COMMONWEALTH OF THE BAHAMAS
IN THE SUPREME COURT
COMMON LAW & EQUITY DIVISION
2015/CLE/GEN/01125
BETWEEN:
TK
(An Infant, by his Next Friends TK AND LK)

Plaintiff

AND
DR. GREGORY CAREY

Defendant

Before:	The Honorable Mr. Justice Loren Klein
Appearances:	Mrs. Krystal Rolle KC, Ms. Shantelle Munroe for the Plaintiff Mr. Damian Gomez KC, Mr. Owen Wells for the Defendant
Hearing Dates:	2-4 March 2021, closing submissions 21 March, 4 May 2022

RULING

KLEIN J.

Negligence—Clinical negligence—Operative delivery—Vacuum and forcep-assisted birth—Baby allegedly suffering severe brain injury due to sequential use of vacuum and forceps by attending doctor during delivery—Prolonged time in birth canal—Oxygen deprivation—Hypoxic-Ischemic Encephalopathy (HIE)—Test for clinical negligence—"Bolam" test—"Bolitho" qualifications to Bolam test—Duty of Care—Medical Act 2014—Code of Conduct—Causation—Res Ipsa Loquitur—Whether there is any other medical explanation for the Plaintiff's injury—Child suffering cerebral palsy, epilepsy and paraplegia—Injuries Permanent—Expert Evidence—Conflicting Evidence—Damages—Quantum—Use of Judicial College Guidelines for assessing general damages in Personal Injury Cases—Use of Odgen's Table—Whether current rate of investment return (discount rate) applicable to England and Wales can be applied in this jurisdiction—Suitable adjustments to multipliers to take account of local conditions.

INTRODUCTION AND BACKGROUND

A. Introduction

1. It has been said that "…*the most dangerous journey by any individual is through the four inches of the birth canal*" (Jeffcoate, "Prolonged Labour" (1961), *Lancet* 67).

2. This case is a tragic but textbook example of that. It concerns a claim in clinical negligence arising from the birth of the plaintiff, TK, represented by his father TK Snr and mother LK as his Litigation Friends. TK, who is now 11, was delivered with the aid of ventouse extraction and forceps, and claims he suffered severe and permanent brain injuries during birth that have left him in a near vegetative state.

3. TK was born at about 11:45 a.m. on the 5 August 2012 at the Princess Margaret Hospital ("the Hospital"). The defendant, Dr. Gregory Carey, is a general practitioner who provided antenatal care and treatment to LK after she became pregnant in about November 2011. He also undertook her delivery when she went into labour in the early morning of 5 August 2012.

4. Following an unsuccessful attempt at operative delivery by the defendant using a ventouse (vacuum extractor) and forceps, TK was eventually delivered by Dr. Homer Bloomfield, a consultant obstetrician to the Hospital, who was summoned to assist. The plaintiff was born unconscious and was not breathing. He was resuscitated, immediately intubated and taken to the neonatal intensive care unit ("NICU") and placed on a ventilator, where he remained for several weeks.

5. TK has cerebral palsy and other very serious neurological conditions, including epilepsy and near "100%" physical disablement, which it is alleged he sustained as a result of perinatal hypoxic-ischaemic encephalopathy ("HIE"). HIE is a serious brain injury normally caused by oxygen deficiency (hypoxia) and/or reduced blood flow (ischemia) to the brain during delivery. He now brings this claim in respect of those injuries and claims substantial damages.

Outline of the Proceedings

6. The claim was commenced by Writ of Summons filed 31 July 2015. A Statement of Claim ("SOC") was filed 16 November 2016, and an amended SOC (with the leave of the Court) was filed on 25 November 2020. The defendant filed an amended defence on 5 February 2021.

7. The original Writ named The Public Hospitals Authority ("PHA") as the second defendant. However, an application was made by the Office of the Attorney-General to have the claim against the second defendant struck out on the grounds, *inter alia*, that it did not disclose a reasonable cause of action against the second defendant. By Order dated 18 October 2017, Charles J. (as she then was) ordered that the Writ of Summons and SOC against the second defendant be struck out with costs. Thus, the amended SOC named Dr. Carey as the sole defendant.

Allegations of Negligence

8. The plaintiff pleaded a raft of negligent acts against the defendant (which are set out for completeness):

(i) Taking on the task of delivering the plaintiff knowing that he was not himself fully qualified and/or capable of handling and/or addressing any and all foreseeable problems which might arise in the course of the birthing process.
(ii) Failing to refer LK to a consultant obstetrician upon recognizing that he was unable to get the plaintiff to pass through the birth canal.
(iii) Knowingly attempting a vacuum assisted vaginal delivery while lacking the necessary training, skill, competence and experience for the proper and appropriate performance of the same.
(iv) Improperly and/or ineffectively using the vacuum extractor for vacuum assisted delivery of the plaintiff and thereby failing to achieve such delivery.

(v) Causing and/or allowing the prolonged application of the vacuum cup to the plaintiff's head during the attempted, failed and aborted vacuum-assisted vaginal delivery.

(vi) Failing to immediately proceed to a Cesearean Section after having failed to deliver the plaintiff via vacuum-assisted vaginal delivery.

(vii) Failing in all the circumstances if he was himself unable to perform a Cesearean Section to refer LK to a consultant obstetrician for a Cesearean Section to be performed emergently.

(viii) Improperly, after a failed vacuum-assisted vaginal delivery then proceeding with forcep assisted vaginal delivery when such step was wholly inconsistent with the standard of care in such circumstances.

(ix) Resultantly, causing and/or allowing forcep usage to the plaintiff's head after the prolonged cup application to the plaintiff's head associated with the failed and aborted vacuum extraction.

(x) Lacking in any event the necessary training, skill, competence and experience for the proper use of the forceps for such forcep-assisted vaginal delivery and thereby ultimately again failing to achieve delivery of the plaintiff by this method.

(xi) Causing and/or allowing the plaintiff to remain in the birthing canal for a prolonged period of time while failing to take the appropriate measures to prevent an adverse outcome.

(xii) Causing and or/allowing the Plaintiff to experience the deprivation of oxygen and blood flow during the multiple failed and aborted assisted vaginal delivery attempts.

(xiii) In the premises, displaying gross mismanagement of the labour of LK and the delivery of the plaintiff in the manner set out above.

9. There is obviously a degree of overlap in the pleaded particulars, but the vast majority of them (e.g., 'iii' to 'xii') urge that the defendant was negligent in his attempts at operative delivery. Distilled, the main allegations are that the sequential and improper use of the devices caused injury to the plaintiff and/or caused the plaintiff to remain trapped in the birth canal for a prolonged period of time, depriving him of oxygen and blood flow and causing the HIE.

10. All of these actions are said to be wholly inconsistent with the standard of care required of a physician skilled in the field of obstetrics, and are said to have caused or contributed to the injuries sustained by TK during the delivery process. The plaintiff also relies on the doctrine of *res ipsa loquiter* to establish negligence on the part of the defendant.

11. By defence to the amended claim, filed 5 February 2021, the defendant denied the breach of duty and particulars of negligence alleged. The main points of his defence were as follows:

(i) he was fully qualified in the specified field of medicine and to use all necessary medical instruments during birth;

(ii) the vacuum suction device was inoperable and therefore never applied in a way that caused any harm, and similarly that the forceps did not lock, and consequently also caused no harm;
(iii) fetal and maternal monitoring indicated that there was no need to move to a C-section as the baby's fetal heart rate ("FHR") did not register that he was in any distress; and
(iv) the plaintiff's injuries are attributable to other medical causes, including developmental abnormalities, or unknown causes.

Trial material

12. By way of trial material, I was provided with the following: (i) a bundle of pleadings; (ii) a bundle of witness statements ("WS"); (iii) three bundles of documents from the plaintiff (one filed 4 June 2018, and two supplemental bundles filed 21 December 2020); (iv) a bundle of documents from the defendant (filed 4 June 2020); (v) opening and closing submissions, along with authorities, from the plaintiff; and (vi) closing submissions from the defendant. The bundles of documentary evidence were agreed between the parties. I was also provided with a transcript of the evidence for each day and reviewed the Zoom recordings of the trial.

B. Background facts

13. I set out the background facts relevant to the issues for the determination, which are based on the Court's reading of the contemporaneous clinical notes and the evidence. To the extent that my narrative contains any disputed facts that are material to the resolution of this case, they will be addressed later on in the Ruling.

14. During December 2011, LK attended the office of the defendant and a pregnancy test confirmed that she was pregnant. Following that visit and up to August of 2012, the defendant provided antenatal care, which included regular examinations and checks of LK. The checks confirmed that LK and the baby were normal and that there were no complications with either mother or child.

15. LK's water "broke" late on the evening of the 4 August 2012, and she was taken to the Hospital by TK Snr. She was admitted to the Private Surgical Labour Unit of the Hospital at about 4:15 a.m. on 5 August 2012. She was assessed by the midwife. Her gestational age was 40 weeks and three days, and her presentation was cephalic (normal), with a FHR of 138 bpm (beats per minute), as measured by the Cardiotocograph ("CTG", or sometimes "CTC"). She was 3 cm dilated at this point. An enema was given at 5:20 a.m. ("with good effect") and she was monitored.

16. She was examined by the defendant at 5:45 a.m., at which point she was 3-4 cm dilated and 90% effaced. An epidural was attempted at 8:25 a.m. by the anesthesiologist, but abandoned after a "spinal tap" occurred (which is what happens when the needle used to administer the epidural inadvertently punctures the membrane surrounding the spinal cord). Further

examinations were conducted at 9:00 a.m., at which point dilation was 5 cm and fully effaced, and at 11:00 a.m., at which point she was fully dilated.

17. Delivery started at about 10:55-11:00 a.m. The patient was encouraged to push by the defendant and was said to be "making good progress". However, the defendant observed that the vaginal opening was small and performed an episiotomy (snipping of the vaginal opening) to assist the process. It appears that after some 20-30 minutes of attempts at spontaneous vaginal delivery ("SVD"), the defendant determined that operative assistance would be required. At that point, attempts were made to deliver the baby, firstly by a vacuum extractor, but that device was said to be malfunctioning, and therefore forceps were attempted. This was said to be "*progressing slowly, but difficult*". After these efforts collectively failed to deliver the baby, the defendant had the nurse call a consultant Obstetrician and Gynecologist, Dr. Harold Bloomfield, for assistance. At this point, the CTG reading was said to be 133 bpm, which was recording as being in the normal range.

18. Dr. Bloomfield arrived at about 11:35-11:40 a.m. and delivered the baby with the use of the forceps, which was achieved at about 11:45 a.m. The baby was delivered with the cord around its neck. He was unconscious and not breathing. The defendant's note recorded that the FHR was 133 bpm at delivery, which was indicated to be a "normal variation". At delivery, the report recorded that the baby was "flat" and had Apgar scores of 2 @ 1, 3 @ 2, and 4 @ 10. (The Apgar score, formed from the mnemonic of the surname of US physician Virginia Apgar, who pioneered the test, is a score used to assess the overall condition of a newborn on five characteristics—appearance, pulse, grimace, activity, respiration—each with a maximum score of 2, recorded during the first few minutes of life.)

19. The baby was resuscitated by Dr. Steve Lochan, the attending pediatrician, and transferred to the NICU.

20. Several weeks later, TK was diagnosed as having "West Syndrome". He was later examined by Dr. Melvin Grossman in the United States during 2015 and diagnosed with "Lennox Gastaut Syndrome" ("LGS"), and also noted to have microcephaly.

ANALYSIS AND DISCUSSION

21. The plaintiff and defendant were only able to agree a bare statement of facts as follows:

(i) The defendant is a medical practitioner by profession.
(ii) The plaintiff's mother LK was a patient of the defendant.
(iii) The defendant diagnosed LK as being pregnant and undertook her antenatal care and treatment during the course of her pregnancy.
(iv) On 4th August 2012, LK went into labour. The defendant also undertook the delivery of the plaintiff.

(v) In the course of attempting to deliver the plaintiff the defendant attempted assisted delivery of the plaintiff via a vacuum suction device. The defendant was unable to deliver the plaintiff via this method.
(vi) The defendant attempted forcep assisted delivery. The defendant was unable to deliver the plaintiff via this method.
(vii) The plaintiff was ultimately delivered by Dr. Homer Bloomfield by means of forcep-assisted vaginal delivery.
(viii) The plaintiff was born unconscious and was not breathing. The plaintiff was resuscitated by Pediatrician and Neonatologist Dr. Steve Lochan. The plaintiff was then taken to an incubator and placed on a ventilator.

22. There were no agreed issues, but based on the pleadings and evidence, the primary issues for determination are as follows:

(i) Whether the defendant owed a duty of care to the mother and unborn child;
(ii) Whether the defendant was negligent in the attempted delivery of the plaintiff, according to the legal test for determining clinical negligence (see below);
(iii) If so, whether the plaintiff suffered personal injuries, loss and damage as a result of the defendant's negligence, i.e., whether the alleged negligent delivery was the cause of the plaintiff's injuries; and
(iv) If 1, 2 and 3 are answered in the affirmative, what is the proper quantum of damages for such loss and damage.

23. The plaintiff also identified the following issues as disputed issues of fact for the Court's determination: (i) whether or not the suction device was inoperable and whether this was the reason the vacuum-assisted delivery failed; (ii) whether the forceps failed to grip TK's head and whether or not this is the reason why the defendant's attempt at forcep-assisted delivery failed; and (iii) whether TK's brain damage and resultant permanent injuries are the result of a congenital disease.

C. The law

24. To establish medical negligence, the plaintiff must establish four key elements: (i) that the defendant owed a duty of care to the mother and child; (ii) that the defendant breached that duty based on the relevant test (i.e., the test formulated in the case of **Bolam v Friern Hospital Management Committee** [1975] 1 W.L.R. 582, as qualified by **Bolito v City and Hackney Health Authority** [1997] 3 W.L.R. 232); (iii) that the defendant's acts or omissions caused the injuries which were foreseeable (factual and legal causation); and (iv) that there was resulting damage or injury as a result of the breach.

Duty of care

25. A duty of care in a doctor-patient relationship is usually easy to establish, and a medical practitioner so engaged has a contractual duty to attend and treat the patient and to exercise

reasonable skill and care in so doing: **Eyre v Measday** [1986] 1 All ER 488. In **Sidaway v Governors of Bethlem Royal Hospital** [1985] A.C. 871, [904B], Lord Templeman said (*obiter*):

> "The relationship between doctor and patient is contractual in origin, the doctor performing services in consideration for fees payable by the patient. The doctor, obedient to the high standards set by the medical profession impliedly contracts to act at all times in the best interest of the patient."

26. The learned editors of Jackson & Powell on Professional Negligence (5th Ed.) London, 2002), have expressed doubt as to whether the duty to "*act at all times in the best interest of the patient*", which was said to be implied in the doctor-patient contract in **Sidaway,** adds anything to the duty to exercise reasonable skill and care on the patient's behalf (para. 12-009). The duty to "*act at all times in the best interest of the patient*" (as well as other duties) is also to be found in the Code of Conduct for doctors contained in the *Medical Regulations* (Ch. 244). That Code is described as a "guide", however, and no arguments were addressed to me on whether the terms of the Code can be implied into the doctor-patient contract. So the issue does not arise for consideration here.

27. In any event, the plaintiff does not specifically seek to rely on any of the duties mentioned in the Regulations. But it is worthwhile to note that one of the many duties enumerated under the "*standard of care expected of the attending medical practitioner*" includes the following: "*A medical practitioner who avails his patient of any supporting medical service is responsible to be reasonably confident that this service is of an adequate standard and is reliable*."

Standard of Care

28. The test to be applied in the case of a claim for breach of duty in clinical negligence is set out in the leading case of **Bolam v Friern Hospital Management Committee** (*supra*), called the "*Bolam*" test. The essence of the test is described in two passages by McNair J (at pg. 586, 587) as follows:

> "The test is the standard of the ordinary skilled man exercising and professing to have that special skill. A man need not possess the highest expert skill; it is well established law that it is sufficient if he exercises the ordinary skill of an ordinary competent man exercising that particular art.
> […]
> …he is not guilty of negligence if he has acted in accordance with a practice accepted as proper by a responsible body of men skilled in that particular art. I do not think there is much difference in sense. It is just a different way of expressing the same thought. Putting it the other way around, a man is not negligent if he is acting in accordance with such a practice, merely because there is a body of opinion who would take a contrary view."

29. The **Bolam** test is applied subject to the interpretation enunciated by the House of Lords in **Bolito v City and Hackney Health Authority** (*supra*), which explained the approach to the

consideration of medical evidence adduced in defence of an allegation of clinical negligence. In **Bolitho**, Lord Browne-Wilkinson stated as follows [p. 243]:

> "These decisions demonstrate that in cases of diagnosis and treatment there are cases where, despite a body of professional opinion sanctioning the defendant's conduct, the defendant can properly be held liable for negligence (I am not here considering questions of disclosure of risk.) In my judgment that is because, in some cases, it cannot be demonstrated to the judge's satisfaction that the body of opinion relied upon is reasonable or responsible. In the vast majority of cases, the fact that distinguished experts in the field are of a particular opinion will demonstrate the reasonableness of that opinion. In particular, where there are questions of assessment of relative risks and benefits of adopting a particular medical practice, a reasonable view necessarily presupposes that the relative risks and benefits have been weighed by the experts in forming their opinions. But if, in a rare case, it can be demonstrated that the professional opinion is not capable of withstanding logical analysis, the judge is entitled to hold that the body of opinion is not reasonable or responsible. I emphasize that in my view it will very seldom be right for a judge to reach the conclusion that views genuinely held by a competent medical expert are unreasonable. The assessment of medical risk and benefits is a matter of clinical judgment which a judge would not normally be able to make without expert evidence. As the quotation from Lord Scarman makes clear, it would be wrong to allow such assessment to deteriorate in to seeking to persuade the judge to prefer one of two views both of which are capable of being logically supported. It is only where a judge can be satisfied that the body of expert opinion cannot be logically supported at all that such opinion will not provide the bench mark by reference to which the defendant's conduct fall to be assessed."

