

CITATION: Rathan et al. v. Scheufler et al., 2023 ONSC 3232
COURT FILE NO.: CV-15-599-0000
DATE: 2023 05 31

ONTARIO
SUPERIOR COURT OF JUSTICE

B E T W E E N :

SANKAVI RATHAN and RAGAVI RATHAN, infants under the age of 18 years by their Litigation Guardian, VASANTHY RATHAN, RATHAN BALASINGAM and VASANTHY RATHAN, personally

Plaintiffs

- and -

PETER SCHEUFLER, R. WILLIAMS, MELANIE PAQUETTE, ZOFIA MROZOWSKI, JANE DOE #1, JANE DOE #2, and TRILLIUM HEALTH PARTNERS (MISSISSAUGA HOSPITAL)

Defendants

)
)
) *Andrea Girones, Lorenzo Girones*
) *and Erin Durant, for the Plaintiffs*
)
)
)

)
)
) *Andrea Plumb, Sarah Martens,*
) *Natalie Carrothers, and Frank*
) *McLaughlin, for the Defendant Peter*
) *Scheufler*
)
)

) **HEARD:** January 10-14,18-21, 24-
) 28 and 31; February 1-4,7-11,14-18,
) 22, 23, 25 and 28; March 1-4, and
) March 7-10, 14-18; April 28 and 29;
) and May 10, 2022 at Brampton, by
) video-conference

REASONS FOR JUDGMENT

Emery J.

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INTRODUCTION

[1] Sankavi Rathan was born at 2317 hours (11:17 p.m.) on February 27, 2009 at the Mississauga Hospital in Mississauga, Ontario. Sankavi was delivered by Dr. Peter Scheufler, an obstetrician. It was a birth not without complications.

[2] Sankavi's mother, Vasanthi Rathan, had carried Sankavi to full term for a gestation period of just over 40 weeks. Sankavi was a large baby when she was born. During the birthing process, her right shoulder had become lodged in the uterus behind her mother's symphysis pubis, or pubic bone. This is a condition known as shoulder dystocia. In the course of her delivery, Sankavi's nerve roots at C6, C7, C8 and T1 were torn from the right side of her spinal cord and a fifth nerve root, C5, was traumatized.

[3] Sankavi suffered what is known as a *brachial plexus injury* ("BPI"), or *neonatal brachial plexus injury*. As a result of this injury, Sankavi's right arm never developed fully. There is no dispute that this injury is permanent. She will always have limited use of her right shoulder, arm and hand.

[4] Sankavi, her parents, Vasanthi Rathan and Rathan Balasingam, and her older sister, Ragavi, have brought this action against Dr. Scheufler. Sankavi's parents seek damages on her behalf to compensate her for the injury she sustained at birth and its impact on her life. They have brought this action against Dr. Scheufler alleging

professional negligence against him for falling below the standard of care expected of an obstetrician in similar circumstances, and for causing Sankavi's *BPI*.

[5] Sankavi and her family allege that her *BPI* was caused by Dr. Scheufler when he pulled on her head, known as traction, in the wrong direction at or before the shoulder dystocia event. The force an obstetrician applies is known as an exogenous force, coming from any external person or source. This is distinct from an endogenous force, which is a propulsive or expulsion force applied to a baby within the mother by uterine contractions and maternal pushing. Dr. Scheufler takes the position that Sankavi's injuries were caused by endogenous forces, alone or together with his guiding traction.

[6] All damages claimed by Sankavi and members of the Rathan family are at issue. Vasanthy and Rathan seek damages against Dr. Scheufler for themselves and Ragavi for the services they have provided and for the loss of Sankavi's guidance, care and companionship under s. 61(2)(e) of the *Family Law Act* ("*FLA*"). The only amount for damages admitted, subject to a finding of liability, is the subrogated claim of the Ontario Health Insurance Plan in the amount of \$90,000.

[7] Throughout this decision, I propose to refer to Sankavi and members of her immediate family by their first names to avoid repetition, and with no disrespect intended. Proceeding in this manner should in no way be taken as displaying a familiarity with members of the Rathan family that is not extended to Dr. Scheufler.

Nor should I be seen as conferring a degree of deference to Dr. Scheufler when I refer to him by his professional designation. I also propose to refer to the positions or submissions made by the parties through their counsel as coming from the parties themselves, even though those positions and submissions are made on their behalf.

[8] Before I begin with a review of the facts, I would like to take this opportunity to commend all counsel for the diligence they have shown in the advancement of their cases. This case was initially intended to be heard by a jury. However, between the time the jury notice was served and the time of trial, the COVID-19 pandemic had gripped the world and caused the legal system in Ontario to adapt. For safety reasons related to the prevention of COVID-19, juries were rarely convened between March 2020 and January 2022. Technology developed quickly in the circumstances of the day and found its place in the presentation of legal cases to facilitate access to justice.

