynaecologists in the publication, *Neonatal Brachial Plexus Palsy* written in 2013 in collaboration with the Society of Obstetricians and Gynaecologists of Canada accept that brachial plexus injuries can be caused by the mother's propulsive forces independent of any action by the clinician delivering the baby.

142. While the matter was not canvassed in great detail with Mr. Canty, he accepted that it can occur but is rare. Both Prof. Morrison and Prof. Malone agreed with the RCOG Guidelines and the American College of Obstetricians and Gynaecologists.

143. The court is satisfied that brachial plexus injuries in babies on delivery can be caused by maternal propulsive forces particularly when coming into contact with the sacral promontory but also coming into contact with the symphysis pubis. The literature will indicate that this causation of the injury is less than causation as a result of shoulder dystocia and/or excessive traction.

144. It is appropriate to quote extracts from the relevant guidelines on this issue.

"Extract from Royal College of Obstetricians and Gynaecologists Guidelines No. 42

> *"Not all injuries are due to excess traction by the accoucher and there is now a significant body of evidence that maternal propulsive force may contribute to some of these injuries. Moreover, a substantial minority of brachial plexus injuries are not associated with clinically evident shoulder dystocia. In one series, 4% of injuries occurred after a caesarean section. Specifically where there is Erb's palsy, it is important to determine whether the affected shoulder was anterior or posterior at the time of delivery, because damage to the plexus of the posterior shoulder is considered not due to action by the accoucher."*

145. Three extracts from the report Neonatal Brachial Plexus Palsy, the American College of Obstetricians and Gynaecologists:-

> *"Inasmuch as a transient or protracted arrest of descent of the fetal shoulder can involve the anterior or posterior, or both shoulders, it also is necessary to distinguish between shoulder dystocia resulting from arrest of the fetus' anterior shoulder behind the symphysis pubis and dystocia resulting from arrest of the posterior shoulder at the level of the sacral promontory or in the hollow of the pelvis. The former is clinically evident on delivery of the fetus' head, whereas the latter occurs before delivery of the fetus' head and is not clinically apparent or ascertainable at the time of its occurrence. In both instances, it is the arrest of descent of the affected shoulder, despite the ongoing downward movement of the axial skeleton, which widens the angle between neck and impacted shoulder and stretches the brachial plexus." (Preface xiii)*
>
> *"The task force recognises that knowledge about NBPP is continually evolving. What is known at this time with reasonable medical certainty is that NBPP occurs infrequently and can be caused by maternal (endogenous) forces or clinician – applied (exogenous) forces or a combination of both. Similarly, NBPP can occur with or without associated, clinically recognisable shoulder dystocia. Finally in the presence of shoulder dystocia, all intervention by way of ancillary manoeuvres – no matter how expertly performed – will necessarily increase strain on the brachial plexus." (Executive summary xviii)*
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> *"As the fetus proceeds through the cardinal movements of labour, it will enter the maternal pelvis through the pelvic inlet, pass through the bony structures of the pelvis girdle, and then move through the pelvic outlet before crossing the perineum. Its shoulders must pass at least two bony structures that can impede forward motion – the sacral promontory in the posterior aspect of the birth canal and the symphysis pubis on the anterior side. Impact of these structures may be transient in nature – and cleared through the action of maternal forces alone – or may require manoeuvres to alleviate the impaction. Contact between the posterior shoulder and the sacral promontory occurs before the head delivers; the head will typically be at the level of the mid pelvis (9). It is not possible to diagnose or evaluate such an impaction, and the clinician must proceed with a delivery plan on the basis of observable indicators of progress.*
>
> *Contact between the anterior shoulder and the symphysis pubis typically occurs as the head delivers over the perineum. As the anterior shoulder impacts the symphysis, the head and neck will advance as a result of the next contraction and may retract back on the perineum. This phenomenon of head – neck retraction tightly against the perineum is commonly referred to by clinicians as a 'turtle sign' from such signs, shoulder dystocia may be suspected. Conversely, no turtle sign may be observed (possibly due in part to variations on maternal anatomy that mask their retraction), and the shoulder may be cleared from the impaction with the next push or contraction solely as a result of maternal (endogenous) forces.*
>
> *In an uncomplicated vertex delivery, all applied forces will move the infant as a single structure with minimal differential motion between the regions of the body. However, when one of the shoulders is restrained by the bony pelvis, any forces that continue to advance the head and neck will cause a stretch in the brachial plexus. Forces applied to the fetal pelvis by maternal contractions and Valsalva manoeuvres would be transmitted up the fetal spine. The spine is a column that transfers force along its length – in this case, from the sacrum to the cervical region and the head. An impaction of one of the shoulders will not eliminate the force transmitted from the pelvis to the spine. Therefore, if the shoulder is restrained, maternal forces will continue to move the head and neck forward, widening the angle between the neck and shoulder and causing traction on the brachial plexus (1)." (Pathophysiology and causation P27 Chapter 3.)*

The Law

146. The court has to be satisfied on the balance of probabilities, that Dr. Fattah the servant or agent of the defendant, caused the plaintiff's injury, by acting in a negligent manner, such as no medical practitioner of equal specialist or general status and skill, would so act, acting with ordinary care.

147. In *William Dunne v. National Maternity Hospital and Reginald Jackson* [1989] I.R. 110 the Supreme Court set out the test for establishing negligence in diagnosis or treatment on the part of a medical practitioner as follows:-

> "The true test for establishing negligence in diagnosis or treatment on the part of a medical practitioner is whether he has been proved to be guilty of such failure as no medical practitioner of equal specialist or general status and skill would be guilty of if acting with ordinary care."

148. I did not consider it appropriate to rely on the English authorities opened by the defendant, as all judgments were based on factual matters, and the fact that maternal propulsive forces was accepted as a cause of shoulder dystocia, was a matter which this court had to deduce from primary sources.

149. **What Are The Alternative Causes Of The Injury?**

- In accordance with the plaintiff's case that Dr. Chro Fattah instead of declaring a shoulder dystocia in accordance with the protocol decided to deliver the baby by traction and pulled too hard other than by gentle axial traction and injured the baby's left shoulder, which was at that time anterior to Mrs. Everard's symphysis pubis.

- The baby's left arm and shoulder was always posterior to the symphysis pubis and thus the injury could not have been caused by the clinician.

- The baby's left shoulder and arm was anterior and damaged in contact with the symphysis pubis, but by propulsive forces rather than by improper traction by the clinician.

150. I do not accept that the only reasonable cause of the injury to the plaintiff was excessive traction applied to the baby's head by Dr. Fattah. She was a very experienced practitioner who has denied using improper traction on the baby's head. The choice of pulling in her note was unfortunate but it is a term that has been used historically for traction. In my view the plaintiff is asking the court to apply a form of "res ipsa loquiter" by submitting that the injury occurred and the only explanation is the one put forward by the plaintiff. That is not the case. The defendant has established without doubt that there were other possible causes, and that in fact the more likely cause was injury to the left arm and shoulder of the plaintiff when it was posterior in the womb. In the circumstance I have to dismiss the action.