30. In **C v North Cumbria University Hospital NHS Trust** [2014] EWHC 61 (QB), Mr. Justice Green summarized the principles and considerations which apply to the assessment of expert evidence in clinical negligence cases as follows, a passage which admits of careful study:

> "(i) Where a body of a body of appropriate expert opinion considers that an act or omission alleged to be negligent is reasonable a Court will attach substantial weight to that opinion.
>
> (ii) This is so even if there is another body of appropriate opinion which condemns the same act or omission as negligent.
>
> (iii) The Court in making this assessment must not however delegate the task of deciding the issue to the expert. It is ultimately an issue that the Court, taking account of that expert evidence, must decide for itself.
>
> (iv) In making an assessment of whether to accept an expert's opinion the Court should take account of a variety of factors including (but not limited to): whether the evidence is tendered in good faith; whether the expert is "responsible", "competent" and/or "respectable"; and whether the opinion is reasonable and logical.
>
> (v) Good faith: A *sine qua non* for treating an expert's opinion as valid and relevant is that it is tendered in good faith. However, the mere fact that one or more expert opinions are tendered in good faith is not per se sufficient for a conclusion that a defendant's conduct, endorsed by expert opinion tendered in good faith, necessarily accords with sound medical practice.
>
> (vi) Responsible/competent/respectable: In *Bolitho* Lord Brown-Wilkinson cited each of these three adjectives as relevant to the exercise of assessment of an expert opinion. The judge appeared to treat these as relevant to whether the opinion was "logical". It seems to be that

whilst they may be relevant to whether an opinion is "logical" they may not be determinative of that issue. A highly responsible and competent expert of the highest degree of respectability may, nonetheless, proffer a conclusion that a Court does not accept, ultimately as logical. Nonetheless these are material considerations. […]

(vii) Logic/reasonableness: By far and away the most and important consideration is the logic of the expert opinion/tendered. A Judge should not simply accept an expert opinion; it should be tested both against the other evidence tendered during the course of a trial, and, against its internal consistency. For example, a judge will consider whether the expert opinion accords with the inference properly to be drawn from the Clinical Notes or the CRG. A judge will ask whether the expert has addressed all the relevant considerations which applied at the time of the alleged negligent act or omission. If there are manufacturer's or clinical guidelines, a Court will consider whether the expert has addressed these and placed the defendant's conduct in their context. There are two other points which arise in this case which I would mention. First, a matter of some importance is whether the expert opinion reflects the evidence that has emerged in the course of trial. An expert's report will lack logic if, at the point in which it is tendered, it is out of date and not reflective of the evidence in the case as it has unfolded. Secondly, a further issue arising in the present cases emerges from the trenchant criticisms that Mr. Spencer QC, for the Claimant, made of the Defendant's two experts due to the incomplete and sometimes inaccurate nature of the summaries of the relevant facts (and in particular the Clinical Notes) that were contained within their reports. It seems to me that it is good practice for experts to ensure that when they are reciting critical matters, such as Clinical Notes, they do so with precision. These notes represent short documents (in the present case two sides only) but form the basis for an important part of the analytical task of the Court. If an expert is giving a precis then that should be expressly stated in the body of the opinion and ideally, the Notes should be annexed and accurately cross-referred to by the expert. If, however, the account from within the body of the expert opinion is intended to constitute the bedrock for the subsequent opinion then accuracy is a virtue. Having said this, the task of the Court is to see beyond stylistic blemishes and to concentrate upon the pith and substance of the expert opinion and to then evaluate its content against the evidence as a whole and thereby to assess its logic. If on analysis of the report as a whole the opinion conveyed is from a person of real experience, exhibiting competence and respectability, and it is consistent with the surrounding evidence, and of course internally logical, this is an opinion which a judge should attach considerable weight to.

31. In **Lashonda Poitier v The Medi Center and another** [2019] 1 BHS J No. 58, Charles Snr. J. explained the standard to establish medical negligence as follows [at 113], which I would endorse:

> "113. Having accepted that Dr. Basden owned a duty of care to Ms. Poitier, the next part of the negligence equation is the standard of care appropriate or required in the particular situation. At para. 8:50 in Clerk & Lindsell (17th Ed.), the learned authors put it this way:
>
> > 'A patient alleging negligence against a medical practitioner has…to prove (1) that his mishap results from error and (2) that the error is one that a reasonably skilled and careful practitioner would not have made. It is therefore crucial to establish how the mishap

> occurred and that he should have expert evidence that any error made was a negligent error.' "

32. Summarized, these cases establish the following principles. Firstly, that the test of clinical negligence is that the defendant must live up to the standard of the ordinary skilled man exercising and professing to have the special skills which the defendant professes to have. He is not negligent if he acted in accordance with a practice accepted as proper by a responsible body of medical men (or persons) skilled in that particular art (the *Bolam* test). However, medical evidence tending to show such a practice is not in and of itself determinative of the question of negligence. The court has to evaluate such evidence which has to have "a logical basis", and it must be shown that those advocating it had directed their minds to the relevant matters and reached a defensible conclusion (the *Bolitho* considerations). In other words, the court must conduct an evaluative exercise of the evidence to determine whether it can logically be relied on to support a claim that the defendant's standard met or fell short of the medically accepted practice.

Causation

33. Even if a breach of duty were found, the Court must then go on to consider causation, both in fact and law. Factual causation normally involves the application of the "but-for" test, that is that the injury would not have occurred but for the defendant's breach of duty, and legal causation involves a consideration of whether the damage was forseeable. The test relating to causation in clinical negligence claims was also considered in **Bolitho** (*supra*), where Lord Browne-Wilkinson said [pg. 239]:

> "Where, as in the present case, a breach of a duty of care is proved or admitted, the burden still lies on the plaintiff to prove that such breach caused the injury suffered: *Bonnington Castings Ltd. v Wardlaw* [1956] A.C. 613; *Wilsher v Essex Area Health Authority* [1988] AC 1074. In all cases, the primary question is one of fact: did the wrongful act cause the injury? But in cases where the breach of duty consists of an omission to do an act which ought to be done (e.g., the failure by a doctor to attend) that factual inquiry is by definition in the realm of hypothesis. The question is what would have happened if an event which by definition did not occur had occurred."

34. As to legal causation, no argument was addressed to the Court as to whether the damage to the plaintiff was foreseeable and not too remote. In **Khan v Meadows** [2022] AC 852, the UK Supreme Court affirmed the principle that a defendant is only liable in damages in respect of losses of a kind which fell within the scope of his or her duty of care (para. 36) and added that there was "…*no principled basis for excluding clinical negligence from the application of that principle*" (para. 62). However, the observations of Lord Hodge DPSC and Lord Sales JSC (with whom the other Judges agreed) giving examples of the principle are instructive [at 63]:

> "Where a surgeon negligently performs an operation and causes both physical injury and consequent economic loss to the patient, both types of loss will normally be within the scope of the defendant's duty of care. In other words, by undertaking the operation on the patient the surgeon takes responsibility for physical harm caused by any lack of skill and care in performing the

operation and for consequential economic loss. Similarly, when a general medical practitioner negligently prescribes unsuitable medication, thereby causing injury or failing to prevent the development of an otherwise preventable medical condition, both the injury or condition and the consequential economic loss will generally be within the scope of the defendant's duty. The negligent care of a mother in the final stages of pregnancy can sadly have the result of the birth of a baby with brain damage and the defendant is normally liable to pay compensation for both the injury and the consequential additional cost of caring for the disabled child."

D. The Evidence

35. The court heard from seven witnesses, both witnesses of fact and expert witnesses, who gave witness statements and live evidence at trial. The witnesses for the plaintiffs were: (i) the Plaintiff's parents and Litigation Friends TK Snr. and LK; (ii) Dr. John Busowski M.D., specialist in Obstetrics and Gynecology; and (iii) Dr. Ronald G. Davis, specialist in Neurology, Psychiatry, Pediatrics and Neuophysiology. For the defendant, the witnesses were: (i) the Defendant; (ii) Dr. Homer Newton Bloomfield, consultant Obstetrician and Gynecologist; and (iii) Dr. James S. Johnson, specialist in Obstetrics and Gynecology.

36. The key documentary evidence was set out in the clinical and medical notes of the delivery and discharge, the antenatal records of the mother, and the private medical records of TK. I also read the report of Dr. Stephen Demeritte, a local child neurologist and Dr. Melvin Grossman, a US based child neurologist who assessed and treated TK for several years following his birth. Sadly, Dr. Grossman died before the matter came to trial, and Dr. Davis was subsequently requested to serve as the expert neurologist for the plaintiff.

The delivery

The parents' evidence

37. There is no material difference in the evidence of TK Snr and LK as to what is alleged to have happened during the delivery process, and the witness statement of TK Snr may stand as the evidence of the parents. His witness statement was signed 6 July 2018, and I will set it out in some detail, as it provides a panoramic view of the events associated with TK's birth and the diagnosis and treatment in the aftermath:

> "6. On the 4th August 2012 around 11 p.m. my wife began to have labour pains and her water broke. I then took her to the Princess Margaret Hospital.
> 7. On 5th August 2012 while at the hospital my wife began to dilate. She was taken to the delivery room to deliver the Plaintiff. I was allowed to be present with her and the Plaintiff. Upon entering the room, the nurse immediately told me to listen to the doctor.
> 8. The procedure for my wife to give birth began shortly thereafter.
> 9. The Defendant thereafter started to tell my wife to push; she started pushing.
> 10. About 20 to 25 minutes later the Defendant appeared to get nervous as the Plaintiff was not coming out, the Defendant told my wife to push harder than before; she did.

11. The Plaintiff was still not coming out. A few minutes later I saw the nurse bring him the forceps and suction tools and actually threw it down to him and said "here". The Defendant stated "no I cannot do that" but picked up the forceps and used them anyways. The Defendant had a funny face while he was doing it. This gave me the impression that he never used the forceps and the suction trials before and that he did not know fully what he was doing. We were not asked if we wanted to use the forceps or suction and we were not advised of the risks involved.
12. After the nurse brought the items, the Defendant started using the forceps on my wife to get the baby out. Minutes went by and still there was no birth. The Defendant then started using the suction as well but still there was no birth. The Defendant appeared flustered as if he didn't know what to do. The room felt warm, the Defendant was sweating a lot at this time after taking so long to deliver the Plaintiff. The Defendant then tried the suction tool several times and it seem to keep slipping off the Plaintiff's head and it looked like he broke it 'cause he used it a couple of times and gave it back to the nurse.
13. After a few minutes I suggested that he should try a "C" section delivery. The Defendant stated that it was too late for a "C" section. My wife appeared to be in a lot of pain and she told me that she had a severe headache after the failed attempt of the epidural and that she was very tired of pushing as well. I then said to the Defendant, "*Doc she is tired can we do a "C" section*". He replied that it was too late and that it will cost more.
14. The Defendant then used some type of medical scissors on my wife's vagina and cut the lips of her vagina. The Defendant told us he was going to snip or cut my wife to help get the baby out. However, this did not work as the Defendant was still unable to deliver the Plaintiff.
15. The Defendant appeared to be overwhelmed from delivering the Plaintiff as he stopped and directed the nurse to call another doctor.
16. Dr. Bloomfield came about 15 minutes after he was called. He appeared more confident and knowledgeable than the Defendant. Dr. Bloomfield then utilized the forceps and suction and after less than 5 minutes the Plaintiff was delivered.
17. This process from start to finish lasted about 45 minutes (estimating the time).
18. The plaintiff was not conscious and appeared to have bluish skin. Our pediatrician Dr. Lochan took the plaintiff and resuscitated him and then his skin turn[ed] pinkish. The plaintiff was then taken to intensive care and placed on a ventilator. The plaintiff never cried or made a sound. In Intensive Care, I went to see the Plaintiff, who was lying in an open bed. His body movements were not fluid. I could see something was wrong and that he was having a hard time breathing. My wife rubbed the Plaintiff's head but he did not respond. As a result, a neurologist Dr. Edwin Demeritte was called in to examine the Plaintiff.
19. The Defendant came and stated that the Plaintiff had some swelling in his head and that the umbilical cord was wrapped around his neck. He never apologized for the injury to the Plaintiff and also stated jokingly and very insensitively that this was his most difficult delivery and we were trying to 'mess up his record'.
20. Dr. Steven Lochan came that evening and stated that there were problems in respect to the Plaintiff. He stated that there was some swelling in the brain and that the brain did not receive sufficient blood. He added that because of the seizures and the swelling they had to induce a coma to reduce the swelling in the Plaintiff.
21. Dr. Demeritte returned the following day after he did his testing and added that because the Plaintiff did not receive sufficient oxygen, he had suffered a brain injury as a result.

22. A few days later my wife was discharged from the hospital but the Plaintiff was kept for further treatment.
23. It appeared to me as if all the doctors were not being forthright with myself (*sic*) and my wife and were downplaying the seriousness of the Plaintiff's injuries.
24. A month later we were allowed to take the plaintiff home. We continually periodically checked Dr. Demeritte and Dr. Lochan. Early on there were no signs of seizures.
25. After 4 months, around early December 2012, the seizures started again. Dr. Demeritte then prescribed us medication that suppressed the seizures. These medications only worked for a short period, and the seizures returned.
26. The seizures became more frequent and violent. The plaintiff was biting his tongue, having muscle spasms and rolling his eyes during these seizures. The plaintiff appeared to be suffering and crying in pain after the daily attacks.
27. Dr. Demeritte kept adjusting the medication but it didn't help.
28. Further, in May 2013 we were then referred to the United States at the Miami Children's Hospital by Dr. Lochan. There the Plaintiff was seen by Dr. Melvin Grossman. Dr. Grossman informed us that it was his opinion that the mental and physical state of the Plaintiff was not as a result of a natural cause but had occurred because of the negligence of the Defendant in managing the birth of the child including his misuse of the forceps and suction. He further stated that the Plaintiff was injured during delivery. He appeared angry and disgusted by what occurred to the plaintiff.
29. During January 2014 we changed Doctors. The baby was then seen by Dr. Ronald Davis at Pediatric Neurology Center of Central Florida. There, we were informed that the damage to our child's brain was severe and that for the rest of his life heh would need constant supervision and assistance. Dr. Ronald Davis also stated that in his opinion the baby was injured during delivery, which has led to the present condition of the baby. He diagnosed the baby with Hypoxic Ischemic Encephalopathy and West Syndrome Myoclonic Encephalopathy of Infancy.
30. [*Misnumbered as "31"*] Presently, the child's condition has worsened and he has been diagnosed with Cerebral Palsy. We are now seeing Dr. Ronald Davis in Orlando Florida in this regard every 6 months."

38. I bear in mind that this was a traumatic experience for the parents, and it is a known fact that trauma can sometimes lead to memory distortions and difficulty in narrating events chronologically. In this regard, it is notable that the father recounts that the defendant first attempted the use of the forceps, then the ventouse, which is inconsistent with the clinical notes and the evidence of the experts that it is more logical that the ventouse would have been the "preferred method" and used first. But apart from minor inconsistences such as these, and allowing for the perspective of parents who suffered a catastrophe associated with the birth of a child, my assessment of the Kellys was that they were credible and truthful witnesses. In fact, their tempered and mature approach to giving evidence and maintaining civility and grace while recounting painful events was greatly to their credit as witnesses.

The Defendant

39. The defendant's account of the delivery process was as follows:

"9. I went to the hospital to attend to the delivery of the baby. Once I arrived in the delivery room which was Private Surgical room #7, I noted that LK was already prepared for delivery and that the baby's head had crowned but not trapped in the vagina. The mother was fitted with the standard antenatal monitoring device at this time it was nothing to suggest the baby was in distress.
10. I attempted delivery at 11:00 a.m. when LK's cervix dilation was first measured at 10 cm and she had reached optimal conditions for delivery.
11. After attempting a vaginal delivery LK started to exhibit signs of maternal fatigue, which militated against an unassisted birth. I determined that a normal delivery would be possible based on the size of the baby, previous pelvic examinations and the fact that Lajerah's vaginal opening was adequate to allow a vaginal delivery.
12. I first attempted an assisted birth delivery using an air vacuum suction device. This was unsuccessful as the suction device was not working. I was aware that the hospital had a second vacuum suction device, but this was locked in another room and we could not gain access to it.
13. I then attempted to utilize the available outlet forceps (outlet forceps were designed for the general practice obstetrician with safety features built in, including but not limited to the following: a fixed lock that means if it does not lock it does not work; compact design with short blades of 3-4 inches; fetal and pelvic curves designed into the forceps which allows the forceps to fit around the baby's head the mother's pelvis comfortably;); at the hospital to assist with the birth but I could not get the outlet forceps to look in place. It was at this point that I asked the nurse to call Dr. Bloomfield to render assistance, a common and safe practice.
14. During this time, I constantly monitored the condition of both the mother and the baby. The baby's heartbeat rate was shown to be between 137 and 144 beats per minute during the period of childbirth.
15. It is expected that in the event of oxygen deprivation or other indicator of foetal distress during child birth that the foetal heart rate would jump outside of the normal range. The baby's readings remained constantly within the normal limits of 120 to 160 bpm and there was no sign of foetal distress."

40. Not surprisingly, Dr. Carey was rigorously cross-examined during his live evidence on several issues by counsel for the plaintiff, in particular on the issues relating to the use of the instruments. He was asked whether the accepted practice in the field of obstetrics and gynecology was that the vacuum extractor and forceps should not be used sequentially during an assisted delivery, and whether a Cesarean section ("CS") should have been conducted following the failure of any one of the instruments. Dr. Carey did not accept that this was the practice, but acknowledged that use of multiple instruments was "…*frowned upon, but it's not against the rule if you see a need*". He also accepted that studies showed an increased risk of injury "*to mother and baby*" from the sequential use of a vacuum extractor and forceps.

41. He was also challenged as to why his assertion (in his WS) that the ventouse was not operable and that the forceps did not lock was not corroborated in the clinical notes by the nurse or those of the attending pediatrician. His answer was that he did not put it in his notes ("*that's just the doctor's way*"), but that he did notify the senior obstetrician when he arrived that the ventouse was not functional. It was also suggested to him that there was no malfunctioning of the vacuum device, but that he was having what is called "pop offs". He denied this:

Q: I'm suggesting to you that there was no malfunctioning in the sense that there was no vacuum. The problem was that you were having pop offs.

A: That's incorrect. …So, I then basically took it out and tested it on my hand to see if I can get suction. I couldn't get suction with that particular pump. …I then asked the nurse for the other pump because I knew the hospital had a second pump. I said 'well let's get the other pump', but she indicated that it was locked away in theatre.

42. He was also asked about the "*Wrigley* outlet forcep". First, he was questioned as to whether the Wrigley forceps were recommended for use by doctors in the Bahamas. He indicated that they were the *only* forceps used in PMH for both CS delivery and assisted delivery. Questions were also put to him about why the forceps did not lock:

Q: Help us to understand why you say the Wrigley forceps didn't lock.

A: Well because in my situation, what I thought was the baby's head was in a asynclitic position, meaning it was off-center and we are talking about millimeters here. So you can examine and see if it's possible and you can apply the process, but it was off by central line a few millimeters and it wouldn't lock. So basically if it doesn't lock, you think about it. You re-apply it. And if it still doesn't lock, then that's when I called Dr. Bloomfield. The asynclitism at that point didn't allow it to actually lock.

43. In re-examination he explained that the delivery process was about 30 minutes before Dr. Bloomfield arrived, and that his "action" with the vacuum and forceps was about 5 minutes long. After the forceps failed to lock, he discontinued the use of the forceps ("*I put them on the trolley*") and asked the nurse to call Dr. Bloomfield because he suspected the baby "*had a situation of aysnclitism*". As he explained:

> "An asynclitism …is a situation that may correct in 10 minutes or it may correct in several hours but you don't know. So, my reason for calling Dr. Bloomfield was two-fold. One, by the time as he got there to see if the asynclitism had corrected. If the asynclitism had not corrected on his arrival, then we would have to proceed to C-section."

44. He was also cross-examined about the fact that, notwithstanding the representations in his evidence and notes that the baby's FHR remained in the normal range right up until delivery, the CTG strips included in the bundle stopped at 10:50 a.m. His answer was as follows [*strike-through and italicized text represent corrections made to the transcript based on the actual Zoom recording*]:

> "The strips ~~run out~~, *were worn out* but it doesn't change the fact that there wasn't no (*sic*) fetal heart rate because it was~~n't~~ recorded. And it was around 133 at the time of delivery. …Afterwards, when I went trying to find the strips to see what actually happened. The person who actually made the call-*in* was the pediatrician that the strips was normal ~~and the (inaudible).~~ *despite the baby*. He was the one who made the first ~~(inaudible).~~ *comment*. So we wanted to go back and look at the strips. And see…*but* the problem with Princess Margaret, we don't find them."