[9] It is within this context that the cooperation of counsel in this action, and the use of technology, has abounded. In a series of case management endorsements between October and December 2021, counsel agreed to a trial by judge alone, and then a trial by Zoom. With the continued cooperation of counsel, further trial management issues were resolved, with others put over for adjudication by motion. My reasons for making certain rulings at trial, including two motions that were brought to vary case management orders made by Justice Baltman in her endorsement dated October 6, 2021, will be expanded upon in a separate set of rulings.

[10] When this trial commenced, CaseLines was not yet as widely embraced as it is today. To manage documents and to post them for universal access, counsel cooperated in the use of a OneDrive platform. This platform enabled the parties and the court to navigate proposed materials that were tendered as exhibits. The OneDrive platform also allowed for the upload of reports, exhibits and transcripts to reflect the evolving record, as well as submissions and other materials suitable for service and sharing. All counsel in this case exhibited a high degree of cooperation to effectively employ this technology during the trial. The cooperation of counsel assisted the court throughout and embodied the professionalism that resonates with the finest traditions of the bar.

BACKGROUND

[11] There is no dispute that Sankavi suffered a serious and permanent injury to her *brachial plexus* when she was born. The following determinations are all subject to the facts as the court may find them, or as the parties may agree: the standard of care expected of Dr. Scheufler in the circumstances, whether any alleged breach of that standard of care caused Sankavi's injury, and if so, what damages the court should award to the plaintiffs for compensation. First, I will review the facts the parties have agreed upon in the case.

Agreed Facts

[12] Medical terminology, and acronyms for professional associations and for other references often pervade any case involving claims of medical negligence. The parties filed a Glossary of Medical Terms they have agreed upon that are attached as Appendix A to these reasons¹ I will use those terms as they are defined in that Glossary in this decision.

[13] The parties have agreed on the following facts:

1. Vasanthi Rathan was born on April 5, 1976. She is the mother of Sankavi, who was born on February 27, 2009. At the time of Sankavi's birth, Vasanthi was 32 years old.
2. Sankavi was born at the Mississauga Hospital. The named defendant, Trillium Health Partners, covers three Hospitals, namely the Mississauga Hospital, the Credit Valley Hospital and the Queensway Health Centre. All of the defendants, with the exception of Dr. Peter Scheufler, have been let out of this action.
3. This was Vasanthi's second pregnancy. Her first pregnancy resulted in the birth of her daughter, Ragavi, on December 26, 2005. During that pregnancy, Vasanthi was diagnosed with gestational diabetes, but it was under control.

4. Ragavi was delivered at 40 weeks plus 1 day gestation with the help of a vacuum, and weighed 7 lbs, 10.6 oz. (3,477 grams). A vacuum is a soft cup with a handle and a vacuum pump which is applied to the baby's head to help guide the baby out of the birth canal during a contraction while the mother pushes.
5. Vasanthy's due date for Sankavi was February 19 or 20, 2009. On February 27, 2009, Vasanthy attended at the Mississauga Hospital at 11:38 a.m., to have blood work done prior to being admitted. At that time, she was approximately one week overdue, and she attended at the Mississauga Hospital for induction of labour.
6. Once there, at 12:45 p.m., she saw Dr. Scheufler, who inserted Prostaglandin gel into her cervix to ripen the cervix.
7. At 4:45 p.m., external electronic fetal monitoring was applied (this is a belt that goes around the mother's abdomen to keep track of the heart rate of the baby). A vaginal exam was performed on Vasanthy by Dr. Williams.
8. At 5:50 p.m., Vasanthy's water broke spontaneously.
9. At 9:00 p.m., the Nurses' Notes indicate that Dr. Scheufler was notified about Vasanthy's progress of labour and the presence of variable

decelerations in the baby's heart rate, and that he "will come to reassess after he finished C/S".

10. At 9:40 p.m., Vasanthi's cervix was fully dilated.
11. At 10:20 p.m., Dr. Scheufler attended to reassess Vasanthi. The interdisciplinary progress notes indicate that the baby was noted to be in an occiput posterior position (face up), and that Dr. Scheufler, attempted to turn the baby.
12. At 11:04 p.m., Dr. Scheufler came back to assess Vasanthi.
13. Sankavi was delivered at 11:17 p.m. and weighed 10 lbs, 12.5 oz. (4,891 grams).
14. The Apgar scores of Sankavi were 3 at 1 minute, 7 at 5 minutes, and 8 at 10 minutes of life.
15. On April 29, 2009, Sankavi was seen by Dr. Howard Clarke, Plastic Surgeon, at the Hospital for Sick Children ("HSC"). A recommendation was made for surgical intervention at that time.
16. On May 7, 2009, Sankavi underwent a myelogram at HSC. Results showed total or subtotal avulsions at the C6-7-8 and T1 levels.

17. On June 11, 2009, Sankavi was admitted to HSC for a right *brachial plexus* reconstruction by Dr. Howard Clarke. She was discharged from the Hospital for Sick Children on June 15, 2009.
18. Sankavi underwent a second surgery (tenodesis of the right wrist), as a result of having a weak extension of her right wrist which follows a *brachial plexus injury*.