45. He was also asked whether if an operative delivery, using vacuum or forceps, progressed beyond 15-20 minutes it should be aborted in favour of a CS. He disagreed that the process should not go longer than 20 minutes, but accepted that 30 minutes was a cut-off point, which he said was the standard applied by the American College of Obstetricians and Gynecologists.

46. There was another important aspect of this case on which Dr. Carey was cross-examined, which was that there was a brain CT Scan performed on TK 10 days after his birth, which confirmed that he had a brain bleed. As illustrated from the following exchange, Dr. Carey accepted under cross-examination that the brain scan did illustrate a possible brain bleed and that it could possibly have been caused by pop-offs, even if there were no external manifestations on the baby.

Q: Okay, I have seen in the literature your reference to an injury what is called an inter-cranial hemorrhage.
A: It's a damage underneath the baby's skull.
Q: Is it over simplistic to say that there is bleeding in the brain under the skull?
A: No. […]
Q: Now, inter-cranial hemorrhage can also result from pop offs; isn't; that so?
A: Yes.
Q: And you can have inter-cranial hemorrhage from pop offs without any external manifestation; isn't that so?
A: It's possible, yes. […]
Q: Now in the case of TK, are you aware of any bleeding in the brain after his birth?
A: No.
Q: You didn't see the CT brain scan that was done 10 days after his birth?
A: No. Ten days I wasn't there. After the baby was born, I went to the baby unit and spoke to Dr. Lochan at that time.
Q: So, Dr. Carey you have never seen this CT?
A: Yes, I have seen this.
Q: When you go down to Impressions, of course its Hypoxic Ischemic Encephalopathy.
A: Yes.
Q: But it also talks about hyper dense area in the right high frontal region possibly, I guess the question mark possibly is a parenchymal bleed. You see that.
A: Yes.
Q: Isn't that bleeding in the brain they are detecting.
A: Yes. It is something yes. I am trying to look (inaudible).
Q: Under the Impressions as well as above it, there is a reference to a focal hyper dense area noted in right frontal 3.3 x 3.7 mm. I guess that's the size of the area. And it speaks of a parenchymal bleed.
A: It says query, parenchymal bleed.
Q: It's not confirmed, Right. […]
A: It is not conclusive but it is possible.

47. My assessment of Dr. Carey's evidence was that he was trying to be forthright with the Court under what can only have been difficult circumstances for him. However, there are

omissions and inconsistencies in his clinical notes and WS that were never satisfactorily explained, and during cross-examination he was evasive and defensive in some of his answers.

Dr. Bloomfield

48. Dr. Bloomfield is the senior obstetrician and gynecologist who actually delivered TK. Dr. Bloomfield is a former Senior Medical Officer with the Public Hospitals Authority, and was a consultant to the Hospital with nearly 40 years of experience in the field at the time of the event. He was in private practice at the time, but because of his experience and history at the hospital, he indicated that it was not unusual to receive calls from the hospital to assist with difficult childbirths and other related health issues. The material paragraphs of his witness statement are as follows:

> "10. I was advised that the vacuum extractor which is normally used to perform assisted vaginal deliveries at the hospital was not functioning properly and that Defendant was unsuccessful in delivering the baby by this method. I also understood that he had attempted and had then abandoned the use of the forceps to carry out the delivery.
> 11. I noted that the standard electronic fetal monitory was being performed. I also observed that there were no abnormal readings or indicators from the monitoring device to portend that the delivery or the baby up to that time was at risk or in any jeopardy. From my observations of the patient and readings, there were no signs that the baby was in distress. If there were any such indicators, I would have opted for a c-section delivery; and would have expected the Defendant to do so.
> 12. It was my understanding as confirmed by the medical notes that the childbirth took no more than 45 minutes from proper dilation to actual birth. The current medical standard is that a period of up to 60 minutes is considered within the acceptable range.
> 13. As the length of the process from dilation to actual birth in the plaintiff's case was within the medically safe time range, I do not consider it to have been a risk factors to cause harm or health issues to the plaintiff.
> 14. I utilized the forceps and proceeded to deliver the baby. There was no delay during the delivery and the plaintiff was delivered within 5 minutes. The baby was born 8 pounds and 6 ounces. The defendant then delivered the placenta and did the necessary repairs to the vagina.
> 15. I observed that the baby was born with the umbilical cord around its neck. This is not an uncommon occurrence and usually have little impact upon the health of the baby. The baby was born flat and had to be resuscitated by Dr. Lochan, which is the standard procedure in such cases. Otherwise, the delivery and birth of the Plaintiff seemed to be unremarkable; and the plaintiff appeared to be in normal condition.
> 16. During my involvement in the delivery of the plaintiff, I did not detect any signs of cuts or contusions or bruising to the baby or the mother's vaginal areas, [which]would have been evident if the forceps were used forcibly or improperly by the Defendant on the plaintiff or the mother."

49. During his live evidence, Dr. Bloomfield accepted that the overall risk of injury as it relates to assisted delivery using either a vacuum or forceps is generally quite low. He was also asked to clarify whether or not he used the vacuum (as was indicated in one set of the clinical notes by the defendant) and to explain how it was that he was able to so quickly and easily deliver TK when the defendant could not.

Q: So, at paragraph 14 [of your WS] you say: 'I utilized the forceps and proceeded to deliver the baby. There was no delay during the delivery and the plaintiff was delivered within 5 minutes.' So, I'll stop there. So I am presuming that you were able to successfully use the forceps and you didn't' have to use the vacuum; correct?

A: No, I didn't use the vacuum at all. […] If you have a non-functioning process of a vacuum that is not working, I am not thinking that you put it on 16, 20 or something. In other words, you don't go from a vacuum because the vacuum doesn't work and then go to a forceps. If the vacuum doesn't work, the forceps are unlikely to work as well. That's the basic principle…And I have been doing that basic principle for the time I've been…So, I really don't know of anybody who would move from a vacuum that didn't work in the process of delivering the baby to now attempting to do a forceps. It's not going to work. […]

Q: Now, again…what you described [the process of delivering TK] seems to be smooth and pain free process. It's correct to say that you didn't have any difficulties getting the baby out?

A; Okay, no I didn't. But I say this: I was a bit surprised at the ease of that…but when I got there, the baby's head was on the perineum. In other words, if I wasn't called into the situation as it were some kind of urgency or emergency, I would have allowed this human to push and this baby would probably have come out. Now I can't speak for what Dr. Carey's situation was, but I suspect very strongly that the baby probably came down in a more favourable position by the time I got there.

Q: Now…you used an anatomical term that I don't remember, what was it?

A: On the perineum. …In other words, you can see the head with the vagina. You don't have to part the vagina.

Q: …That was the thing I was about to ask, whether visually, if the baby head is moved to a more, I guess, opportune position, is that something that would have been seen if someone were looking?

A: I imagine they would if they know what they are looking for."

50. Dr. Bloomfield is clearly a hugely experienced and knowledgeable obstetrician, and his intervention in all probability prevented what might have been an unmitigated catastrophe. In his live evidence, he answered frankly, and I consider that he was doing his best to assist the Court, even if some of his answers tended to put forward the best possible interpretation of the evidence. However, the reliability of his evidence is diminished by the conclusion in his WS that the "*delivery and birth of the plaintiff seemed to be unremarkable and the plaintiff appeared to be in a normal condition*". This is clearly ill-at-ease with all the contemporaneous accounts of the delivery, including that of the defendant himself, and the observations of the pediatrician immediately after the delivery.

Expert Evidence

Dr. John Busowski

51. Dr. John Busowski is a specialist in the field of Obstetrics and Gynecology, who practices in the United States of America, and operates out of the Winnie Palmer Hospital in Orlando

Florida. He has an impressive list of academic and clinical appointments, is widely published and has made numerous presentations in his area of specialty. He is a Diplomate of the American Board of Obstetrics and Gynecologists, and a member of the American College of Obstetricians and Gynecologists. He is licensed to practice in the States of Ohio, South Carolina, Florida and Alabama.

52. He was asked to provide a medical opinion relative to the circumstances surrounding the birth of TK. For this purpose, he was provided with, *inter alia*, the confidential medical reports and Neonatal Intensive Care Unit (NICU) notes from the PMH, copy of the medical records for LK (including delivery notes) from the PMH, perinatal clinical records, discharge summary, and fetal heart rate strips. He was also provided with the copies of medical reports from other doctors who examined TK either connected to his delivery or during his care following birth, including copies of medical reports by Dr. Ronald Davis and Dr. Melvin Grossman (now deceased).

53. In his medical report, Dr. Busowski first described the process of "operative delivery" using vacuum extractor and forceps, before giving his opinion based on what transpired in the instant case. I set out some of the relevant parts of his opinion:

> "An operative delivery was attempted suing vacuum extractor and forceps. The term operative vaginal delivery or assisted vaginal delivery is vaginal delivery of a baby performed with the help of forceps or a vacuum device. Forceps look like two large spoons. They are inserted into the vagina and placed around the baby's head. The forceps are used to apply gentle traction to help guide the baby's head out of the birth canal while you keep pushing. A vacuum device is suction cup with a handle attached. The suction cup is placed in the vagina and applied to the top of the baby's head. Gentle, well-controlled traction is used to help guide the baby out of the birth canal while you keep pushing.
>
> Some of the reasons why an assisted vaginal delivery may be done include the following:
>
> - There are concerns about the baby's heart rate pattern during labour.
> - You have pushed for a long time, but the baby's head has stopped moving down the birth canal.
> - You are very tired from a long labour.
> - A medical condition (such as heart disease) limits your ability to push safely and effectively.
>
> Before choosing the option of an assisted vaginal delivery, the delivering healthcare provider should assess a number of factors to ensure that the highest levels of safety are met. These factors include your baby's estimated weight, where your baby is in the birth canal, and whether the size of your pelvis appears adequate for a vaginal delivery. The cervix must be fully dilated, and the baby's head should be engaged (this means that the baby's head has dropped down into your pelvis).

Although the overall rate of injury to the baby as a result of assisted vaginal delivery is low, there is still a risk of certain complications for the baby. These include injury to the baby's scalp, head and eyes; bleeding inside the skull; and problems with the nerves located in the arm and face.

The baby was delivered vaginally with the use of vacuum extraction and at least two separate attempts with the use of forceps. The APGAR scores at 1 and 5 minutes were 2 and 4 respectively. The neonate required resuscitative efforts at the time of delivery. The neonate suffered a grade III hypoxic ischemic encephalopathy, and a right-sided grade III intraventricular hemorrhage.

Review of the limited fetal heart rate tracing during labour revealed a category I status for the fetus (reassuring).

I believe with a high degree of medical certainty that the perinatal asphyxia and resulting injuries to the newborn were the result of sequential attempts at operative vaginal delivery using different devices.

Number of attempts & duration of operative vaginal delivery:

Operative delivery should be abandoned it if is difficult to apply the instrument, descent does not easily proceed with traction, or the fetus has not been delivered within a reasonable time. Some experts suggest abandoning the procedure if delivery has not occurred within a reasonable time. Some experts suggest abandoning the procedure if delivery has not occurred within 15 to 20 minutes or after three pulls. A cohort study found that 82 percent of completed operative deliveries (vacuum or forceps) occurred with one to three pulls and that pulling more than three times was associated with infant trauma in 45 percent of such deliveries.

A secondary analysis of multicenter observational cohort study found that increasing duration of operative vaginal delivery time was strongly associated with adverse neonatal outcomes that the number of forceps pulls or vacuum pop-offs.

Durations greater than 12 minutes had the strongest association with both adverse neo-natal outcomes and failed operative deliveries.

Second attempt with a different instrument—Sequential attempts with different instruments should not be performed routinely. The American College of Obstetricians and Gynecologists recommends against routinely performing sequential attempts at operative vaginal delivery using different instruments due to the greater potential for maternal and/or fetal injury.

Population-based data have reported increased maternal and neonatal morbidity from sequential application of vacuum and forceps.

For the neonate, sequential use of these instruments has been associated with increased rates of subdural hematomas and intracranial hemorrhage. In one large study, the incidence of subdural or cerebral hemorrhage in infants delivered by vacuum and forceps, vacuum alone, or forceps alone was approximately 21, 10, and 8 per 10,000 births.

In this tragic case the use of multiple instruments used for her delivery resulted in the trauma to the baby. These injuries were the direct cause of the child's current and lifelong condition.

[…]

Once the attempt using either the forceps or vacuum had failed to result in vaginal delivery a cesarean section should have been performed."

54. After this discussion, Dr. Busowski concluded as follows:

"Whether it was lack of skill, inexperience or inappropriate use of vacuum extractor and forceps or multiple devices use, the operative delivery caused or contributed to the neonate's outcome.

I believe that if a cesarean delivery would have been performed after the first failed attempt at assisted delivery then this adverse outcome could have been avoided.

I believe with a high degree of medical certainty that the perinatal asphyxia and resulting injuries to the newborn were the result of sequential attempts at operative vaginal delivery using different devices."

55. In cross-examination, Dr. Busowski was referred to the statement from Dr. Johnson, the defendant's expert obstetrician and gynecologist, that it took no more than 45 minutes from proper dilation to actual birth, and that this was well within the acceptable medical range, which is 60 minutes. Dr. Busowski agreed with this and said that even 120 minutes or two hours is acceptable. He agreed with Dr. Johnson's statement that "…*as the length of the process from dilation to actual birth, in the plaintiff's case, was within the medically safe range, I do not consider it to have been a risk factor, to cause harm or health issues to the plaintiff*…".

56. He was further cross-examined at length on a number of issues raised by counsel for the defendant, mainly relating to apparent inconsistencies in the statements and evidence of the defendant's expert. Firstly, he was asked whether his understanding of the position and his opinion was based on the presumption that the attempted use of the vacuum or forceps failed (e.g., perhaps as a result of improper use), or whether it was the case that the instruments themselves malfunctioned:

Q: Were you told by anyone that the vacuum was inoperable?
A: I was told it didn't work. The attempt at using a vacuum, didn't work. I was not told the vacuum itself was broken. That was never reported until after I got the information from the defendant.
Q: Would your opinion be affected in anyway by the information that the vacuum did not at all [work]?
A: It may change my opinion.
Q: […] You were not told at that point, when you were making your opinion, that, in fact the vacuum machine was inoperable?

A: What I was told, and what I read, he [the defendant] tried to use one vacuum; it didn't work. So he tried to get a second vacuum, which was locked. He had tried forceps, which he couldn't lock.

Q: [Reading from clinical notes of delivery]: "Vacuum suction tried, but malfunctioning; therefore, forceps attempted. Progressing slowly, but difficult. 11:25, request senior backup. Dr. Bloomfield arrived about 11:35 to 11:40. … Fetal heart rate 130's; no evidence of fetal distress; 11:40 a.m. to 11:55 a.m., Dr. Bloomfield attempted extraction by vacuum, not functioning properly, change for forceps attempted." In your opinion, at the end of the witness statement, on the last page, you say that the use of multiple instruments used for delivery, resulted in the trauma to the baby. Earlier you had indicated that the inoperability of the vacuum might have affected your decision.

A: Possibly. The other case is the inappropriate use of forceps.

Q: Isn't it true that he was delivered through the use of forcep?

A: Yes, it is true, forceps got him out.

57. In cross-examination, he was asked whether, considering that the forceps were said not to be able to lock, it would have been able to grip the baby's head in any way.

Q: Now, if the forceps failed to lock for whatever reason, would it have been able to grip the baby's head in any way?

A: Yes.

Q: How is that.

A: [~~Because you have to voyager (*sic*) on the baby's head, a manipulation to lock it in place.~~][*Rough Transcript*]

…You have the blades on the baby's head and it depends on the manipulations you are trying to do to lock the blades. [*Actual transcription from the Zoom recording.*]

You can compress a baby's head trying to put forceps on. If not getting them on, you can damage the baby's head, and damage to the mother's vagina and perineum can occur trying to get forceps on. You don't (need) to get them in place to cause injury to the baby or brain trauma.

58. In re-examination, he was asked (assuming *ad arguendo* that the vacuum was not operative and not able to form any suction or pull) what would be the effect of its use:

A: You would end up getting more of a hematoma on the baby's head, called a cephalhematoma, which is bleeding under the skull or between the skull and the head bone, or the skin, sorry. Or you can have even worse things happening, a cephalhematoma a bleeding within the brain, which happened to this baby.

Q: That was my next question; whether in your mind there was any evidence to your mind, of bleeding in the brain of this child.

A: There was.

Q: And that bleed that you described, does that suggest anything as to what happened?

A: Well, head trauma, brain trauma to the baby.

59. Dr. Busowski had earlier been asked for his interpretation of the CT scan which formed a part of the documentary evidence, and his evidence was:

> "This baby had a germinal matrix bleed, which is a bleed in the brain due to traumatic birth. And the neonatologist, you have the perinatologists, the pediatric people involved saying this was perinatal asphyxia. This baby was super depressed when it was born, and it is a normal looking baby an hour before it was born. So something happened in the interim."

60. He was also asked in re-examination whether he found anything "*strange or objectionable*" about the statement by Dr. Johnson that:

> "The baby was born flat, and had to be resuscitated by Dr. Lochan, which is the standard procedure in such cases. Otherwise, the delivery and birth of the plaintiff seemed to be unremarkable, and the plaintiff appeared to be in normal condition."

Dr. Busowski's response was a follows:

> "I think it is contradictory. First, he said that the baby was born flat, and had to be resuscitated. Then he said the baby appeared to be in normal condition. Those are dichotomous statements. They make no sense to me, they are opposite statements. You can't have a normal condition if the baby has to be resuscitated; that is not normal. They are dichotomous statements."

61. Dr. Busowski was also asked to explain the representation by Dr. Carey that he constantly monitored the condition of both the mother and the baby, and that the baby's heart rate was shown to be between 137 and 144 bpm "*during the period of childbirth*". Dr. Busowski had said that this was "reassuring". The exchange was as follows between counsel for the defendant and Dr. Busowski:

A: It's definitely re-assuring, but looking at the fetal monitoring strips, if there is no monitoring going on, I don't know what was going on with the baby. 10:50 is the last monitor I have. Was the baby being monitored or not within the next 40 minutes.

Q: He said he constantly did so. Bear in mind, the hospital supplies the equipment. He would not have been responsible for the functionality of a device, as such.

A: I think he is. If the baby needs to be monitored during this process, then it is his responsibility to do such.

Q: He said he was monitoring him?

A: I have no documentation of that. The last document was like 10:40 in the morning, with this little note on the side. The fetal monitoring strips that I have, which you can set your strips, there is no monitoring after 10:40. So, you don't know what the status of that baby is during the labour process."

62. Finally, in re-examination, he was asked his opinion on the cause of the injuries to TK, in light of the evidence of Dr. Bloomfield that he did not use the vacuum.

Q: Finally, Dr. Busowski, and this is not from today; this is from Tuesday. You were shown Dr. Carey's notes that suggested that Dr. Bloomfield, once he arrived, used a vacuum as well as forceps. As Mr. Gomez pointed out to you today, that was not corroborated. Dr. Bloomfield made it clear that he never used the vacuum. That is the state of the evidence. Now, prior to Dr. Bloomfield making that clear, on Tuesday, the question that was put to you by Mr. Gomez was, that if both Dr. Carey and Dr. Bloomfield had used a vacuum and forceps, the suggestion to you was; that you would not know who was responsible, and you agreed, in the context of the scenario. Now, we have this evidence, accepted, that Dr. Bloomfield did not use a vacuum, and that he used the forceps, and relatively got the baby out; would that answer change?

A: I would go with Dr. Carey causing the issue with the baby.

63. Dr. Busowski is obviously a very experienced and knowledgeable expert in the area of obstetrics and gynecology, and very much still in active practice. In fact, his live evidence had to be interrupted on more than one occasion to accommodate pre-fixed client appointments. Overall, I found him to be a very impressive witness, doing his best to assist the court based on his knowledge and experience and to interpret the documentary evidence on an objective and professional basis. He did not hesitate to concede expert opinion favourable to the defendant when it accorded with professional standards (e.g., such as the delivery interval), and was unapologetic and forthright in recording his disagreement with expert evidence which he did not consider reasonable, or factual accounts which were not borne out on the evidence.

Dr. Ronald Davis

64. Dr. Ronald Davis is a specialist in Neurology, Psychiatry and Neuophysiology, trained at East Carolina University and Harvard University. He serves as a Fellow of Child Neurology at Children's Hospital in Boston, Massachusetts. He was engaged as an expert witness after the death of Dr. Melvin Grossman, who had previously seen and treated TK, and Dr. Davis was provided with copies of the medical reports of Dr. Grossman along with copies of pre-natal notes for LK and the medical notes for TK. I reproduce key passages of his statement below:

> "[T]he actual delivery records are somewhat sparse, but it is noted from nursing as well as from the pediatric attending note, who did the resuscitation on TK that at the time of delivery, significant complications arose. In particular, it appears as if he was stuck in the birth canal. It is noted that vacuum and forceps initially failed. Another physician was then called in and finally delivery occurred by forceps. It is actually noted in the records on the discharge summary that the initial vacuum and forceps attempt failed. […]
>
> It is clearly noted in the delivery records that perinatal depression, encephalopathy secondary to perinatal asphyxia occurred. As I mentioned, he had to be resuscitated and ventilated and within one hour seizures developed. […]
>
> TK did spend several weeks in the NICU. It is interesting to note that in the remainder of the records that were provided, there was no sepsis appreciated. It is also noted that he did not have

any other cause for the bad delivery structurally. For example, there was no structural abnormality of the brain implying a genetic abnormality, nor was any genetic abnormality noted otherwise. In addition, the remainder of blood work demonstrated no evidence of a metabolic disorder. […]

…TK has gone on to develop significant global developmental delay as a consequence of his cortical injury. He has developed severe intractable epilepsy, then progressed to West syndrome and infantile spasms.

Given the review of the records that were provided as well as the clinical notations and his current clinical state, it is within a reasonable degree of medical probability that the current clinical state of TK is a direct consequence of hypoxic ischemic injury from a perinatal delivery event. This is clearly documented in the records that were provided for review and reinforced by the subsequent testing that was done such as the imaging and the EEG.

There is no other etiology that exists for his current significant impaired neurodevelopmental state and his intractable epilepsy."

65. Dr. Davis was extensively cross-examined by counsel for the defendant on whether the injuries/conditions which afflicted could be explained by other conditions.

Q: There is a medical expert by the name of Dr. Johnson who was engaged by the defendant. And he has taken issue with the last sentence that I read back to you [The last sentence of Dr. Bukowski's report that perinatal asphyxia and resulting injuries to the newborn were the result of sequential attempts at operative vaginal delivery using different devices]. And he has said that that there are a number of causes for Lennox Gastaut Sydrome which include Brain Malformation, for example, Cortical Dysplasia. Two, Perinatal Asphyxia, which occurs 20% of the time. Three, CNS Infections. For example, Zika Virus, CMV, Toxoplamosis. Then he says four, Inherited degenerative and metabolic conditions. Particular genes have been identified associated with this syndrome, ALG 13, CHD2, DNMI. Then six, Tunberous Sclerous. And then he says and this is the kicker, that there is a category of unknown causes for the syndrome which could be as high as 30% of the time. Now, if that is the case, well, do you accept that there are numerous causes for Lennox Gastaut Syndrome? And then there is a category of completely unknown and they may be as high as 30% of the causal matters related to Lennox Gastaut Syndrome.

A: So I accepted that there are a number of other causes associated for Lennox Gastaut Syndrome including some of the things you mentioned as well as some ones that you didn't. What is clear though is that say, for example Tuberous Schelerosis, which was an example that you gave, [there are] certain patterns of metabolic disorders, infections for example, including the Zika. All of those are certainly possible to do that but none of those are in evidence here in this particular case. What is in evidence is the 20% that you mentioned that can also be associated and I accept though. And that would be the, a not sick injury, and that's exactly where he falls. He is one of the 20%.

Q: Well, we put it to you that it may well be that he could fall into the 30% category which is completely unknown.

A: Well, that will not go along with his neuro imaging findings.

Q: And how do you rule out Cortical Dysplasis?

A: You rule it out with neuro imaging as well as now a number of genetic profiles that are available so it deals with Cortical Dysplasis. But the vast majority are done from neuro imaging.
Q: But didn't you say in your opinion that in terms of the brain injury that it was inconclusive?
A: No, sir, I'm pretty sure, I'm quite clear Hypoxic Ischemic Injury.

66. Dr. Davis also proved to be an impressive and credible witness, whose conclusions were carefully rationalized. He made the appropriate concessions when contrary evidence or opinion was put to him, but was unswerving in his assessment of the causes of the injuries to TK, and his reasons for coming to his conclusions.

Dr. James Johnson

67. The primary expert for the Defendant was Dr. James Johnson, a specialist in Obstetrics and Gynaecology, trained at the University of the West Indies ("UWI"). He is a Member of the Royal College of Obstetricians and Gynaecologists, UK, and a member of the American College of Obstetricians and Gynaecologists. Dr. Johnson has also served as a co-ordinator of post graduate obstetrics and gynecology at the PMH, in association with the University of the West Indies. Dr. Johnson was also provided with copies of the medical notes provided by the plaintiff and those in the possession of the defendant. The gist of his statement was that the plaintiff's Lennox Gastaut Syndrome was more likely to have been caused by "Cortical Dysplasia" than by "Perinatal Asphyxia", and that therefore there was no causal connection between the diagnosis of cortical dysplasia in the Plaintiff and the standard of care provided by the Defendant. As put in the statement:

> "I am satisfied that the adverse event sustained by the Plaintiff at birth was not due to medical care falling below the standards expected of clinicians in the medical community.
> I did not discern—and in my opinion, I do not believe it is reasonable to discern—from the medical recorded and notes any medical malpractice or negligence arising out of the conduct of the Defendant concerning the birth of the Plaintiff."

68. In his report, he explained the likely causes of TK's conditions as follows:

> "Several weeks later [after birth] the child was diagnosed to have "West Syndrome" and much later diagnosed with Lennox Gastaut Syndrome.
> It should be noted that at no time during the labour or delivery process was there any significant abnormality of the fetal heart as monitored by the Cardiotocograph (CTC).
> According to the initial reports by Dr. Melvin Gross 29/May/2015/--TK was diagnosed with "Lennox Gastaut Syndrome" and noted to have MICROPCEPHALY.
> Microcephaly is defined as 'abnormal smallness of the head, a congenital condition associated with incomplete brain development.'
> Consequently, abnormal brain development should have been entertained as a likely cause of TK's Lennox Gastaut Syndrome. It however, was not and Dr. Grossman concluded that HYPOXIC ISCHEMIC ENCEPHALOPATHY was the only possible cause.
> Obviously, there is strong disagreement on my part.

Research of the literature would reveal the causes of LENNOX GASTAUT SYNDROME listed as follows:

1. Brain malformations, e.g. Cortical Dysplasia.
2. Perinatal Asphyxia- 20%
3. C.N.S. Infection, eg. Zika Virus, C.M.V., Toxoplasmosis
4. Inherited degenerative or metabolic conditions.
5. Genetic causes—particular genes have been identified associated with this syndrome, e.g., ALG 13, CHD2, DNMI.
6. Tuberous Sclerosis
7. Unknown 10-30%.

Based on the literature review, there are several causes of LENNOX GASTAUT SYNDROME not entertained by Dr. Grossman.

Unfortunately, Dr. Ronald Davis (who agreed to testify after Dr. Grossman's passing), made a statement which is not supported by the evidence.

In the letter dated 6 November 2017, it is stated "There is no other etiology for this current case of Lennox Gastaut Syndrome". This is simply not supported by the evidence.

In fact, the cause is more likely to be related to one of the other factors since there was no evidence of "fetal distress" at any point during the labour or delivery.

It should be noted that the "tool" used to monitor the fetus during labour and delivery (CTC) has a very low "false negative", i.e., to say if something was wrong with the fetus there is only a 1/1000 chance it would miss it.

This means that it is very likely that while the fetal oxygenation was still being controlled by the mother's circulation, by way of the placenta, it was okay.

However, as soon as the fetal brain took over control, immediately following delivery, normal function disappeared. This is consistent with a brain development problem as suggested by the presence of Microcephaly."

69. Dr. Johnson also filed a supplemental witness statement and report, which was mainly intended to rebut several of the conclusions in the expert witness report of Dr. Busowski. The supplemental WS contained, *inter alia*, the following observations (emphasis in the original):

"(i) Dr. Busowski stated that "an operative delivery was attempted using vacuum extractor", this is not accurate.

Dr. Carey **requested** the vacuum extractor to assist in the instrumental delivery, but was never supplied with one because according to the nurses it was not functional at the time. Consequently, a vacuum extraction **was never attempted**.

(ii) […] In the absence of a vacuum extractor (the preferred instrument) the alternate instrument was requested-"the outlet obstetric forceps". This was supplied to Dr. Carey and he attempted to apply the blades of the instrument but **was unable to get the blades to lock**. As a result, there was never an attempt at pulling. Consequently, this does not qualify as an attempt since no pulling occurred.

When Dr. Bloomfield arrived and evaluated the patient as indicated in Dr. Busowski's report – "review of the limited fetal heart rate tracing during labour revealed a category 1 status for the fetus (reassuring)". As a result, Dr. Bloomfield decided to re-evaluate the patient for possible instrumental delivery as one had not yet been attempted—no pulling yet. His evaluation suggested possible mal-positioning of the fetal heard and he was able to digitally correct this and then apply

the blades of the forceps. This resulted in a successful forcep delivery. Consequently **only one** actual attempt at pulling.

(iii) "Second attempt with different instrument"-this point is moot since only one attempt for the "outlet forceps" ever occurred, **no** vacuum was ever actually attempted-it was not functional therefore never supplied.

(iv) The Apgar Score at 1 minute reflects how the baby is functioning 1 minute after the umbilical cord is severed. Br. Busowski clearly indicated in his opinion that "review of the limited fetal heart tracing during labour revealed Category 1 status" i.e., it showed no signs of fetal compromise. As indicated in my initial opinion, as soon as the fetal brain took over control of the fetal vital signs, fetal compromise commenced. This would be a consequence of abnormal brain development.

(v) Dr. Melvin Grossman report (29/05/2015) clearly indicated that the infant had MICROCEPHALY. Microcephaly is caused by an inherited abnormality or congenital (developed in the uterus) anomaly. Microcephaly is not caused by an event at the time of delivery. […]

The sudden deterioration of the infant after delivery with the presence of MICROCEPHALY and the normal fetal heart tracing throughout labour suggest a brain malformation as the cause of the patient's LENNOX GASTAUT SYNDROME, and not a perinatal event."

70. Dr. Johnson was extensively cross-examined on his original witness statement and his supplemental witness statement ("his written evidence'), in respect of what were said to be inconsistencies and factual inaccuracies when compared with the documentary evidence and clinical notes. For example, he was challenged as to the accuracy of the statement in his supplemental statement that a vacuum pump was never supplied and never attempted, when Dr. Carey himself says differently. He answered this as follows:

> "A: I think Dr. Carey's statement indicated that he did ask for an initial vacuum, they supplied that one. It didn't function. He then asked for a second one, which was thought to be functional, but according to the nurse, it was locked in the theatre, so he could not be supplied with a functional one.
>
> I should have said it more definitively; that the functional vacuum was never supplied. The one that was supplied, it did not function. It did not count as an actual attempt to doing a vacuum, the pressure was never generated. So, there may be a little muddiness in my statement. […]
>
> No functional vacuum was ever supplied. You cannot have a vacuum, unless it is a functional one."

71. He was also asked about a statement in his supplemental statement that Dr. Carey applied the blades of the forceps twice but could not get it to lock, which was not in his notes. He explained that he "*must have gotten it from the notes…I would have no other way of getting that*". In re-examination, counsel for the defendant directed him to a paragraph of Dr. Carey's statement where he said that "*he could not get the outlet forceps to lock in place*", but there was no reference there that he applied the blades twice. What was said in his contemporaneous notes was that "*forceps attempted, progressing slowly but difficult*".

72. He was also challenged to explain his statement in respect of his assertion that Dr. Bloomfield's evaluation suggested "*possible malpositioning of the fetal head, and he was able to digitally correct this, and then apply the blades of the forcep"* to effect a successful forceps delivery:

> Q: I want you to look at what you are saying. You are saying, as a fact, that Dr. Bloomfield came, and digitally corrected a malpositioning that he found.
>
> A: My professional opinion, the records that I have, the circumstances, and based on the knowledge that I have, I am able to surmise what likely happened. I was not there, so obviously I cannot say this happened or that; one of two things had to happen. It was manually corrected, or it corrected itself while waiting. That is the reason why Dr. Bloomfield was able to have the baby delivered."

73. Dr. Johnson was also challenged on his ability to give "expert evidence" on areas of neurology and in particular any of the neurological conditions, as he was not a neurologist. He accepted this and that he had never provided expert testimony as such, although he had done so many times in the field of obstetrics and gynecology as chief of Medical Staff of the PMH. When asked whether Lennox Gastaut Syndrome was just "a severe form of epilepsy", he indicated that to some extent it was, and that one could just simply consult "*Pub Med*", which is an internet site for medical professionals, to obtain a definition and its various causes.

74. Dr. Johnson also provided a demonstration of the use of the Wrigley's forceps, which were identified in the evidence as the "only forceps" that are used at PHM. At the end of his live evidence, I asked Dr. Johnson whether it was the practice, even if a doctor is overseeing a SVD to have at hand instruments (including a vacuum and forceps) to assist, and he answered 'yes'. I also asked him whether there would be any way of knowing in advance whether or not a vacuum device is operable prior to use. His reply was:

> "No, unless you made a conscious decision to go and check it…which should…that is something nursing staff should attempt to ensure, that it is functional."

75. I will discuss Dr. Johnson's evidence in more detail later, as it forms a central part of the defendant's case. But in general, I did not find Dr. Johnson's evidence to be persuasive, neither in what he wrote in his witness statements nor during his live evidence. In some cases, his witness statements contradicted the defendant's own evidence of what transpired during the delivery and seemed to be an attempt to fill in factual gaps by reconstruction or hypothesis. For example, his suggestion that no ventouse was used directly contradicts the contemporaneous clinical notes, even though he attempted to explain this away during live evidence by adding the qualifier that no "functional" vacuum was used. Further, the suggestion that the plaintiff's syndrome was as a result of some congenital condition or simply unexplained has no correlation to the evidence actually led at trial.

76. Before leaving the evidence, it is important to set out the critical part of the clinical notes, in particular the delivery summary made by the defendant himself. I must say that the state of the

clinical notes was somewhat untidy. Some of the documents were not presented as continuous folios, words or portions were not copied correctly, and the timestamp of many of the entries was not recorded. The defendant made two entries in what appears to be the Hospital's official diary ("The Princess Margaret Hospital" (Continuation Sheet)), one on the date of the incident, 5/8/2012, and the second note (which is the more comprehensive note) two days later on the 8/8/12. The defendant accepted in cross-examination that his "contemporaneous notes" were made within 48 hours of the incident. However, there was no explanation as to the two sets of notes, and in particular the first set of notes, which completely omits any role by the defendant in the delivery. They are as follows:

Dr. Carey's notes:

[**5.8.12**]

Delivery stated 10:55 a.m. -11 am. Delivery vaginal. FHR 133 bpm. Vacuum and forcep delivery by Dr. Bloomfield. Cord around neck found by Dr. Bloomfield after. Episiotomy–sutured and repaired by Dr. Bloomfield after delivery. Baby flat. Apgar 1(2), 5(3), 10(4). Transferred to NICU by Dr. Lochan. Dr. Lochan performed immediate resuscitation. Fetal strip heart rate 133 bpm at delivery (normal variation). EBL 300 cc. Delivery ended 11:45 am (about). [*Marginal note*]: Senior Assistance called 10:35. Dr. Bloomfield arrived and conducted delivery. FHR normal, 130's.

[**7/8/12, 10:40 a.m.]**

"Rupture of membrane about 11:40 p.m. – 12:20 a.m. at home 4/18/12. Called from PSW about 4 a.m., 5/8/12. Arrived and examined Pt. about 4:30 a.m. Exam- 3-4cm dilated, SO 90% effaced. No fetal distress. FHR at 137 bpm. 10:15 a.m. at home called by PSW. Pt about 7 cm dilated S-+1, arrived about 10:30 a.m., too early, not ready for delivery, VE 8 cm, no fetal distress, started slow preparation about 15-20 minutes.
10:55 a.m. – 11:05 a.m., started delivery. Making good progress, but vagina tight-need assisted delivery. Episiotomy done. Dr. Lochan called-Pt's. private paed/neonatologist, arrived about 11:20 a.m. Vacuum suction tried but malfunctioning therefore forceps attempted. Progressing slowly, but difficult. 11:25 a.m. requested senior back-up. Dr. Bloomfield arrived about 11:35 to 11:40. Dr. Bloomfield arrived. FHR 130's, no evidence of fetal distress.
11:40-11:45- Dr. Bloomfield attempted extraction by vacuum-not functioning properly. Changed to forcep assisted vaginal delivery… [*overleaf*] …and resuscitation started.
APGAR score improved, able to have spontaneous respiratory (*sic*), and baby pink all over. Intubation done immediately after breathing started several seconds—baby intubated by Dr. Lochan. Transferred to NICU. [5th /8/12] Mother stable, later transferred to private room. [*Marginal note*]: Fetal strip checked twice. Dr. Carey, Nurse GB. Dr. Carey about 10:15 a.m., Nurse 10:25 a.m.]

Nursing Notes (**5/8/12, 8 a.m. - 4 p.m. shift**).

Patient received awake in early labour. Seen and examined by Dr. Carey. VE [*vaginal exam*] cx. [*cervix*] 4-5 cms dilated. 9:00 a.am. Conts. [*contractions*] 3-10 mod./st. Draining clear liquor. FH

[*fetal heart*] 137-144. LR [*IV fluids*] @ 125 mls hr. Labour progresses to SVD [*spontaneous vaginal delivery*] of a LMI [*live male infant*] @ 11.45 a.m. Aided by vacuum, forceps and episiotomy. Same sutured. […]

E. Court's discussion and conclusions

(i) Duty of care

77. There is no dispute that LK was a patient of Dr. Carey, and he therefore owed both mother and child a duty of care by virtue of the doctor-patient relationship. In this case, the defendant accepts and admits he owed a duty of care to the plaintiff and his mother (see Amended Defence, para. 6), although his case is that he discharged this duty.