Additional facts around Sankavi's birth

[14] There are additional facts that are generally uncontroversial, including the times given for Sankavi's birth from the Record of Operation (the "RO", sometimes referred to in these reasons as the "delivery notes") dictated later that night by Dr. Scheufler.

[15] Dr. Ruthanne Williams, a resident who worked with Dr. Scheufler, assessed Vasanthi shortly after she was admitted to the hospital. Vasanthi's cervix was dilated 7 to 8 centimetres, and the fetal "spines" by which the progress of the baby's forward motion through the uterus is measured, was at -1. At 2140 hours (9:40 p.m.), Vasanthi was fully dilated and commenced pushing.

[16] At 2220 hours (10:20 p.m.), Dr. Scheufler attended and attempted to turn the baby from a left occiput posterior position to a left occiput anterior position. He

attempted to turn the baby to make the delivery less difficult. He was not successful in turning the baby in utero.

[17] Dr. Scheufler assessed Vasanthy at 2304 hours (11:04 p.m.). She had been pushing to have the baby and she was exhausted. She requested assistance with the delivery at this time.

[18] Vasanthy had given birth to her first child, Ragavi, two years before, with a vacuum assisted delivery. With her consent, Dr. Scheufler applied a Kiwi vacuum to Sankavi's head at 2312 hours (11:12 p.m.). The baby's head was delivered at approximately 2314 to 2315 hours (11:14 – 11:15 p.m.). It was at this time that shoulder dystocia was identified, and a "Code" was called for greater assistance to the delivery room.

[19] After a series of delivery related maneuvers, Sankavi was delivered at 2317 hours (11:17 p.m.). The time between the delivery of her head from the opening of the mother's cervix and the delivery of the rest of her body, known as the head to body interval, was approximately two to three minutes.

[20] The notes written by a nurse present in the delivery room indicated that Sankavi was floppy and clinically depressed at birth. Her Apgar score, by which a newborn's health is assessed after delivery, was low at 3 (out of 10) at 1 minute of life. The nurses notes show that Sankavi's heart rate was low and that she did not take her first spontaneous breath until the four-minute mark. Sankavi required

resuscitation, which included assistance with breathing. Her Apgar score improved with time, reaching 7 at five minutes and 8 at ten minutes of life.

[21] Sankavi was subsequently admitted to the special care nursery at the Mississauga Hospital and remained there for several weeks. On April 8, 2009, she was transferred to HSC. She remained at HSC until April 21, 2009 for problems unrelated to her *brachial plexus injury*, which included problems associated with feeding. While at HSC, Sankavi was tested on numerous occasions to rule out any brain injury that may have occurred from lack of oxygen during her delivery associated with the shoulder dystocia.

[22] Dr. Howard Clarke, a pediatric surgeon and the Head of the Brachial Plexus Clinic at HSC, first saw Sankavi on April 29, 2009. At Dr. Clarke's direction, a myelogram was performed on Sankavi at HSC on May 7, 2009. The results of that myelogram showed that Sankavi had suffered total or subtotal avulsions at the C6, C7, C8 and T1 nerve roots at birth. She also suffered a neuroma to her C5 nerve root, resulting in scar tissue forming.

[23] On June 11, 2009, Dr. Clarke performed surgery on Sankavi when she was four months old to attempt a partial reconstruction of her right *brachial plexus*. The surgery was performed to reconstruct the C5 where the neuroma had occurred to restore the electrical signal through that nerve in order to stimulate the growth of fibres which might make the right hand responsive.

[24] As a result of that surgery, Dr. Clarke was successful in restoring some movement to Sankavi's right arm, and to giving her some flexibility in her hand. During surgery, Dr. Clarke harvested certain nerve material from the back of Sankavi's legs to implant into her right *brachial plexus*. This extraction of nerve material and the implanting of it in Sankavi's right torso and neck left significant scarring at each of those sites. This surgery could not make use of the nerve roots avulsed at C6 to T1.

[25] On March 6, 2014, Dr. Clarke performed a second surgery on Sankavi's right wrist. This surgical procedure, known as a "tenodesis" was performed to transfer a tendon so that it might reattach itself to improve the extension of the wrist.

[26] Sankavi has attended the Brachial Plexus Clinic for regular check-ups and assessment since surgery. On April 24, 2019, Sankavi was seen by Ms. Karen Klar, a physiotherapist on staff at the Brachial Plexus Clinic. Sankavi was also seen by Ms. Klar, Dr. Clarke, and Emily Ho, an occupational therapist at the Brachial Plexus Clinic on October 16, 2019. She was seen again by the same team on November 11, 2020.

LIABILITY

[27] The two questions on which liability turn are first, whether Dr. Peter Scheufler fell below the standard of care expected of him as an obstetrician in Mississauga, Ontario in 2009 when faced with similar circumstances in the case of managing Sankavi's delivery; and second, the cause of her injury. To answer both

questions factually and to meet the legal test, the plaintiffs submit that the court must determine what in fact happened in the delivery room that night.

Issues for determination of liability

[28] The trial proceeded for ten weeks, with both claims that Dr. Scheufler breached the standard of care he owed to Sankavi and that this breach caused the injury and loss. In particular, the liability issues are as follows:

1. Did Dr. Scheufler fall below the standard of care in his management of the shoulder dystocia emergency and his delivery of Sankavi?
2. If Dr. Scheufler breached the standard of care expected from him, did his breach cause Sankavi's permanent *BPI*?

Witnesses called on liability

[29] The plaintiffs allege that Dr. Scheufler applied greater than gentle downward traction to Sankavi's head after he had identified the shoulder dystocia. They claim that this traction caused Sankavi's *brachial plexus* to stretch between the head and her anterior (right) shoulder, resulting in the permanent injury to nerve roots at C5 to T1. The plaintiffs allege that Dr. Scheufler fell below the standard of care required of him as an obstetrician in similar circumstances, and that this breach caused Sankavi's permanent injuries.

[30] Dr. Scheufler takes the position that he met the standard of care expected of him. He states that he used gentle axial traction, where he held her head in his hands, and gently pulled in a direction aligned with her spine. Dr. Scheufler further takes the position that Sankavi's *brachial plexus injuries* were not caused by any exogenous source. Instead, he maintains that the shoulder dystocia and resultant *BPI* occurred by endogenous forces within the mother by propulsion of the baby against the symphysis pubic due to maternal contractions and her pushing efforts.

[31] Alternatively, Dr. Scheufler takes the position that injury occurred as a result of a combination of both exogenous and endogenous forces together. Dr. Scheufler, in the delivery notes he dictated, briefly describes applying gentle traction and following proper maneuvers after encountering shoulder dystocia to finally deliver Sankavi's shoulders and body.

[32] Both Vasanthi and Rathan gave testimony as to their recollection of Sankavi's birth, as Rathan was also in the delivery room when Sankavi was born. Vasanthi remembers little about the birth as she was admittedly exhausted after enduring the second stage of labour with contractions for over one hour and twenty minutes. She recalls asking Dr. Scheufler for assistance, and agreeing to a vacuum to assist with the delivery.

[33] Rathan testified that he remembers his wife on the hospital bed in the delivery room, complaining she was in a lot of pain. He recalls two nurses coming in with the

doctor, and that Vasanthi was told to push. He told the court he could see the baby's head. A vacuum was applied to the head as part of the process to complete the delivery. He also recalls more people entering the room to assist. The baby was then taken to an incubator.

[34] The plaintiffs called two obstetricians as experts on the standard of care expected of obstetricians in similar circumstances. Dr. George Arnold, an obstetrician from the Markham Stouffville Hospital, and Dr. Timothy Draycott, from Southmead Hospital in Bristol in the United Kingdom, were each qualified as expert witnesses and testified on the standard of care.

[35] In addition to having Dr. Arnold qualified as an expert on the causation issue, the plaintiffs also called a bio-medical engineer, Dr. Robert Allen.

[36] Dr. Clarke was also called by the plaintiffs to testify as an expert witness on causation, as well as a participant expert in his capacity as Sankavi's treating physician.

[37] Dr. Scheufler called two obstetricians as experts on the standard of care. He called Dr. Robert Gratton from the University of Western Ontario, and Dr. Arthur Zaltz, who is currently Chief of Obstetrics and Gynaecology at Sunnybrook Health Sciences Centre in Toronto.

[38] Dr. Scheufler also called Dr. Michele Grimm as an expert on causation. Dr. Grimm is a bio-medical engineer employed at Wayne State University in Michigan.

The experts on liability

[39] The question whether Dr. Scheufler used greater than gentle traction to deliver Sankavi, and in a direction that did not meet the required standard of care, is a fact that the court will have to determine.

[40] In trials where medical negligence is alleged, the court requires the opinion evidence of qualified experts to make the necessary findings and to address the issues of standard of care owed and to make findings regarding causation in the case.² Such questions are often determined based on expert testimony.³

[41] The reliance on expert evidence could not be more prevalent in this case. The Rathan family has little, if any, evidence about what happened in the delivery room, except for the exhaustion Vasanthi experienced, and the requests that she made during labour. In the RO, Dr. Scheufler set out how he applied “gentle traction” and the proper manoeuvres he used for Vasanthi to deliver Sankavi after identifying the shoulder dystocia event.

[42] In his direct examination at trial, Dr. Scheufler could only recall the room where the birth occurred, the name of one of the assisting nurses present, that Sankavi was a very large baby, and that she was quite flat once delivered. The delivery room

nurses, and Dr. Williams could recall anything unusual that Dr. Scheufler did or did not do beyond following the standard ALARM⁴ protocol an obstetrician is required to follow in a shoulder dystocia event.

[43] The experts called by the parties at trial are expected to give fair, objective and impartial opinion evidence to assist the court. Each expert is required to abide by the Acknowledgement of Expert they sign under Rule 4.1 of the *Rules of Civil Procedure*. The independence and impartiality of an expert goes to the admissibility of the evidence that expert has to give within the field of expertise for which they are qualified to give opinion evidence at trial. Once admitted, their independence and impartiality will go to the weight given to that evidence by the trial judge.