(ii) Breach of duty

78. As summarized above, the legal test the court must apply, and how it should be applied, is derived from the cases of **Bolam** and **Bolitho**. I do not apprehend that there is any difference of opinion between the parties in this regard. Whether or not the defendant fell below the standard of care expected of a medical practitioner professing skills in obstetrics is to be decided on the competing expert evidence and other evidence before the court, according to the legal principles. In this regard, Mr. Gomez was right to describe this case as a "*battle of the experts*", as the nub of most clinical negligence claims involves the assessment of competing expert evidence.

79. I now turn to consider the evidence relevant to the question of breach of duty and clinical negligence. The case of the plaintiff, which is supported by the expert evidence of Drs. Busowski, and Davis, is that the operative delivery was the most likely cause of the child's injuries, which resulted from either sequential and/or improper use of multiple instruments and the prolonged delivery time in the birth canal.

80. In some jurisdictions, such as the UK for example, there are guidelines published by the medical profession (such as the Royal Colleges), which are typically referred to by parties to support their claims in medical negligence cases, either to show that the practitioner failed to follow the guidelines or alternatively provided treatment consistent with the guidelines. There are no such guidelines in The Bahamas, other than the generic standards in the Code of Conduct. Thus, to a large extent, the standards are somewhat impressionistic and must be deduced from the standards indicated in the opinions of the expert witnesses.

81. However, it is worthwhile to refer to an extract on operative delivery from a leading text on medical negligence ("*Medical Negligence*," 2nd Edition, Michael J Powers and Nigel H Harris, *Butterworths* 1994):

"**OPERATIVE DELIVERY**

35.105 *Forceps delivery* is a common source of litigation. The common errors are:

(1) Attempting vaginal delivery when:
    (a) mechanical warning signs are ignored or misinterpreted;
    (b) basic rules are disregarded;
    (c) fetal compromise is already present; or
    (d) head position or head level are wrongly assessed or not assessed at all;
(2) delivery is undertaken by doctors too junior or inexperienced;
(3) repeated attempts at delivery by junior doctors;
(4) delay in the decision – delivery interval.

35.106 Trial of forceps may be undertaken if there is doubt in the mind of the operator concerning the outcome. Such a trial is only permissible if the cervix is fully dilated, the head engaged (and no more than 1/5th palpable) and the pelvis is adequate. It should be closely supervised by an experienced obstetrician, in an operating theatre with full preparation for *immediate* Caesarean section should it fail. There is no place for trial of forceps if the baby is already showing signs of distress. The procedure frequently involves rotation of the baby from an occipito-posterior or occipito-transverse position with the specially designed *Kjelland's* forceps. Such an operation requires considerable skill and judgment, only acquired by extensive experience.

35.107 The *ventouse* is no longer used extensively in this country. The instrument is an alternative for the forceps and is often employed by the less experienced obstetrician whose skill is insufficient for anything other than a very simple forceps delivery. Particularly if the ventouse is applied to a malrotated head, maternal and fetal damage may follow its injudicious use and the same safeguards should be applied and caution exercised as with the application of forceps. The ventouse takes much longer in its execution and is inappropriate in the circumstances of fetal distress."

82. These passages are instructive, because in broad form they capture the standards identified by the expert witnesses for the conduct of operative deliveries, and which were in large measure accepted by the defendant, although there is obvious disagreement as to whether or not there was any failure to comply with these standards in the instant case. For example, the following standards were common ground among the experts:

(i) that the risks of an adverse event were relatively low if the process of an assisted vaginal delivery were properly managed;
(ii) that sequential use of instruments (vacuum and forceps) increased the risk of injury to the baby and mother and should normally be avoided;
(iii) that a long delivery interval during an operative delivery increased the risk of injury to the baby [20 minutes max suggested by the plaintiff's expert];
(iv) that instrumental delivery should only be attempted after the fetal head was assessed to be in the proper position;
(v) that the use of the vacuum should be abandoned after a certain number of pop-offs (3) and that the forceps should be abandoned if it fails to lock, or following a number of pulls (3 pulls);
(vi) that the improper use of either instrument, including application to a mal-rotated head, could cause injury to the child and/or the mother; and

(vii) That a C-section should be performed if instrumental delivery failed.

Allegations of Breach

Lack of professional qualifications

83. The first of the plaintiff's particulars of negligence alleged that the defendant was negligent in taking on the task of delivery knowing that he was not fully qualified to address all foreseeable problems which might arise in the birthing process. In his principal WS (as corrected during his live evidence) the defendant indicated that he had practised medicine for over 30 years in the areas of "*minor surgery, general practice and obstetrics*". He also stated that he had performed over "*1,000 child births*" which included numerous normal births as well as assisted births involving the use of forceps and vacuum devices and C-sections. He also stated that he has been a "*member of the Royal College of Obstetrics and Gynecology faculty of Family Planning and Reproductive Care since 1993 and a Fellow there since 2003*." In a supplemental WS, exhibiting those certificates, this was stated as "*I have been a Fellow of the Royal College of Obstetrics and Gynecology since the 7th day of June, A.D. 2006*".

84. He was cross-examined with respect to his qualification and being a fellow of the RCOG, and questioned as to why he did not use the designation "MRCOG" or "FRCOG" behind his name. His answer was that "*it was not a British practice*". Counsel for the plaintiff did not press this line of enquiry, but the certificates exhibited in the supplemental WS simply disclosed (as more accurately put in the principal WS) that Dr. Carey was a member (and later fellow) of the *Faculty of Family Planning and Reproductive Care* of the RCOG. This is not the same thing as being a member or fellow of the RCOG. In fact, the RCOG maintains a Public Register of Fellows and Members from all countries on its website, and Dr. Carey's name does not appear on that list. He is also listed as a general practitioner on the Bahamas Medical Council website, which is again publicly accessible. These are matters in the public domain.

85. I think the evidence clearly discloses that Dr. Carey is not a specialist in obstetrics or gynecology. As said in **Sidaway**:

> "The language of the *Bolam* test clearly requires a different degree of skill from a specialist in his own special field than from a general practitioner. In the field of neuro-surgery it would be necessary to substitute Lord President Clyde's phrased 'no doctor of ordinary skill', the phrase 'no neuro-surgeon of ordinary skill'."

86. However, his evidence is that he is the director of "The Family Medical Clinic" which has provided general health care services and "obstetrics" to patients since 1994 and that he has "*performed over 1,000 child births during the course of my practice*", including "*numerous normal births as well as assisted births involving the use of forceps and vacuum devices and c-sections*". In his Defence, he asserted that the was fully qualified in "*the specified field of medicine and to use all necessary medical instruments during birth*." This means that he has significant experience

in obstetrics. In my view, he therefore falls to be judged as a general practitioner skilled in the field of obstetrics with a significant practice in that area.

87. His representations as to his experience in delivering over "1,000" babies, including assisted deliveries, was not challenged by the plaintiff. If that is to be accepted (as it must), I cannot see how a doctor who has delivered that many babies can be said to not be qualified to take on a delivery which was meant to be a SVD. I accept that Dr. Carey is not a specialist in the field of obstetrics, but I reject the contention that he lacked the qualifications to undertake the delivery of TK and address potential issues that could arise during birth. This claim of negligence as to qualifications and experience is not made out.

Claims related to operative delivery

Attempts at delivery using different instruments

88. The defendant disputes that there was sequential use of the vacuum and forceps to assist the delivery. In fact, the position as indicated in Dr. Johnson's second statement was that the defendant was not supplied with a "functional" vacuum extractor and therefore a vacuum extraction was never attempted. Furthermore, because the blades of the forceps never locked, this was said not to qualify as an attempt at pulling, and presumably, no damage was done during the initial attempt at operative delivery.

89. The plaintiff's contention is that the evidence clearly demonstrates that there was sequential use of the instruments, which failed. For example, the Nursing Care Plan ("nursing notes") in the Plaintiff's Bundle states that the plaintiff's delivery was "*aided by vacuum and forceps & episiotomy*." Secondly, the Physician's Newborn Discharge Summary, prepared by Dr. Steve Lochan, bears the notation: "*Difficult delivery, failed vacuum & forceps*." This evidence, counsel for the plaintiff pointed out, was contemporaneous and written by independent objective individuals, other than the defendant, who were present at the material time and therefore ought to be given significant weight. In cross-examination, the defendant accepted that Dr. Lochan described a process where both vacuum and forceps failed.

90. Furthermore, the Defendant himself in his delivery summary (or summaries) indicated that both vacuum and forceps were attempted: the 5 August 2012 folio note reads—"*Vacuum and forcep delivery by Dr. Bloomfield*"; and the 7 August 2012 note read—*Vacuum suction tried but malfunctioning therefore forceps attempted*".

91. I find, on a balance of probabilities, that the defendant attempted operative delivery first with the use of the ventouse (vacuum extractor) and, secondly, the *Wrigley's* outlet forceps.

Use of vacuum and whether it failed to create suction

92. The plaintiff also asked the court to find as a matter of fact that the vacuum device did create suction and likely failed due to improper placement and 'pop-offs'. In her closing submissions, counsel for the plaintiff underscored the point that neither the nurse who was present nor Dr. Lochan, the attending pediatrician, made any mention that the vacuum was inoperable, or that there were mechanical or other issues with the vacuum pump. In cross-examination, Dr. Carey conceded this point.

93. Further, although (as mentioned) the father seems to have inverted the order in which the vacuum and forceps were applied, his evidence was also that the defendant tried the suction tool "*several times and it seem to keep slipping of the Plaintiff's head*" and "*he used it a couple times and gave it back to the nurse*". Dr. Lochan, a very experienced pediatrician, also observed that there was "*failed vacuum and forceps*".

94. In fact, the defendant himself, when asked by his counsel in re-examination to explain the meaning of the word "failure" when used in the context of a vacuum-assisted delivery said:

> "The word failure in a vacuum means that the vacuum would have been used to pull at least three occasions or popped off on three occasions or was used at 20 to 30 minutes without success. That will determine a failure. And for that to have occurred, the vacuum will have to be able to provide suction. In this case the vacuum had no suction. Therefore, it was not able to perform its intended function."

95. In closing submissions, counsel for the defendant contended that the "unchallenged" evidence of the defendant and Dr. Bloomfield was that the vacuum extractor was not working at all and did not produce any vacuum suction, and that TK Snr gave evidence "*that the vacuum was said to be not working*" (pg. 70 of transcript of 2 March 2021). This is not borne out by the evidence. Dr. Bloomfield's evidence was that he was *told* by the defendant that the vacuum was not working; there is no evidence that he ever tested the vacuum, and his evidence was that he did not use it. So, he is unable to give any direct evidence of the condition of the vacuum. Secondly, the evidence of the father was to the contrary. What he said, at the relevant part of the transcript, is "*I recall that the nurse did <u>not</u> tell Dr. Carey that the vacuum was not functioning. Dr. Carey used the vast (sic) [vacuum] several times, and then he said to the nurse that, this was not working*". He did, however, recall Dr. Carey asking for another vacuum.

96. In my view, the totality of the evidence is more consistent with the defendant making several attempts at pulling with the vacuum device, and the device disengaging during delivery attempts because of inappropriate placement of the cup, hence the slipping off or pop-offs. I accept on a balance of probabilities, that the defendant's attempted vacuum delivery failed because of the cup disengaging or pop-offs (not because the device was incapable of providing suction). I find it more likely than not that the nurse would have checked the equipment prior to it being made available for use.

97. I have found, on a balance of probabilities, that the vacuum was operable. But I would note in passing and by way of *obiter dicta* that in any event, as suggested by the Code of Conduct, a doctor who avails himself of any supporting medical service, is responsible for it being "reliable".

98. I also accept on the evidence of the experts that the use of a vacuum extractor can cause neo-natal injuries. Dr. Busowski confirmed that pop-offs can cause "*bleeding within the brain, which happened to this baby*". Dr. Davis was also of the view that the application of the vacuum cup, depending on technique, could be capable of causing injuries to a baby, although he accepted that he was not an OBGYN doctor. For example, it was Dr. Busowski's expert evidence that a study found that 82 percent of completed operative deliveries (vacuum or forceps) occurred with one to three pulls and that pulling more than three times was associated with infant trauma in 45 percent of such deliveries. I find further, on a balance of probabilities, that the trauma from the repeated attempts at the use of the vacuum caused or contributed to the injuries sustained by TK.

Use of forceps and whether forceps locked

99. The plaintiff invited me to make a finding of fact that the defendant got the forceps to lock, but was simply unable to effect the delivery with the forceps. This assertion was based on the defendant's statement that "*forceps attempted-progressing slow but difficult*." The reference to progressing slowly, the plaintiff says, suggest that the forceps were locked but that the defendant could not get the baby out.

100. I do not accept this suggestion. In fact, when the defendant was asked to explain what he meant by his note, he said that it meant that "*the rotation of the head was where it was difficult…it caused the forceps to not lock"* and "*…that it [the baby] was coming down the canal slowly…because the rotation was off*". He also said that the baby's head was "asynclitic", meaning it was off-center, and that the "*asynclitism at that point didn't allow it [the forceps] to actually lock*".

101. I accept the explanation of the defendant on this point, and I believe that the most logical reading of the evidence is that the defendant was unable to get the forceps to lock because of the mal-rotation of the baby's head. But I reject his suggestion that the failure of the forceps to lock meant that no damage could have been done to the baby. The evidence of Dr. Busowski was very clear that attempts at trying to get it to lock was sufficient to cause or contribute to damage to the baby. As he explained, the baby's head could be compressed by trying to put forceps on, and that "*you don't need to get them in place to cause injury to the baby or brain trauma.*"

Sequential use of instruments

102. It was common ground in the medical evidence that the sequential use of instruments for operative delivery should not be routinely done. Dr. Busowki's evidence was that the medical data indicated increased maternal and neonatal morbidity from sequential application of vacuum and forceps and that infants delivered by both instruments (as opposed to one or the other) were

almost twice as likely to suffer subdural or cerebral hemorrhage. The defendant himself conceded that the use of multiple instruments was "*frowned upon*". Dr. Bloomfield said emphatically in cross-examination that:

> "…[Y]ou don't go from a vacuum because the vacuum doesn't work and then go to a forceps. If the vacuum doesn't work, the forceps are unlikely to work as well. …So, I really don't know of anybody who would move from a vacuum that didn't work in the process of delivering the baby to now attempting to do a forceps. It's not going to work."

103. In fact, Dr. Busowski concluded that the use of multiple instruments resulted in the trauma to the baby and was "*the direct cause of the child's current and lifelong condition*". I therefore find on a balance of probabilities that the use of multiple instruments contributed to or caused the plaintiff's injuries and that it fell below the standard of care required of a physician in the defendant's position.

Prolonged delivery interval

104. There was no disagreement among the experts that the time from dilation to the birth of the child was well within the accepted medical range for normal or spontaneous vaginal deliveries. According to the evidence, it took about 45 minutes from dilation to delivery. Dr. Johnson's evidence was that 60 minutes was acceptable. Dr. Busowski concurred with this and indicated that up to 120 minutes (2 hours) was acceptable, especially with women who are multiparous (i.e., have given birth to more than one child).

105. However, Dr. Bukowski's opinion was that the acceptable range for *operative* deliveries was 15-20 minutes, and that the procedure should be abandoned after this period if unsuccessful. Dr. Carey disagreed with the 20-minute cut-off, but accepted that such deliveries should not go beyond 30 minutes, according to standards he says are promulgated by the American College of Obstetricians and Gynecologists. However, his case was that in any event the delivery of the baby was within the accepted range for operative deliveries.

106. There is no precise timeline given for the operative stage of the delivery. Neither Dr. Carey's notes, nor any of the clinical notes, records precisely at what point during the delivery the vacuum was attempted, followed by the forceps. The evidence as to the timeline is that delivery started at about 11:00 a.m. At 11:25 a.m., Dr. Bloomfield was called. The call was clearly made *after* Dr. Carey had unsuccessfully attempted the vacuum and forceps delivery. He indicates that the use of the devices took about 5 minutes, so by deduction, this was attempted around 11:20 a.m. Dr. Bloomfield arrived at about 11:35 and delivered TK at about 11:45. So from the use of the vacuum to delivery, a total of 25 minutes.

107. I accept on the evidence, and the experts on both sides are agreed, that the period of 45 minutes for a NVD was well within the safe range. However, the critical issue is what was the status of the baby during and following the 25 minutes when operative delivery was attempted by

the defendant and the baby ultimately delivered by Dr. Bloomfield? When asked about the timing, Dr. Busowski said:

> "…The issue is, *how* this baby was delivered. I have no idea if the 45 minutes was a correct line of time or not. I do not know what was going on with the baby; no fetal monitoring strip indicated the same; if the baby's heart rate was good, if it had a muchal cord, and was oxygen supply being cut off to the baby…whose heart rate is down during this period."

108. The evidence in this case was that the baby was trapped in the birth canal and descending. The evidence was also that the baby was born with a muchal cord (cord wrapped around the neck), and Dr. Busowski's stated that the farther the baby descended into the birth canal, the tighter the cord would get, cutting off the oxygen supply to the baby. Dr. Davis noted that this "muchal" cord "*only complicated and aggravated the hypoxic ischemic event*".

109. I accept that the time taken for the delivery of TK was not inordinate for a normal vaginal delivery. But, even using the defendant's timelines, the length of time would have been roughly 25 minutes since operative delivery began, which would put it 5 minutes outside the 20 minutes which Dr. Busowski indicated was the suggested cut-off based on medical standards. In fact, Dr. Bukowski's evidence was that increasing duration of operative vaginal delivery time was more strongly associated with adverse neonatal outcomes than the number of forcep pulls or vacuum pop-offs. Further, that durations greater than *12 minutes* had the strongest association with both adverse neo-natal outcomes and failed operative deliveries. In this case, the evidence was that the process took at least twice that time.

110. I find therefore on the balance of probabilities that TK was trapped in the birth canal for a prolonged period during the operative delivery process and it is more likely than not that he suffered the hypoxic insult during that period.

Improper use of instruments/mismanagement of labour (assessment of position of baby's head)

111. It is of some significance, that the defendant's own evidence and that of his experts confirm that the most likely scenario accounting for the failure in the defendant's attempt at operative delivery was that the baby's head was malrotated. Dr. Carey said he suspected that the baby's head was asynclitic, or off by a few millimeters, which made it difficult for the forceps to lock. In his evidence, Dr. Johnson surmised that Dr. Bloomfield's "evaluation" (or the most likely scenario, since Dr. Bloomfield did not give written evidence of his evaluation) suggested possible mal-positioning of the fetal head and that either this was corrected by the continual contractions, or was digitally corrected by Dr. Bloomfield before he applied the forceps.

112. Dr. Carey accepted in cross-examination that the position of the baby's head was "extremely important" to achieve the "necessary function" (apparently delivery), although he said that misplacement does not make a difference "*if the pump is not working*". In his live evidence, Dr. Bloomfield similarly stressed the importance of the position of the baby's head to both an

attempted delivery by vacuum extractor or forceps. He surmised that the baby probably came down into a more favourable position by the time he got there, but conceded that he could not speak to what the situation was when Dr. Carey attempted delivery. As he said:

> "First of all, you need to know the position the presenting part is in the vagina, alright. And you identify the fontanelles on the baby. You want to know where the biparietal diameters are, that's the sides of the head, alright. You need to know whether the baby is looking down or looking up. …[Y]ou want to identify where the fontanelles are and you want to put it that far back in the middle of the head if it's possible… You don't want to put it over any other fontanelle. The fontanelles are the spaces between the bones and the skull. "

113. In re-examination, Dr. Busowski was critical of the fact that neither Dr. Carey nor Dr. Bloomfield documented what station the baby's head was in when attempts were made to use the instruments.