[44] In *Hasan v. Trillium Health Centre Mississauga*⁵, Tzimas J. set out the process for the trial judge to weigh the conflicting opinions given in evidence by experts:

[70] When weighing conflicting expert evidence, the Court should have regard to the following factors:

- a) the relevance of the training, experience and specialty of the witness to the medical issue before the court;
- b) any reason for the witness to be less than impartial; and
- c) whether that testimony appears credible and persuasive compared and contrasted with the other expert testimony at the trial.

See Latin (*Litigation Guardian of*) *v. Hospital for Sick Children*, [2007] O.J. No. 13 (S.C.), at para. 146.

[71] Most recently, Trimble J. in *Sit v. Trillium Health Centre*, 2020 ONSC 2458, at paras. 121-124, organized the various cases that have provided guidance on how to evaluate the evidence of competing experts and accept one opinion over another. The three-step process involves i. a consideration of one's qualifications and impartiality; ii. an assessment of the evidentiary basis for the opinion; and iii. an examination of the whole opinion. When it comes to weighing competing expert opinions, the trier of fact may accept or reject any part, or all the evidence to determine the weight to be given to the expert evidence. However, the court is not entitled to pick and choose among various aspects or portions of the expert's opinion on a given issue to fashion a new opinion. "Generally, the court does not have the expertise to determine whether the expert is right or wrong in their opinion. When the court does this, it would, in effect, assume the role of the expert", *Sit*, at para. 125.

[72] The credibility and reliability of a particular witness is not the proper subject of expert opinion. Such evidence risks usurping the court's fact-finding role: See *Parliament v. Conley*, 2021 ONCA 261, at para. 44.

[73] Although an expert may rely on factual assumptions to formulate their opinion, the value of the opinion and the weight it may be afforded will depend on the validity of those assumptions. Experts are expected to synthesize information from their work and experience and "marry it with evidence adduced through exhibits, admissions and the testimony of other witnesses in the proceedings and express an opinion about a factual inference that should be drawn from the accumulated materials": see *R v. C.(M)*., 2014 ONCA 611, at paras. 69-70.

[45] The assessment process is important as the opinion evidence proffered by opposing experts often resemble competing positions in an area where the court requires the special knowledge of experts.⁶ These opinions must be resolved in the course of the truth-seeking function of the court.

Dr. Timothy Draycott

[46] Dr. Draycott has been an obstetrician and gynaecologist in the United Kingdom since 1991. He was appointed to the Southmead Hospital in Bristol in 2002 as a Consultant Obstetrician, a designation he describes as similar to recognition as a specialist. He also has academic accreditation as a professor in obstetrics and

intrapartum care, where his research focuses on intrapartum safety and quality improvement, in particular to reduce preventable harm during labour.

[47] Dr. Draycott has also been instrumental in developing training protocols to reduce or eliminate the incidence of *brachial plexus injuries* at birth in shoulder dystocia cases. The protocol developed by Dr. Draycott and his team at Southmead Hospital in Bristol was reflected in the PROMPT program, which stands for Practical Obstetric Multi-Professional Training.

[48] In addition to his clinical practice, research and training programs, Dr. Draycott is also the senior clinical advisor to NHS Resolution in the United Kingdom, and a senior clinical advisor for maternity for the Care Quality Commission and the new NHS Healthcare Safety Investigation Branch. The latter is an organization constituted to resolve medical malpractice claims against physician and hospitals. He has also been elected Vice President of the RCOG.⁷

[49] Dr. Draycott was qualified as an expert to give opinion evidence on the standard of care of obstetricians in Canada in resolving shoulder dystocia during birth in 2009, and the causes and prevention of *BPI*.

Dr. George Arnold

[50] Dr. Arnold is recognized as a specialist in Obstetrics and Gynaecology in 1992. He has been on active staff in the Department of Obstetrics and Gynaecology

at Markham Stouffville Hospital since 1992 and was appointed Chief of that department in 1999. From 2004 to 2019 he was a standing member of the Obstetrics Panel of the Investigations, Complaints and Results Committee of the College of Physicians and Surgeons of Ontario.

[51] Dr. Arnold was called by the plaintiffs to give opinion evidence on the standard of care expected of an obstetrician in a shoulder dystocia situation. Dr. Arnold was qualified to give opinion evidence on obstetrics, the management of shoulder dystocia and the causes of *BPI*.

Dr. Robert Allen

[52] Each party also called a bio-medical engineer as an expert on the causation issue. The Rathan family called Dr. Robert Allen as part of their case.

[53] Dr. Allen is not a medical doctor. He holds a PhD in biomedical engineering. He is an assistant researcher at the Einstein School of Medicine and Montefiore Women's Health in New York City, where he conducts research and assists with the training of obstetric providers in the management of shoulder dystocia. He was associated with Johns Hopkins University in Baltimore, MD starting in 2001 as a lecturer, and later as an associate research professor. He was the first Director of the undergraduate program for the Centre for Bioengineering Innovation and Design at Johns Hopkins University between 2007 and 2015.

[54] Dr. Allen was qualified as an expert to give opinion evidence in the field of biomedical engineering on what caused the injury to Sankavi Rathan, and when that injury took place.

Dr. Robert Gratton

[55] Dr. Robert Gratton is an Associate Professor in the Department of Obstetrics and Gynaecology at the University of Western Ontario. He is a Fellow of the RCOG, and a Diplomat of the American Board of Obstetrics and Gynecology (maternal Fetal Medicine and Obstetrics and Gynecology). He has over 20 years of clinical experience in obstetrics and maternal fetal medicine, and had just completed a six-year term as Chief of Obstetrics at London Health Sciences Centre when he was called to give evidence as an expert at this trial.

[56] Dr. Gratton has a specialty in obstetrics and gynaecology, with additional training in risk pregnancies. His academic expertise is in quality of care and patient safety.

[57] After an extensive round of examinations on both his qualifications and Ms. Girones' request that I reconsider finding that Dr. Gratton has relevant evidence to give as an expert, Dr. Gratton was accepted by the court as an expert in the field of obstetrics and maternal fetal medicine. He was qualified to provide opinion evidence on the standard of care expected of an obstetrician practicing in Canada in 2009.

Dr. Arthur Zaltz

[58] Dr. Zaltz was called by Dr. Scheufler's counsel as the second obstetrician to give evidence on the standard of care expected of an obstetrician delivering a baby in similar circumstances.⁸ Dr. Zaltz is an obstetrician and gynaecologist and has been on staff at Sunnybrook Health Sciences Centre since 2010. Prior to that time, he practiced at Women's College Hospital from 1989 until the obstetrics department was moved to Sunnybrook in 2010.

[59] Dr. Zaltz earned his medical degree in 1982. From 1982 to 1987, he interned and then served a four-year residency in obstetrics and gynaecology at Women's College Hospital, Toronto General Hospital and Wellesley Hospital. He is currently the Chief of Obstetrics and Gynaecology at Sunnybrook. His duties include management, serving as the liaison with the University of Toronto and the neo-natal program. He has taken the PROMPT training in the United Kingdom from Dr. Draycott and his team, and has modified that program for Canada, including the treatment of shoulder dystocia.

[60] After hearing submissions, and on consent, I qualified Dr. Zaltz as an expert in obstetrics to give opinion evidence of the standard of care expected of an obstetrician practicing in Canada in 2009, and in particular the management of shoulder dystocia and on the cause of *BPI*.

Dr. Michele Grimm

[61] Dr. Scheufler called Dr. Michele Grimm to give evidence as a bio-medical engineer on causation. Dr. Grimm describes bio-medical engineering as the adaption of traditional engineering science to human bodies. This discipline can be distinguished from bio-mechanical engineering, which is a subset of bio-medical engineering, that applies mechanical engineering principles to the working of the body.

[62] Dr. Grimm is a Visiting Professor of bio-mechanical engineering at Wayne State University in Detroit, Michigan. Before that, she was employed at Michigan State University where she has been an associate professor since 2019 in the Weilanga Creative Research Program. Dr. Grimm explained during the examination on her qualifications that she uses computer modelling for computational work and research on women's health and the health of the fetus. Her experiments have led to developing models and computations that take into account body and tissue loading. She has worked with Dr. Bernie Gonik, and has taken a concentrated interest in the causes of *BPI*. In 2014, Dr. Grimm was invited to participate as the only engineering member of the nine-member Task Force struck by the American College of Obstetricians and Gynaecologists.⁹

[63] Dr. Grimm was qualified as an expert in the field of bio-medical engineering to provide opinion evidence about the causation of birth related *BPI* and the cause of Sankavi's *BPI* in this case.

Summary of evidence in chief called by the plaintiffs on liability

Dr. Howard Clarke

[64] Dr. Clarke is a specialist in pediatric plastic surgery at HSC. Dr. Clarke was called by the plaintiffs as a participant expert as he treated Sankavi for her *BPI*. All parties acknowledge that Dr. Clarke is a leader in his field.

[65] Dr. Clarke has treated countless children having *brachial plexus injuries* and has performed countless surgeries to repair or rehabilitate injuries of this nature caused for various reasons. Those reasons include *brachial plexus injuries* caused by in-utero forces, and those having an external cause.

[66] Dr. Clarke was also qualified as a litigation expert to give opinion evidence in the field of plastic surgery diagnosis, prognosis, treatment and rehabilitation of children with obstetrical and *brachial plexus injuries*, and the surgeries required to treat those injuries.

[67] Sankavi was brought into the Brachial Plexus Clinic for evaluation by Dr. Clarke in April 2009. At two months old, she was presenting with no activity associated with her right extremity, and a droopy right eyelid indicative of Horner syndrome. Dr. Clarke recommended to her parents that Sankavi have an operation on her *brachial plexus* to remove damaged segments of nerve, and to reconstruct them in whatever way was possible in an attempt to provide movement to her right shoulder and arm.