114. All of the experts accepted that the assessment of the proper position of the baby's head is critical to an effective operative vaginal delivery, and this was not disputed by the defendant. It appears on the defendant's own evidence, and I accept on a balance of probabilities, that delivery was attempted by him when the plaintiff's head was malrotated, and therefore wrongly assessed. This led to the inability to deliver the plaintiff even after successive attempts with more than one instrument, and the prolonged delivery interval. This was not in keeping with the standards of care required of a physician in the defendant's position.

Referral to senior support

115. One of the allegations of negligence is that the defendant failed to refer LK to a consultant when he was unable to get TK to pass through the birth canal. The evidence is clear that the defendant did in fact enlist the support of Dr. Bloomfield, a senior obstetrician when attempts at both SVD and assisted vaginal delivery failed. So on the face of the pleadings, this allegation must fail. The only question is as to the timing, and that issue is dealt with under prolonged delivery.

Failure to proceed to CS or refer to senior support for CS

116. The defendant refuted these allegations on the basis that: (i) up to delivery, the monitoring of the mother and baby had appeared normal; (ii) Dr. Bloomfield's evidence that the baby was at the perineum when he arrived; and (iii) Dr. Busowski's evidence that the modern practice in the US is to wait for a period longer than the 45 minutes it took for the delivery of TK.

117. As discussed, Dr. Busowski's evidence as to the longer timeline for birthing is not relevant to the context of assisted or operative vaginal delivery, and he was very clear that the cut-off time for such a process was 15-20 minutes. Dr. Carey summoned Dr. Bloomfield on an emergency basis, and the latter thought it necessary to immediately deliver TK with forceps.

118. The evidence of Dr. Bukowski was that a CS should immediately have been performed once the attempt at using forceps or vacuum had failed. In his evidence, TK said he asked about a CS and was told that it was "too late" and that it would cost more. Dr. Carey said he did not remember Mr. Kelly asking him about the CS but conceded that "*I think it was said*". In any event, he said his response was not that it was too late or that it would cost more (although it would). His answer was that it was not too late to do it, and that "*if a C-section was necessary it would have been done*". However, he explained in cross-examination that, as the mother was a primigravida (pregnant for the first time), a CS carried certain risks and in any event it would have taken hours to organize, as it would have required at least four doctors (including an anesthesiologist) as well as additional medical staff for the procedure. In his view, the outcome could "seriously have been worse", as the Plaintiff "*would have been in the mother's womb…for another several hours*."

119. What this illustrates is that in fact no prior preparations had been made for a C-section as an emergency option in case of complications. This is clearly contrary to the standards which Dr. Busowski said should pertain, and those indicated in the text on medical negligence.

120. I am of the view that on the expert evidence, conducting an operative vaginal delivery, particularly with the use of forceps, without the facility to immediately move to a C-section in case complications of the kind that arose with LK developed was below the acceptable standard. However, I do not accept counsel for the plaintiff's statement that "*Had a caesarean section taken place the whole of the Plaintiff's injuries would have been avoided*". As discussed, on a balance of probabilities, the injury to the plaintiff was caused during the attempts at instrumental delivery. Thus, a C-section following those attempts would not necessarily have changed anything. So it is not possible to conclude in the circumstances that the omission to carry out a C-section at that point (or even to have planned for one) would have prevented the injuries to TK, and that it thereby constituted negligence. Further, having regard to the evidence as to the additional time that would have been needed to arrange and perform such a procedure, and the urgency with which it was thought necessary to delivery TK, a C-section might have had disastrous consequences.

Defendant's case

121. A critical plank in the defendant's case was that the baby never showed signs of fetal distress, based on CTG monitoring and observations, and therefore there was no cause for concern as to his condition during the operative process. The problem with this assertion, as pointed out in the evidence of Dr. Busowski, is that there is no empirical evidence of the FHR beyond 10:50 a.m., which is the critical period for the delivery. The fetal heart strip at 10:50 a.m. records that the FHR was within the normal range of between 110-160. The nurse's 9 a.m. entry also indicates that the fetal heart rate was 137-144, but there is no time stamp for this entry, and all that can be said is that it was made at some point after 9 a.m.

122. In his notes, in an entry placed chronologically after the arrival of Dr. Bloomfield, the defendant notes that the FHR was in the "130's" and there was no evidence of fetal distress.

However, in the margins of that note it is indicated that the fetal strip was checked twice—by the defendant at about 10:15 a.m. and by the nurse at about 10:25 am. In his WS, he stated that the baby's heartbeat was "*shown to be between 137 and 144 beats per minute during the period of childbirth*". Dr. Bloomfield also said that there were no abnormal readings or indicators to "*portend that the baby up to that time was at risk or in jeopardy*", and if there were any such indicators, he would have opted for a C-section delivery and would have expected the Defendant to do so. As noted, the option for an emergency C-section was in reality not so readily available.

123. The Court has great difficulty on the totality of the evidence accepting the representations that the baby's FHR remained within the safe range during the period of delivery for several reasons. Firstly, it was never explained why the fetal heart strips were not produced for the critical period of the child's birth. In cross-examination, in response to why there were no strips to demonstrate what happened during the birth of TK, Dr. Carey said that "*the strips were worn out*" and could not be located. He said further that attempts to locate them later at the Hospital also failed. However, continuous strips were produced for the time period from about 4:00 a.m. to 10:50 a.m. on 5/8/2012 and though aged ("worn out"), they were legible. There was never any explanation (or any credible explanation) as to why no strips were produced for the operative delivery period.

124. Secondly, in his supplemental WS, TK Snr recounts hearing a beeping sound on the monitor, which he said he asked the defendant about. In his account TK Snr. said the plaintiff went over to the monitor the check the sheets and then said "*this baby has to come out*". When challenged that there was evidence of fetal distress on the monitor, the defendant staunchly denied this and said that the heart rate monitor would not beep in any event, and that he did not move to check the machine. He explained the beeping noise which TK Snr heard as probably a heat lamp which "had a history of beeping". While I have noted that trauma can sometimes create some gaps in memory, I found TK Snr a credible witness, and there is no reason he would testify to something that did not take place, and in particular put words in the mouth of the defendant. In my view, on a balance of probabilities, the CTC machine did emit beeping sounds to indicate abnormal readings, and I do not find the beeping lamp theory credible.

125. Thirdly, the actions of the defendant do not support his assertion that the plaintiff was not in any kind of distress. During cross-examination, he indicated that he suspected the baby's head was asynclitic, which could correct in 10 minutes or several hours. It is reasonably clear, however, that time was of the essence, as he had Dr. Bloomfield summoned on the basis that this was a medical emergency. Dr. Bloomfield's evidence was that he left home immediately wearing his yard clothes because he "*sensed that this was an emergency*". He could only have formed that opinion based on what was told him by the nurse who called him. He added that were it not for the fact that he was called "*as if it were some kind of emergency*," he would have allowed the mother to push and the baby would probably have come out. However, once he was there and assessed the situation, he proceeded immediately to a forceps delivery. Dr. Davis's interpretation of the records was that "…*Terrance was stuck in the canal and had to be delivered quite aggressively*".

126. Fourthly, and significantly, in his "Newborn Discharge Summary", Dr. Lochan's initial assessment of TK was as follows: "*Flat at birth; no spont. Mot.* (spontaneous motion); *pale & bradycardic; intubated and automatically ventilated.*" In his report on 8 August 2012 (three days after birth), Dr. Edwin Demeritte recorded: "*Patient is a 3-day old baby boy with history of neonatal seizure within the first hour of life that consisted of full body stiffening for about 20 minutes associated with bradycardia*." Thus, the attending pediatrician recorded that the baby was born bradycardic (heart rate too low), which the neonatal neurologist also recorded based on his review of the records. These findings are not consistent with the representation that the fetal heart rate remained in the normal range during the birthing process and at delivery.

127. Fifthly, there was no indication that the CTG malfunctioned. In fact, Dr. Carey's evidence was that although there were no fetal strips available for the critical period, it was still recording. In his witness statement, Dr. Johnson indicated that the "tool" used to monitor the fetus during labour and delivery (CRC) has a very low "false negative", "…*that is to say, if something was wrong with the fetus there is only a 1/1000 chance it would miss it*."

128. With respect, and for the reasons I have given, I do not accept the evidence that the FHR for TK remained in the safe or normal range during the delivery process. As discussed below, all of the physicians who examined TK at birth and shortly afterwards diagnosed his condition as HIE, and the attending pediatrician recorded that he was born bradycardic. These conditions would likely have manifested in abnormal readings on the CTG. I therefore find, on a review and assessment of all the evidence, that it is more likely than not that there were readings on the CTG indicating fetal distress.

Other possible etiologies for TK's condition

129. The defendant's main defence, as advanced by his expert witness, is that there was some other condition responsible for TK's condition, and not HIE. As set out in the evidence above, Dr. Johnson indicated that only 20% of cases are caused by perinatal asphyxia and suggested that other congenital or in-utero conditions could have caused TK's LGS. These were suggested to be, *inter alia*, brain malformations, certain viruses or toxoplasmosis, inherited degenerative or metabolic conditions, genetic causes, tuberous sclerosis, and 1-30% of cases with no known cause.

130. Dr. Davis dismissed these theories as having no evidential basis, and was firm that the cause was HIE. He concluded in his WS that there was "*no other etiology for this current case of Lennox Gastaut Syndrome.*" It is useful to again reproduce (in redacted form) a portion of his cross-examination on this issue by counsel for the defendant:

> A: So, I accept that there are a number of other causes associated for Lennox Gastaut Syndrome including some of the things you mentioned as well as some of the ones you didn't. […] All of those are certainly possible to do that but none of those are in evidence here in this particular case. What is in evidence is the 20% that you mentioned that can also be associated and I accept though. And that would be the, a not sick injury and that's exactly where he falls. He is one of the 20%.

Q: Well, we put it to you that it may well be that he could fall into the 30% category, which is completely unknown.
A: Well, that will not go along with his neuro imaging findings.
Q: And how do you rule out Cortical Dsyplasia?
A: You rule it out with neuro imaging as well as now a number of genetic profiles that are available…. But the vast majority are done from neuro imaging.
Q: But didn't you say in your opinion that in terms of brain injury that it was inconclusive?
A: No sir. I'm pretty sure, I'm quite clear Hypoxic Ischemic Injury.

131. In fact, the diagnosis of HIE was consistent and confirmed by a number of physicians, both local and international. For example, the local neurologist who examined TK a few days after birth, recorded that TK was an infant "…*with a history of difficult delivery, resulting in low apgar scores, perinatal depression, seizures, and hypoxic ischemic encephalopathy*." Dr. Lochan, the attending pediatrician, also wrote that the TK has "*perinatal depression*", which Dr. Johnson accepted was a cognate phrase for perinatal asphyxia. The radiologist who analyzed TK CT scans, also found that the features "*suggested a grade 3 hypoxic ischemic encephalopathy*". During cross-examination, Dr. Johnson conceded that all of these physicians had found that TK had HIE.

132. In his written evidence, Dr. Davis dismissed the suggested congenital causes for the injury as follows:

> "It is interesting to note that in the remainder of the records that were provided, there was no sepsis appreciated. It is also noted that he did not have any other cause for the bad delivery structurally. For example, there was no structural abnormality of the brain implying a genetic abnormality, nor was any genetic abnormality noted otherwise. In addition, the remainder of blood work demonstrated no evidence of a metabolic disorder.
> What is noted, however, is that he had multi-organ involvement with metabolic abnormalities of calcium, sodium, magnesium likely as a consequence of the cortical injury and elevation of GGT, ALT and AST implying liver injury as well, again likely as a consequence of the hypoxic ischemic event, since there was no other reason noted such as sepsis, structural abnormality noted otherwise. In addition, the remainder of the blood work demonstrated no evidence of a metabolic disorder."

133. Dr. Johnson further noted that TK was noted to have "microcephaly", which according to him is defined as "*abnormal smallness of the head, a congenital condition associated with incomplete brain development*". He theorized that consequently, abnormal brain development should have been entertained as a likely cause of TK's LGS. In his supplemental witness statement, he said:

> "Microcephaly is caused by an inherited abnormality or congenital (developed in the uterus) anomaly. Microcephaly is not caused by an event at the time of delivery."

134. He explained further that the reason there was no evidence of fetal distress was because while the fetal oxygenation was still being controlled by the mother's circulation by way of the placenta, it was okay, but that:

> "[A]s soon as the fetal brain took over control of the fetal vital signs, fetal compromise commenced. This would be a consequence of abnormal brain development. […] The sudden deterioration of the infant after delivery with the presence of microcephaly and the normal fetal heart tracing throughout labour suggest a brain malformation as the cause of the patients' LGS, and not a perinatal event."

135. Dr. Bukowski dismissed this explanation out of hand when it was put to him in cross-examination.

> A: This is a false statement. The fetal brain takes over control very early in the process. The fetus [at] 18 weeks is having breathing, movement, that is all brain functions. It does not happen when the baby is born. It happens a long time beforehand. And, if you use that criteria, the fetal brain was functioning normal, because the baby had a reactive strip. There was nothing wrong with that baby until the delivery occurred. […]
>
> [T]he baby up until an hour before it was born, had normal brain function. The heart rate was normal, had variability. The previous ultra sound that was done a couple of weeks earlier showed a normal brain. People who did the ultra-scan, seems to have a nice scan. […] This baby was super depressed when it was born, and is a normal looking baby an hour before it was born. So something happened in the interim.

136. I reject the suggestion that TK's injuries were caused by any of the conditions or etiologies advanced by Dr. Johnson as lacking any basis in fact and being improbable. I find, on a balance of probabilities, that TK suffered a significant hypoxic ischemic injury during the operative delivery process which led to the neurodevelopmental sequelae including the motor and cognitive disabilities suffered (LGS, cerebral palsy, epilepsy, microcephaly, etc.) and this was caused by mechanical trauma during child birth by the injudicious use of the instruments.

(iii) Causation

137. The next element is to establish causation, firstly on factual basis, which is normally determined on a "but for" test—in other words, the injury would not have occurred but for the defendant's breach of duty. The defendant pleaded in the alternative that if the plaintiff suffered the alleged or any damage at all, "*the alleged damage is not the result of any act or default of the Defendant*."

138. However, the expert evidence of both the neurologist and obstetrician all point in the same direction—that the operative delivery process using sequential instruments, coupled with the prolonged period the baby was trapped in the birth canal, was the most probable and perhaps the only cause of the injury to the baby. All the signs were that the baby was healthy and that no abnormalities had been identified prior to the delivery, and in the weeks leading up to it. For example, the scan taken at 35 weeks + 5 days recorded that "*no craniospinal anomalies noted*" and that "*no gross fetal anomalies noted*". Dr. Busowski concluded that: "*In this tragic case the*

use of multiple instruments used for …delivery resulted in the trauma to the baby. These injuries were the direct cause of the child's current and lifelong condition."

139. Although Dr. Carey is the only named defendant, an issue arose because it was another physician (Dr. Bloomfield) who actually delivered the baby by operative means. At several places in his closing submissions, the defendant asserted that "*the clear evidence is that Dr. Bloomfield (not the defendant) came and delivered the baby*." Further, in the first set of clinical notes, it was suggested that the consultant who was called also used the ventouse and forceps, but it was clarified in the evidence that he had not. The question was put to Dr. Busowski as follows:

> Q: Now prior to Dr. Bloomfield making that clear… the question that was put to you by Mr. Gomez was that if both Dr. Carey and Dr. Bloomfield had used a vacuum and forceps, the suggestion to you was that you would not know who was responsible, and you agreed, in the context of that scenario. Now that we have this evidence, accepted, that Dr. Bloomfield did not use a vacuum, and that he used the forceps, and relatively [easily] got the baby out, would that answer change?
>
> A: I would go with Dr. Carey causing the issue with the baby.

140. However, no claim of negligence was ever made against Dr. Bloomfield, perhaps for obvious reasons. The evidence was that Dr. Bloomfield was able to successfully deliver the baby in about five minutes, and that there were no issues applying the forceps. Whether this was because the baby's head had rotated in an ideal position by the time Dr. Bloomfield arrived, or because of his superior knowledge and experience, it matters not. The fact is that he was able, with minimal effort, to deliver the child using the same forceps that Dr. Carey was unable to deliver him with.

141. I therefore find on a balance of probabilities that the defendant caused the injuries to the plaintiff by his successive failed attempts to deliver the baby prior to the arrival of Dr. Bloomfield, and that the injuries were of a kind that fell within the scope of the defendant's duty of care and were forseeable.

Res Ipsa Loquitur

142. Mrs. Rolle relied on the doctrine of *res ipsa loquitur* as part of her claim in establishing negligence. Firstly, as has been observed in several local cases which are relied on by the plaintiff, *res ipsa loquitur* is not a principle of law and does not reverse the burden of proof. Furthermore, the judicial trend is moving away from any significant reliance on this doctrine in the clinical context in all but the clearest of cases. For example, in **Paula Thomas v Paul Curley** [2013] EWCA Civ 177, the UK Court of Appeal circumscribed the doctrine as follows:

> "The term *res ipsa loquitur* describes a situation in which it is possible for the court to draw an inference of negligence where a claimant has proved a result without proving any specific act or omission on the part of the defendant which has produced the result. If it is proved on the balance of probabilities that the result could not have happened without negligence and that the situation was under the control of the defendant, then it is open to the court to conclude that it is more likely

> than not that the result was caused by negligence. However, it is not appropriate to draw such an inference where there is evidence as to why or how the result occurred….*Res ipsa loquitur* has been applied in the past in medical negligence cases (e.g., *Cassidy v Ministry of Health* [1951] 2 K.B. 343. However, it has more recently been doubted whether it is of much assistance in such cases…the Court of Appeal made it clear that *res ipsa loquitur* will rarely be relevant in medical negligence cases."

143. In the instant case, several of the specific limitations to the application of *res ipsa loquitur* in clinical negligence cases are present. For example, the doctrine is difficult, if not impossible to apply in medical scenarios involving multiple practitioners (see **Walsh v Holst & Company** [1958] EWCA Civ J07001-1), or where there may be alternative explanations (**Cassidy v Ministry of Health** [1951] 2 KB 343). Even though the Court rejected the alternative explanations based on the lack of evidence, the fact that there were possible alternative explanations militates against the application of the doctrine. Finally, the doctrine is not applicable when there is evidence explaining how the injury occurred or some known mechanism for the injury (**Paula Thomas v Paul Curley**), which in this case was said to be the improper use of multiple instruments.

144. In all the circumstances of this case, I do not think that the doctrine has any applicability to this case and I do not find that it is appropriate to draw any inference of negligence based on the doctrine.

(vi) Resulting damage or injury

145. There can be no gainsaying that the plaintiff suffered actual harm from the physical trauma during birth. As noted, the plaintiff has suffered severe and permanent neurological and developmental issues resulting from the hypoxic insult sustained during childbirth, and the Court is of the opinion, based on the totality of the evidence, that these injuries resulted from the breach of duty during the plaintiff's birth.