He advised the family at that time that there would be little or no recovery in this extremity without surgery.

[68] A myelogram test was performed on Sankavi which consisted of injecting dye around her spinal column for clinicians to conduct a CT scan to look for evidence that nerves had pulled away from her spinal cord. This test gave Dr. Clarke a “best guess” of what he would see when he performed the surgery itself. From the myelogram, and at the surgery that followed, Dr. Clarke diagnosed that the nerve roots at C6, C7, C8 and T1 were completely avulsed and that the nerve root at C5 was a neuroma, indicating a traumatic injury. In cross-examination, Dr. Clarke testified that the C5 neuroma was not a compression injury, but as a result of trauma of longitude and traction along the nerve.¹⁰

[69] Dr. Clarke described the lesions he observed pertinent to Sankavi’s right *brachial plexus* to be traumatic lesions caused by external force. He stated that there no congenital or physiological deformities or anomalies were observed. He explained that the traumatic lesion he encountered when operating on Sankavi’s nerve roots was an external injury where four of the nerve roots had been “torn away from the spinal cord.” As Dr. Clarke described it, the C5 nerve root had been “torn sufficiently to produce this lump of scar, but that’s from the application of some external force.”¹¹

[70] Dr. Clarke told the court that other children with *brachial plexus injuries* are seen and treated at the Brachial Plexus Clinic on a regular basis. Dr. Clarke testified

that he has performed over 420 *brachial plexus* surgeries over his career. He described a spectrum of the injuries resulting from the birth process when asked as follows:

Q. Could you explain to His Honour where this child's injuries lie on the severity spectrum, please?

A. The severity of *brachial plexus* injuries resulting from the birth process is very, very wide. It's a huge spectrum from at one end children whose arm is limp or part of their arm is limp for a few minutes and then is better by the next day. So at the very mild end of the spectrum the nerves have just been pulled enough to be stunned and stop working electrically for a little period of time and then recover very rapidly. At the other far end of the spectrum are the patients where all five of the nerves have been avulsed from the spinal column, so all of them have avulsed from the spinal cord and there is no - there's no opportunity for spontaneous activity or recovery of any kind in those patients and in those patients, without surgery the limb will be floppy indefinitely with no, with no opportunity to recover. So that represents the wide spectrum from one end to the other. In this situation we're very near the severe end of the spectrum because four of the nerves had been pulled from the spinal cord and therefore offer no opportunity to get limb nerve fibers back into the arm and we only have one nerve root left with any possibility of regrowth into the arm so this puts her injury at the severe end of the spectrum. Not bang on the very hard end of that spectrum, but very near to that end of the spectrum.¹²

[71] Dr. Clarke's testimony was the only evidence from a treating doctor that was given at trial, apart from Dr. Scheufler's own evidence. Neither Dr. Clarke or Dr. Scheufler noted any congenital abnormalities concerning Sankavi, or any physiological impairment except for the injuries she sustained at birth.

Dr. Timothy Draycott

[72] By the time the trial commenced, the obstetricians called as experts by both parties had reached substantial agreement that the standard of care for an obstetrician faced with a shoulder dystocia delivery was the same for Canada and the UK, as well

as the United States. There is no dispute that the 18th Edition of the ALARM Course materials were the prevailing training guides for obstetrical practice in Canada in 2008 and 2009. This was confirmed by Mr. McLaughlin for Dr. Scheufler in the course of Dr. Draycott's evidence.

[73] The circumstance in which Dr. Scheufler was delivering Sankavi on February 27, 2009, was one where a shoulder dystocia had occurred. He described shoulder dystocia as a "bony problem", where the anterior shoulder of the baby becomes stuck behind the bone of the mother's pelvis.¹³ Until the shoulder is released from this impaction, pulling on the baby's head will just stretch the head away from the shoulder because the shoulder is fixed. The more downward an "*accoucheur*" (an umbrella term used in the UK for any person assisting with or managing a human birth, and includes obstetricians and midwives) pulls on the baby's head, the greater the stretch becomes between the impacted shoulder and the head, and the more likely there is going to be an injury to the *brachial plexus*.

[74] Dr. Draycott went on to explain that downward traction (pulling the baby's head towards the floor) is to be avoided during shoulder dystocia as it can increase the risk of injury. Lateral traction (away from the mother) has the same effect as downward traction.

[75] Equally key to prevention of *BPI* during birth are the three elements of traction Dr. Draycott spoke about in reference to cadaver studies in the 2005 RCOG Guideline

42, in force at the time of Sankavi's birth. He described those elements this way, in contrast to routine, or gentle traction that can accompany an injury-free birth:

Q. Is this the routine traction that you spoke of?

A. So axial means in the axis of the spine of the baby, so no lateral flexion, but a -- just an axial straight direction to avoid that lateral flexion and stretching.