Court's conclusions on the expert evidence

146. For the reasons which have been given, and the discussion which follows below, I obviously prefer the evidence of the plaintiff's experts that the defendant's conduct of the operative delivery did not accord with the practice to be expected of a physician skilled in the field of obstetrics and with a significant practice in that area. The evidence of Dr. Busowski and Dr. Davis clearly conflicted with the evidence of Dr. Johnson, and in this regard the Court was guided by the dicta of Bingham J. in **Ecklersy v Binnie** [1988] 18 Con LR 1, where he said:

> "In resolving conflicts of evidence the judge remains the judge. He is not obligated to accept evidence simply because it comes from an illustrious source: he can take account of demonstrated partisanship and lack of objectivity. But save where an expert is guilty of deliberate attempt to mislead (as happened very rarely), a coherent reasoned opinion expressed by a suitably qualified expert shall be the subject of a coherent reasoned rebuttal, unless it can be discounted for other good reasons."

147. In fact, counsel for the plaintiff levied trenchant criticisms of the evidence of the defendant's main expert witness as being unreliable and unsafe, owing to internal inconsistencies and other inaccuracies. As pointed out in **Bolito** (and explained in **C v North Cumbria University Hospital**), the court is not bound to accept medical opinion that it considers to be logically indefensible, notwithstanding its source. Mrs Rolle KC identified what were said to be a number of inconsistencies and unsubstantiated statements in the evidence as follows:

(i) The statement (in the supplemental WS) that "*no vacuum was ever actually attempted—it was not functional therefore never supplied*" is wholly inconsistent with the defendant's case that the vacuum extractor was in fact supplied and attempted, but was not functioning properly, or at all.

(ii) The statement in the report, with a 11:30 a.m. time stamp, to the effect that "*After attempting to apply the forceps twice, and being able to get them to lock, he abandoned the procedure, and requested help from Dr. Bloomfield*" is inconsistent with the Defendant's notes. There is no reference to the time stamp in the notes. The defendant's note was simply "*Vacuum suction tried but malfunctioning, therefore forceps attempted*…". Further, when cross-examined about the source of the time stamp and the related information, his response was: "*I honestly would not be able to, being a year having prepared the report, I really couldn't tell you at this point*."

(iii) In describing Dr. Bloomfield's intervention and delivery, he stated that "*His evaluation [Dr. Bloomfield's] suggested possible malpositioning of the fetal head, and he was able to digitally correct this, and then apply the blades of the forcep. This resulted in a successful forceps delivery*." However, although this was Dr. Johnson's impression or inference based on the facts of what likely happened, Dr. Bloomfield never stated and neither was it recorded anywhere in the clinical notes that this actually occurred, and yet it was presented as a statement of fact.

(iv) Further, as a general proposition, Mrs. Rolle was at pain to point out in cross-examination that, although Dr. Johnson proffered various opinions on the possible other causes of TK's neurological conditions, Dr. Johnson was not in fact a neurologist, and not qualified to give any expert opinion on neurological conditions.

148. There are a few other points about this evidence that I will mention. For example, Dr. Johnson made the bare assertion that "…*microcephaly is not caused by an event at the time of delivery*". He also suggested several different etiologies for TK's LGS, based purely on hypothesis. Firstly, as he accepted, he is not an expert in the discipline of neurology, although the Court would not automatically disregard the opinion of an obstetrician of his vast experience. In fact, to the extent that the only attempted rebuttal of the cause of TK's LGS was the etiologies advanced by Dr. Johnson, who is in fact not a neurologist, counsel for the plaintiff contended that there was in fact no rival expert evidence to rebut the causes which had been identified by the experts for the Plaintiff. I agree.

149. Secondly, even if he were an expert, as said by the UK Supreme Court in **Kennedy v Cordia** [2016] UKSC 6 [48]: "*An expert must explain the basis of his or her evidence when it is not personal observation or sensation; mere assertion or 'bare ipse dixit' carries little weight*…". A bare assertion that microcephaly is not due to perinatal trauma without any explanation carries little to no weight. On the contrary, Dr. Grossman, who is an expert in child neurology, and who treated TK from he was some 9 months old, made the observation in 2015, and indicated that the most likely cause of the injuries was "*anoxic hypoxic encephalopathy, possibly ischemic changes due to the peri-natal stress*".

150. I also did not find the theory about the "*fetal brain taking over*" at birth and causing fetal compromise convincing, and Dr. Busowski stated bluntly that it does not "*make any sense to me*". It certainly does not explain why TK was born unconscious and bradycardic, when by all accounts he was normal before delivery.

151. In **Bolito,** Lord Browne-Wilkinson said:

> "In the vast majority of cases the fact that distinguished experts in the field are of a particular opinion will demonstrate the reasonableness of that opinion….But if in a rare case, it can be demonstrated that the professional opinion is not capable of withstanding logical analysis, the judge is entitled to hold that the opinion is neither reasonable or responsible.
> I emphasize that in my view, it will seldom be right for a judge to reach the conclusion that view genuinely held by a competent medical expert are unreasonable. The assessment of medical risks and benefits is a matter of clinical judgment, which a judge would not normally be able to make without expert evidence."

152. Regrettably, I find that this is one of those rare cases. Not only does some of the critical parts of the expert evidence fall outside the area of expertise of the witness, but the evidence is also inconsistent and unsatisfactory in a number of other respects. It has to be remembered also, that despite the critical importance of expert evidence in claims for clinical negligence, it is only one part of the "jigsaw piece" and the Court has to have regard to the evidence as a whole, seeking out consistency in determining the probable facts (see, **CXB v North West Anglia HNS Foundation Trust** [2019] EWHC 2053 at [44]).

General observations on evidence

153. There are two general observations I would make before leaving the evidence. Firstly, in addition to explaining the basis of his or her evidence, experts should give details of any literature or other material on which they rely in making their report, which should be attached, so that the Court may have recourse to the primary sources if it wishes to do so. None of the expert reports included the sources which were relied on for the opinions expressed. In this regard, the Court would remind practitioners of the criteria for the content of expert evidence set out at 32.4 of the *Civil Procedure Rules 2022*, based on the well-known guidelines set out by Creswell J in **National Justice Compania Navierasa S.A. v Prudential Insurance Company (Ikarian Reefer)** (1993) 2 Lloyd's Rep. 68.

154. Secondly, while the court will carefully analyze and assess the evidence in every case, the stakes are obviously higher in clinical negligence cases, where expert evidence will normally prove to be the critical and determining factor. But expert evidence is invariably evidence by proxy, and it is no substitute for firsthand factual evidence. That said, no explanation was ever given as to the failure to call the two other professionals who were present during the birth of TK, the pediatrician and the attending nurse. While the court was provided with some of their notes and left to draw inferences based on professional opinions, it is not substitute for the perspective that could have been brought to this case by their evidence.

Summary of Court's conclusion on the evidence

155. A summary of my findings, on the balance of probabilities, is as follows:

(i) That the defendant attempted operative delivery first with the use of the ventouse (vacuum extractor) and, secondly the *Wrigley's* outlet forceps.
(ii) That the defendant's attempted vacuum delivery failed because of the cup disengaging or pop-offs (not because the device was incapable of providing suction), and that this trauma caused or contributed to the injuries to TK.
(iii) That the defendant was unable to get the forceps to lock because the baby's head was mal-rotated, and that the attempts at doing so caused or contributed to the injuries to TK.
(iv) That TK was trapped in the birth canal for a prolonged period during the operative delivery process and it is more likely than not that he suffered the hypoxic insult during that period.
(v) That the defendant attempted operative delivery when the plaintiff's head was malrotated, and wrongly assessed (or not assessed at all) which led to the inability to deliver the plaintiff even after successive attempts with more than one instrument.
(vi) That it is more probable than not that the CTG machine did indicate abnormal readings during the delivery process.
(vii) That the HIE was most probably caused by mechanical trauma from the injudicious use of the instruments which led to neuro-developmental sequelae including the motor and cognitive disabilities suffered (LGS, cerebral palsy, epilepsy, microcephaly, etc.).
(viii) That the defendant caused these injuries during the delivery process.
(ix) That the plaintiff suffered injury and damages as a result of the defendant's actions, and that these actions did not meet the standards expected of a physician skilled in the field of obstetrics with a significant practice in that area.

F. Damages

156. Having determined the issue of liability in favour of the plaintiff, the Court must now go on to assess damages. The general rule is that the plaintiff would be entitled to all of his damages

(the "all-or-nothing" recovery rule), subject to assessment by the Court and the duty to take reasonable steps to mitigate his loss in relation to expenses already incurred.

157. Inexplicably, the defendant seems to have treated this case as if it were a trial on liability only, and made no submissions in respect of the damages claimed or the quantum. However, the plaintiff set out the heads of claim and quantum of damages in his opening skeleton submissions, which were dated 25 February 2021. Further, at the commencement of trial, counsel for the plaintiff foreshadowed that adjustments would be made to the quantum based on changes to the discount rate in the *Odgen's Tables* (see discussion below). These adjustments were identified in the plaintiff's closing submissions, which were lodged and exchanged a few months before the defendant's closing submissions. I am satisfied, therefore, that the defendant had prior notice of the damages and quantum being claimed.

General principles

158. I was not addressed on the principles that govern the assessment of damages, but they are well established and do not need much by way of elaboration. They were admirably summarized in **Heil v Rankin et al.** [2001] 2 QB 271, by Lord Woolf MR giving the judgment of the UK Court of Appeal as follows [22, 23, 27]:

> "…the aim of an award of damages for personal injuries is to provide compensation. The principle is that 'full compensation' should be provided…this principle of 'full compensation' applies to pecuniary and non-pecuniary damages alike…the compensation must remain fair, reasonable and just. Fair compensation for the injured person. The level must also not result I injustice to the Defendant, and it must not be out of accord with what society as a whole would perceive as being reasonable."

159. The plaintiff claimed damages under the traditional heads for personal injuries: (1) Special Damages; (2) Pain, Suffering and Loss of Amenities ("PLSA"); (3) Future Loss of Earnings ("FLE"); (4) Future Cost of Medical Treatment, Medication & Related Travel Expenses ("Future Medical Treatment"); (5) Future Cost of Nursing Care; and (6) Future Cost of Special Equipment. Added to this was a claim for Pre-Judgment Interest.

160. Represented in tabular form, the damages claimed were as follows:

HEAD OF LOSS	**AMOUNT**
(1) Special Damages	$ 68,148.78
(2) PSLA	$ 550,000.00
(3) Future Loss of Earnings ("FLE")	$1,000,000.00 [$625,000.00]
(4) Future Cost of Medical Treatment & Medication plus associated Travel & Related Expenses	$ 690,619.60 [$401,815.04]
(5) Future Cost of Nursing Care	$1,001,000.00 [$582,400,00]
(6) Future Cost of Special Equipment	$ 129,628.02
(7) Pre-Judgment Interest	$ 123,351.36
TOTAL	**$ 3,562,747.76 [$2,460,226.10]**

161. As will be seen, the original quantum of damages set out in the plaintiff's opening submissions was for a total of $2,460,226.10 (see bracketed figures in the table). The substantial uplift in the updated claim is due to adjustments in the calculation of the future losses, which was said to be explained by the change to the discount rate (rate of investment return) promulgated 15 July 2019 by the Lord Chancellor for England & Wales. The damages were calculated on multipliers linked to the previous rate of 2.5%, and were "revised" to reflect the rate prevailing at the time of trial, which was *minus* 0.25%.

162. Unfortunately, it appears that counsel for the Plaintiff misread the rate as 0.25%, and for that reason alone the calculations of the future losses are erroneous (a point to which I will return). In addition, counsel's calculations were based on the 7th Edition of the Odgen's Tables, which did not include the specific figures for the revised discount rates, and therefore the multipliers were derived using the interpolation approach, which is innately imprecise.

Use of Odgen's Tables

163. It is also perhaps appropriate at this point to say something about the applicability of these tables in this jurisdiction, as counsel for the plaintiff clearly proceeded on the basis that it was appropriate to use them in calculating the relevant multipliers. As indicated, no point was taken by the defendant either as to quantum or methodology. The issue has been considered by the Privy Council in a case on appeal from this jurisdiction (**Cadet's Car Rentals and another v Pinder** [2019] UKPC 4) and it is useful to set out their Lordships observations in some detail.

> "8. In the courts below and on this appeal the parties have been content that, if an award for loss of future income is to be made (as opposed to a *Smith* v *Manchester Corporation* award) it should be assessed on the basis of the Ogden Tables. These actuarial tables are designed to assist in the calculation of lump sum damages for future losses in personal injury and fatal accident cases in the United Kingdom. They provide a multiplier which can be applied to an annual loss in order to produce a capitalized sum, taking into account accelerated receipt, mortality risks and, in relation to claims for loss of earnings and pension, discounts for contingencies other than mortality. In the Supreme Court the Chief Justice did not refer expressly to the Ogden Tables but purported to apply a methodology derived from the Tables. In the Court of Appeal, the President noted that the discount rate in the United Kingdom applied in the Ogden Tables is fixed by the Lord Chancellor pursuant to the Damages Act 1996. (At the date of the trial in these proceedings the discount rate was 2.5%. It was reduced from 2.5% to -0.75% with effect from 20 March 2017.) She considered (at paras 18-19) that the Tables could be a useful guide but cautioned against their wholesale application as if they had the force of law in The Bahamas. She drew attention to the fact that they are based on the yield on Index Linked Government Stock and on the mortality risks and other contingencies relating to the population of the United Kingdom. Similarly, Crane- Scott JA (at paras 91-92) noted that the Ogden Tables were of persuasive authority only in The Bahamas but had, in practice, provided a useful guide to practitioners and judges in arriving at awards for future pecuniary loss.
>
> 9. Neither party to the present appeal has suggested that the use of the Ogden Tables for the quantification of future loss of earnings was inappropriate in this case. Accordingly, the Board, in

> deciding this appeal, will seek guidance from those Tables. The Board notes, however, that the Tables are intended to reflect the particular conditions prevailing in the United Kingdom which are likely to differ considerably from those in The Bahamas. The courts of The Bahamas may, therefore, wish to consider on some future occasion whether it is appropriate to refer to the Ogden Tables for guidance or whether it may be preferable to seek the assistance of actuarial tables designed to reflect the conditions prevailing in The Bahamas. In this regard the Board draws attention to the observations of Lord Kerr in *Scott* v *Attorney General* [2017] UKPC 15 (at paras 25-29) concerning the application in The Bahamas of the United Kingdom Judicial Studies Board Guidelines for the Assessment of General Damages in Personal Injury Cases."

164. Based on these observations, I am fortified in the view that the *Odgen's Table* can be relied on as a starting point and guide to the calculation of multipliers for future losses. I accept that the actuarial data is based on a different jurisdiction (and in this regard it is notable that the discount rates are even different for the UK and Wales, and Northern Ireland and Scotland), and that there are factual differences between the Bahamas and the UK, such as the rate of inflation, and income and other taxes. But in the absence of any actuarial tables or prescribed investment return rates for The Bahamas, these tables provide a useful guide or starting point for determining multipliers, which could then be adjusted based on the individual facts of the case or factors peculiar to this jurisdiction.

(1) Special Damages

165. By paragraph 23 of the Plaintiff's amended SOC, the plaintiff pleaded special damages in the amount of $68,148.78. These related to Past Medical Expenses and Medication, Past Travel & Related Expenses, Past Cost of Nursing Care, Past Cost of Special Equipment, and Miscellaneous Expenses. In the Supplemental Witness Statement of TK Snr, he outlines the various expenses incurred to date and at paragraphs 50 and 52 he summarized the pleaded expenses. The receipts for the plaintiff's special damages are included in the Plaintiff's Supplemental Bundle of Documents.

166. In relation to these expenses, I can find nothing in any of the charges to suggest that the plaintiff was unreasonable in any of the options for medical treatment, travel, mode of transport, accommodation, equipment or anything associated with TK's treatment to suggest that he did not act reasonably to mitigate his loss. For example, the cost of the van to transport TK was listed at just $11,837.00, which clearly does not suggest any extravagance.

167. As indicated, the defendant has not filed anything challenging or questioning any of these expenses, and therefore special damages in the amount of **$68,148.78** are awarded, as claimed.

(2) PSLA

168. In assessing TK's claim for PSLA, counsel referred to the *Judicial College Guidelines* ("JC Guidelines) 12th Edition (formerly the *Judicial Studies Board Guidelines*), for the assessment of

general damages in personal injury cases. TK's injuries were placed within the category of "Very Severe Brain Damage". The guidelines in this regard provide in part as follows:

> "In cases at the top of this bracket the injured person will have a degree of insight. There may be some ability to follow basic commands, recovery of eye opening and return of sleep and waking patterns and postural reflex movement. There will be little, if any, evidence of meaningful response to environment, little or no language function, double incontinence and the need for fulltime nursing care.
> The level of the award within the bracket will be affected by:
>
> (i) the degree of insight;
> (ii) life expectancy;
> (iii) the extent of physical limitations."

169. It was submitted that the range of awards in this category is between £207,250 to £297,000, which converts to roughly B$292,491.75 to B$419,155.85, using the conversion rates then pertaining. In order to arrive at a reasonable PSLA for TK, the plaintiff canvassed some 17 authorities out of UK between the period 1999-2020 (summaries of which were provided in the plaintiff's bundle of authorities). Based on those cases, the plaintiff concluded that PSLA awards for like injuries have consistently been in the range of B$320,849.12 and B$535,784.20. However, it was submitted that TK's physical limitations and cognitive impairment is worse than many of the claimants in those cases, who had at least had some ability to walk with assistance and limited ability to communicate.

170. Additionally, it was submitted that TK has endured numerous related conditions and resultant treatments, including surgery to his leg and dental surgery. Moreover, his epilepsy is described as intractable and virtually uncontrollable. It is therefore suggested that TK's condition is most similar to that seen in **Jones v Avon, Gloucester & Wiltshire Strategic Health Authority** (21 July 2009) [*Kemp & Kemp* summary], where the PSLA award was £250,000.00 in 2009, which converted amounts to B$535,784.20. In **Jones**, the claimant suffered a severe brain injury due to a delay in delivery by Caesarean section. She suffered severe neurological disability, spastic quadraparesis with choreoathetosis and anarthria as a result, and was permanently disabled. Her life expectancy was reduced to about 50 years. Based on the facts and circumstances, counsel suggests a reasonable PSLA award for TK would be B$550,000.00.

Court's discussion and conclusions

171. The award of damages for PSLA requires the court to assess a figure it thinks reasonable in all the circumstances (see **Attorney General of St. Helena v AB** [2020] UKPC 1 at [16], **Scott v The Attorney General et. al.** [2017] UKPC 15), **Darren Rutherford v. Commissioner of Police** [2012/CLE/gen/00414]. As with all damages, the aim is to compensate the claimant, but to do so in a way that is fair and reasonable. In **Scott**, the Privy Council said:

"17. General damages must be compensatory. They must be fair in the sense of being fair for the claimant to receive and fair for the defendant to be required to pay—*Armsworth v South Eastern Railway Co* (2) (1847) 11 Jur at p. 760. But an award of general damages should not aspire to be 'perfect compensation' (however that might be conceived) – *Rowley v London and North Western Railway Co.* (3) (1873) LR 8 Ex at p. 231. It has been suggested that full, as opposed to perfect, compensation should be awarded—*Livingston v Rawyards Coal Co*. (1880) 5 App Cas 25, 39 per Lord Blackburn."

172. But all of the cases speak with one voice in indicating that the process of assessing such a figure is not an exact science and very much an impressionistic one for the Court. The Privy Council adverted to this difficulty in **Scott** as follows:

"19. Accepting and following this approach, the Court of Appeal in England and Wales in *Heil v Rankin* [2000] EWCA Civ 84 at para.23 said:

> 'There is no simple formula for converting the pain and suffering, the loss of function, the loss of amenity and disability which an injured person has sustained, into monetary terms. And process of conversion must be artificial.'

20. In reaching that conclusion, the court drew on the statement of Lord Pearce in *H West & Sons Ltd. v Shepherd* [1964] AC 326, 364 to the effect that the court had to 'perform the difficult and artificial task of converting into monetary damages the physical injury and deprivation and pain to give judgment for what it considers to be a reasonable sum'.

21. The arbitrary nature of that exercise was also recognized in Heeralall v Hack Bros (1977) 25 WIR 119, where Haynes CJ said that: 'the judicial exercise of measuring in money such things as pain and suffering or the impairment of capacity to lead life to the full involves dealing in incommensurables."

JC Guidelines

173. In many common law jurisdictions, as here, the starting point (and sometimes the ending point) is to assess damages by reference to the JC Guidelines. The appropriateness of utilizing that approach was dealt with in **Scott**, a case on appeal from this jurisdiction. There, the Privy Council rejected the argument that an automatic uplift to those figures should be applied as a matter of principle based on, *inter alia*, costs of living indices, but accepted that they could be relied on if thought appropriate. The Privy Council concluded that:

"[The JSB] guidelines can provide…an insight into the relationship between, and the comparative levels of compensation appropriate to different types of injury. Subject to that, the local courts remain best placed to judge how changes in society can be properly catered for. Guidelines from different jurisdictions can provide insight but they cannot substitute for the Bahamian court's own estimation of what levels of compensation are appropriate for their own jurisdiction. It need hardly be said, therefore, that a slavish adherence to the JSB guidelines, without regard to the requirements of Bahamian society, is not appropriate. But this does not mean that coincidence between awards must be necessarily condemned. If the JSB guidelines are found to be consonant with the

> reasonable requirements and expectations of Bahamians, so be it. In such circumstances, there would be no question of the English JSB guidelines imposing an alien standard on awards in the Bahamas. On the contrary, an award of damages on that basis which happened to be in line with English guidelines would do no more than reflect the alignment of the aspirations and demands of both countries at the time that awards were made for specific types of injury."

174. The dominant approach to making an award for PSLA where multiple injuries are involved, and that which seems to be sanctioned by the JC Guidelines, is for the court to form an "overall impression" of the impact of the injuries in coming up with a monetary figure. This approach was endorsed by the Court of Appeal in **Brown v Woodall** [1995] PIQR Q36. The trial judge had arrived at a figure for pain and suffering by adding up the various head of injuries. Sir John May stated (at Q39):

> "I respectfully agree that the learned judge's approach of adding up the various figures for the awards that she thought appropriate and the various different injuries could well lead one to an award which, compared with other awards, is in the aggregate larger than is reasonable.
> In this type of case, in which there are a number of separate injuries, all adding up to one composite effect upon a plaintiff, it is necessary for a learned judge, no doubt having considered the various injuries and fixed a particular figure as reasonable compensation for each, to stand back and have a look at what should be the aggregate figure and ask if it is reasonable compensation for the totality of the injury to the plaintiff or whether it would in the aggregate be larger than was reasonable?
> I think that towards the end of a very careful and detailed judgment, the learned judge did err in failing to stand back and look at the case as a whole. Subject to that comment, we have been shown various guidelines from the report of the Judicial Studies Board and comparables from *Kemp on Personal Injury Damages*: all of them very valuable, but to be treated merely as signposts to what an appropriate order for damages in a particular case should be. One case is never precisely the same as another and one must use one's experience, together with comparables such as I have mentioned, to enable one to arrive at what is reasonable compensation for the plaintiff's loss."

175. In the instant case, the plaintiff suffered severe brain damage, which has resulted in a widespread sequelae of neurological and physical injuries, including epileptic seizures secondary to West Syndrome and Myoclonic Encephalopathy of infancy, LGS, and Microcephaly. He is very severely compromised neurologically and physically, including mental retardation, quadriparesis and inability to communicate. There is no dispute that he is severely disabled (described as "*100% disabled with no hope for any significant change*" and "*permanent*" by Dr. Grossman in 2015), and that he will remain dependent on others for the rest of his life for basic living activities.

176. As indicated, the top bracket of awards for severe brain injuries suggested by the JC Guidelines is $B419,155.85, and the top award for PSLA for a similar case, based on a comparative analysis of some 17 cases spanning a 20-year period was $B535,784.20. It was not indicated whether the suggested award of $550,000.00 represents an increase by way of uplift, or an increase to take account of the fact that TK's injuries are even more widespread and serious than in the comparative cases.

177. As indicated, counsel for the defendant did not deal with the issue of damages, and therefore the Court must ensure that any awards are fair to both plaintiff and the defendant. It is an undeniable fact that there is no body of case law either in this jurisdiction or in similar jurisdictions (e.g., Bermuda, Cayman Islands) against which such an award can be measured. It is therefore not only expected, but quite appropriate that the JC Guidelines were referenced as a useful source of comparison, with any modifications thought appropriate to the instant case. As the Privy Council noted in **Scott**, those guidelines are not to be 'slavishly' applied. At the end of the day, the damages have to be adequate for the needs and socio-economic context of the society under consideration and reasonable.

178. For my part, I can discern no error of principle in the approach of counsel for the plaintiff. Counsel was right to say that the injuries to TK were more severe than those in many of the comparative cases. Further, it is clear that TK suffers from severe and what has been termed "intractable epilepsy", an illness which by itself attracts significant award under the JSB Guidelines. In addition, he suffers from quadripelegia ("tetraplegia"), the most serious form of paralysis, which itself attracts awards near the $500,000.00 ceiling. If compensation for each of those various injuries had been made and then aggregated, I have no doubt that the resulting award would have been well in excess of what is claimed. Furthermore, Dr. Davis testified that because of advanced medical care, TK could live "*well into the 60's*", and counsel suggested that a reasonable life expectancy would be 65. Therefore, he will experience a greater degree of suffering and loss of amenity than the claimant in **Jones**, whose life expectancy was reduced to 50 years. Of course some discount must be made for the fact that TK is likely to have little insight into his condition.

179. Having regard to all the circumstances of this case, and accepting TK's life expectancy as 65 years, I find that the global figure of B$550,000.00 submitted by counsel, which is benchmarked both against the JC Guidelines and a cross-section of like cases from the UK, is not wholly unreasonable having regard to the extensive and permanent injuries to the plaintiff. I will, however, deduct $50,000.00 because of the plaintiff's lack of insight into his condition. I am also of the view that such a figure is also not at all out of sync with the expectations of a society such as The Bahamas, where the cost of living is known to be high and having regard to other socio-economic indicia. I will therefore allow **$500,000.00** for pain, suffering and loss of amenity.

(3) Loss of Earnings

180. The plaintiff submits that it is indisputable that given TK's 100% percent disablement, which is permanent, he will never be capable of gainful employment and he is therefore entitled to loss of earnings. As said in **HS Lancashire Teaching Hospital v NHS Trust** [2015] EWHC 1376 (QB):

> "There is no dispute about the recoverability of loss of earnings. HS will never be capable of any work. Had she been treated properly by the Defendant, she would have been able to pursue whatever occupation or career for which her intellectual and other capabilities suited her."

181. The rationale for the award of loss of earnings was made clear in the *locus classicus* of **Croke v Wiseman** [1981] 3 All ER 852, which was referenced by the UK Court of Appeal in **Cassell and Another v Riverside Health Authority (formerly Hammersmith & Fulham Health Authority)** [1992] Lexis Citation 3466, where Lord Griffith stated as follows:

> "When one is considering the case of a gravely injured child who is going to live for many years into adult life, very different considerations apply. There are compelling reasons why a sum of money should be awarded for his future loss of earnings. The money will be required to care for him. Take the present case; the cost of future nursing care has been assessed upon the basis of nurses coming into care for him for party of the day and night. It is not a case where damage have been awarded which will provide a sufficient sum for him to go into a residential home and be cared for at all times. Damages awarded for his future loss of earnings will in the future be available to provide a home for him and to feed him and provided for such extra comforts as he can appreciate. It cannot be assumed that this parents will remain able to house, feed and care for him throughout the rest of his life. If, of course, damages had been awarded upon the basis of the full cost of residential cares so that they include the cost of roof and board, any award for future loss of earnings will be small because there will be a very large overlap between the two heads of damage. The plaintiff must not be awarded his future living expense twice over; this would be unfair to the defendants."

182. Counsel for the plaintiff points out that while TK makes a claim for nursing care, he makes no claim for the cost of full residential care. Thus, it is appropriate for the Court to compensate him for loss of earnings so that all of his other expenses, housing, food, clothing and the like can be met.

183. It is appreciated that assessing the prospects and possible earning capacity of someone who has never worked, as the case with a child who is seriously injured at birth, is a general exercise which involves making a single assessment based on projecting average earnings across the entire working life of the plaintiff, with any necessary adjustments for contingencies (**AH v Powers Local Health Board** [2007] EWHC 2996 (QB)). By and large, the method adopted by the common law for assessing loss of earnings (as for most future loss), is to use the multiplicand/multiplier approach. In determining the multiplicand (basically the plaintiff's projected annual net loss), the courts have utilized various approaches, such as using the income of any siblings and parents as a guide (**Cassell**), or using the Annual Survey for Hours and Earnings ("ASHE") (as it is called in the United Kingdom) to give a guide to the various levels of earnings for different types of occupation (**HS Lancashire Teaching Hospital**). The multiplicand is then multiplied by the multiplier, which is the projected number of working years. In some cases, the Court has taken a broad-brush approach and awarded a round figure for loss of future earnings (**AH v Powys Local Health Board)**, where the court awarded £300,000 to an injured child as loss of future earnings.

184. In the present case, the plaintiff commends the use of the multiplier/multiplicand method of assessment, and places reliance on statistical and economic data to arrive at the multiplicand. These are the Labour Force Survey of May 2019 (none was produced for 2020 because of the Covid pandemic) and prior surveys on Male Wage Surveys conducted by the Department of Statistics. For example, according to the Labour Force & Household Income Survey for 2019, the average household income for New Providence (where TK resides) was $48,646.00. and by deduction the average adult income for a single adult can be taken as $24,323.00.

185. Based on a report from the Department of Statistics, the average annual wage for males in New Providence during 2011 was $26,276.00. Having regard to the 2019 household income data and the average male wage survey (2011), counsel submits that an appropriate multiplicand would be $25,000, which is between the two figures. For the multiplier, counsel suggested the use of the actuarial tables rather than the impressionistic approach, using 65 as a life expectancy. In this regard, counsel resorted to Odgen's Table 28, giving "*Multipliers for pecuniary loss for term certain*", and utilized the term certain of 47 years (the period between an assumed working life commencing at 18 and ending at 65, TK's life expectancy) to yield a multiplier which she interpolated as 44.45 (based incorrectly on the discount of 0.25%). Based on this, counsel suggested a reasonable revised multiplier as 40: $25,000 x 40 = $1,000.000.00.

186. However, the explanatory notes in the current *Odgens Tables* for calculating multipliers for loss of earnings for persons of younger ages provides as follows (para. 38):

> "In order to determine the multiplier for loss of earnings for someone who has not yet started work, it is first necessary to determine an assumed age at which the claimant would have commenced work and to find the appropriate multiplier for that age from Tables 13 to 18, according to the retirement age. This multiplier should then be multiplied by the discount factor from Table 35 which corresponds to the prevailing discount rate in the relevant jurisdiction and the period from the date of the trial to the date on which it is assumed that the claimant would have started to work."

187. Following this approach, and using Table 9 (*Multipliers for loss of earning to pension to 65*) (which is the expected life expectancy of TK), and assuming a working age commencing at 18, the multiplier would be 48.77, using a -0.25% discount rate. TK was 8 at trial, so the deferment period for the discounting factor using Table No. 35 would be 10 years (18 year working age), which yields a rate of 1.0253. Multiplying the figure of 48.77 by 1.0243, results in a multiplier of 50. However, as Tables 1-34 of the Odgen's tables only make provision for mortality risk and do not take account of any of the other vicissitudes of life (such as the fact that the plaintiff may have had interruptions in employment due to periods of ill-health or other reasons), I would discount this figure by 5 to end up with an adjusted multiplier of 45. Applying the multiplier of 45 to the multiplicand ($25,000) the award for future loss of earnings is therefore assessed at $**1,125,000.00**.

188. The plaintiff contends further that even if the Court were to take a broad-brushed approach to assessing future loss earnings, TK if gainfully employed would have been responsible for food, clothing, housing and other expenses over a period of 47 years, and therefore the sum of $

1,000,000.00 was not unreasonable. I agree, and the figure that I have arrived at is sufficiently close to what was suggested.

(4) Future Cost of Medical Treatment & Medication plus Future Travel & Related Expenses (Future Medical Cost)

189. The evidence led in this case demonstrates that TK was shortly after birth referred by Dr. Edwin Demerrite, apparently the only local pediatric neurologist, to Miami Children's Hospital for treatment and management. It is no secret that facilities for advanced and specialist neurological care are not available locally. Thus, these future medical treatment costs will also include the costs of travel and other related expenses. The evidence led before the Court is that TK is required to visit his neurologist twice per year for the continued management and control of his epilepsy. The multiplicand for these expenses was said to be $12,556.72, derived as follows:

Expense	**Annual Cost**	**Reference**
Neurologist Visits $ EEG's	$1,000.00. (averaging $500.00 per visit)	Vol. 2. 2, p. 347-362 of Bundle.
Cost of Medication	Onfi, Keppra and Fenfleuromine $2,400.00 ($200.00 per month).	Vol. 2, p. 254 to 287 of Bundle.
Travel & Related Expenses	$9,156.72 ($4,578.36 per trip)	Para. 92 (Cost of most recent visit in Jan. 2020).
TOTAL	**$12,556.72**	

190. Using Odgen's Table No. 1, namely "*Multipliers for pecuniary loss of life* (males)", TK was 8 at the time of trial, and counsel submitted that the multiplier was between 55.31 and 66.65, the average of which is 60.98. As Table 1 makes adjustments for mortality, but not the other vicissitudes of life, counsel discounted this multiplier to 55. Applying this to the multiplicand, the award for Future Cost of Medical Treatment & Medication Plus Future Travel and Related Expenses would total $690,619.60. (The Court notes that even using the 0.25% discount rate, the actual figures for the multiplier were 65.90 to 80.55, and the mean would have been *73.25*, as opposed to 60.98.)

191. As pointed out, however, this was mistakenly calculated using a discount of 0.25%. Using the revised *Odgen's Table* and the return rate of *minus* 0.25%, the multiplier would be 88.40. As noted by counsel, these tables make adjustments for UK mortality rates (based on 2018 projections, see Section A, para. "d" of Explanatory Notes), and do not make any adjustments for other vicissitudes. Life expectancy at birth for males in the UK in 2018 was 82.6 years. As provided in the Explanatory Notes, (Section A, para. 9):

> "If it is determined that the claimant's life expectancy is atypical and that the standard average life expectancy data do not apply, the court starts with a clean sheet and a bespoke calculation needs to be applied."

192. It is known that TK's life expectancy is reduced to around 65 years, therefore it would be appropriate to make a significant adjustment to the suggested multiplier to allow for this and other vicissitudes. Although the multiplier suggested by counsel was based on erroneous calculations, I accept that **55** is a reasonable multiplier to use (reduced from the corrected multiplier of 88.40) having regard to the considerations mentioned. I therefore assess Future Medical Costs in the sum of **$690, 619.00** ($12,556.72 x 55).

(5) Future cost of nursing care

193. The next head of damages claimed is for nursing care, and the evidence clearly demonstrates that TK needs to be cared for at all times. He is completely unable to fend for himself.

194. Counsel explained that so far the amount claimed for past care has been low because TK has been cared for by his grandmother on an almost gratuitous basis, despite an initial intention to charge $350.00 per week. However, the case law is clear that a defendant is not entitled to insist that future cost of care be assessed on any basis other than a commercial one (**Manna v Central Manchester**). There the Court said as follows:

> "The authorities establish that a tortfeasor cannot avoid payment for commercial care in reliance upon the fact that a family member has, in the past, demonstrated by their devotion their ability to care for a claimant. That family member is not obliged to act as a carer or case manager and is entitled to be freed from the need for constant supervision."

195. Consequently, TK's future cost of care is claimed at the rate of $350.00 per week, which yields a multiplicand of $18,200.00. Applying the multiplier of 55 (see above) to the multiplicand, the award would be assessed at **$1,001,000.00** ($18,200.00 x 55).

(6) Future Cost of Special Equipment

196. The last head of damage claimed in the costs of special medical equipment, which is needed for TK's assisted living. These were set out in tabular form at paragraph 100 of the opening submissions, and calculated on the basis that the equipment would need replacing every 10 years.

Description	**Cost**	**Reference in Bundle**
Van	$11,837.41	611, 614, 616, 617, 626-633
ABC Prostethics and Orthotics	$388.17	341-344
Hanger Clinic	$553.55	391
Orthotics	$66.45	391
Posterior Gait Trainer	$716.89	345
Wheel Chair	$2,308.61	346
Chest Holder For Gait Trainer	$269.92	TBP
Gymnastics Mat	$67.53	378
Bed Frame and Memory Foam Mattress	$175.00	
Bed Lining Sheet	$14.99	375

Nap UP Child Seat Head Support	$39.90	TBP
Mattress Genie Bed Lift System	$1152.68	374
Harness	$28.99	375
Bath Tub Chair	$39.99	376
Tumble Form Feeder	$356.27	545
Tranquility disposable briefs (Junior)y	~~$58.28~~	390
Tranquility disposable briefs (XS)	~~$56.85~~	389
	$14, 636.39	
	$14, 521.26	

197. The totals claimed for special equipment was broken down as follows: $87,127.56, being the replacement costs of the equipment less the costs of disposable diapers ($14,521.26) every 10 years; and the sum of $38,471.14 (which represents the annual cost of diapers at $699.48 x the revised multiplier of 55). Thus, the total award under this head would $38,471.14 + $87, 127.56 + $14,521.26 = **$140, 119.96**.

CONCLUSION AND DISPOSITION

198. I summarize my award of damages and pre-judgment interest as follows:

HEAD OF LOSS		**AMOUNT**
(1)	Special Damages	$ 68,148.78
(2)	PSLA	$ 500,000.00
(3)	Future Loss of Earnings	$1,125,000.00
(4)	Future Cost of Medical Treatment & Medication plus associated Travel & Related Expenses	$ 690,619.60
(5)	Future Cost of Nursing Care	$1,001,000.00
(6)	Future Cost of Special Equipment	$ 140,119.96
(7)	Pre-Judgment Interest (@5% on Special Damages and @2% on PSLA)	$ 123,351.36
TOTAL		**$ 3,648,239.70**

199. Post judgment interest is to run on the award at the prevailing rate pursuant to the *Civil Procedure (Award of Interest) Act, 1992* and *2008 Rules*.

200. The defendant is to pay the plaintiff's costs of this action, to be taxed if not agreed.

201. I invite the parties to draft a Minute of Order reflecting the substance of this judgment, and I thank both counsel and all the expert witnesses for their assistance to the Court.

17 July 2025

Klein, J.