Q. And what about the -- what about up and down?

A. So, axial, axial does not -- so routine traction, so that the amount of traction to be employed is defined in the first line where it says, routine traction is defined as the traction required for delivery of the shoulders in a normal vaginal birth, where there is no difficulty with the shoulders. So that has been consistent all the way through. That's how much you're allowed to pull. Now, the direct -- there are three elements of traction that are really important. One is the amount of force. The second is the direction of the force, and the third is the nature of the force. Is it jerking or smooth? And you can see here that the amount of force is defined as that traction required for a normal birth without shoulder dystocia and no more. And you can see in this - - the second sentence on this guidance says the evidence from cadaveric studies, so from dead bodies, suggests that lateral and downward traction is more likely to cause nerve avulsion. So the more you pull -- and you clearly cannot do these studies in live normal people. But when they tested this, and they did it on stillborn babies, this was in France. It would not get ethical committee approval here in the UK, but the study was examining at what point did the nerves get pulled out of the spine? That's what avulsion means. And they demonstrated very clearly that the more stretching there is, the more likely you are to get that avulsion. Not just a tear in the nerve, but the nerves torn from their origin in the spine. And you can see it says, therefore, this should be avoided in the matter of shoulder dystocia, la, la, la.¹⁴

[76] Dr. Draycott was asked about the most probable cause for Sankavi's injuries having suffered a permanent injury to five of the nerve roots making up the *brachial plexus* of the anterior shoulder after shoulder dystocia is diagnosed. He expressed the opinion that, on the overwhelming balance of probabilities, it was related to excessive traction during shoulder dystocia.¹⁵

[77] Dr. Draycott also gave his opinion on how up to date training in obstetrical emergency situations including shoulder dystocia reduces, and may all but eliminate,

the occurrence of nerve root injury. He cited a study conducted in Sweden (the “Mollberg data”)¹⁶, and from the Netherlands (“the Pondaag data”)¹⁷, as evidence that suggests that someone who has more than one nerve root injured, a permanent injury of more than one nerve root, is indicative of a permanent injury from generally being pulled very hard and in a downward direction.¹⁸

[78] In relation to other possible causes of Sankavi’s *brachial plexus injuries*, Dr. Draycott discussed the identification of endogenous forces such as propulsion of the baby in utero by the nature and duration of the injury sustained as follows:

There's no evidence — so, so think about *brachial plexus injury*, it is quite a complicated area. At least partly because -- and this is the problem with the ACOG report --there are at least six different elements that need to be taken into account. So is the injury transient, or permanent? Does it last less than 12 months or more than 12 months, because the causation of those injuries may be different? Secondly, it's really well-recognized that *brachial plexus injury* can occur without shoulder dystocia. It can occur at a cesarian section. So, if there's no shoulder dystocia, very difficult to understand how better management of a shoulder dystocia would have prevented an injury because there wasn't one. And the final element is the difference between the anterior arm and the, and the posterior arm. And the mechanism of injury is very different.¹⁹

[79] From his review of the delivery record with respect to the relationship between the second stage of Vasanthy’s labour and the delivery of Sankavi’s shoulders, Dr. Draycott had this to add from her contractions and the need for Dr. Scheufler’s assistance:

Yeah. So, a second stage of less than 20 minutes is considered rapid or short. And the thinking there is that in a very fast second stage, the baby is pushed down the birth canal so rapidly that there can be a bang on the anterior shoulder that causes a transient *brachial plexus injury*, that then is not noticed. And that may be the cause of injuries where there's no shoulder dystocia, injuries that are transient when there

is a shoulder dystocia, and is thought to be one of the key features of the propulsion you will hear, I'm sure, from Michele Grimm and Robert Allen, about propulsion mechanisms of injury. But we don't think that can be the case when there's not this rapid second stage. And clearly, in the index birth, Ms Rathan's birth, she was tired. She was exhausted from pushing for more than 40 minutes, and therefore the second stage was expedited with the vacuum extractor. Therefore, she would not have the rapid second stage that people associate with this kind of propulsion mechanism of injury.²⁰

Dr. George Arnold

[80] Dr. Arnold told the court that he has delivered approximately 10,000 babies over his career. All of these babies have been delivered without the occurrence of a permanent *brachial plexus injury*.

[81] In the course of his evidence, Dr. Arnold interpreted the progression of Vasanthy's labour and Sankavi's delivery from Dr. Scheufler's RO and the nurses' notes and records filed as exhibits. Vasanthy's second stage of labour began at the hospital when her cervix was fully dilated (at 10 centimetres), recorded at 2140 hours (9:40 p.m.). That second stage of labour came to an end when Sankavi was fully delivered.

[82] According to Dr. Arnold's interpretation of the RO, Dr. Scheufler came in to assess the baby at 2220 hours (10:20 p.m.), and noted the baby's head was in an occiput posterior position, which means the crown of the baby's head was toward the mother's back with her face up. Dr. Scheufler tried to turn the baby's head inside the uterus to an occiput anterior position to make the later passage of the baby through the mother's pelvis easier, but this attempt was unsuccessful. At 2304 hours (11:04

p.m.), Vasanthi asked Dr. Scheufler for assistance, to which Dr. Scheufler recommended a vacuum delivery. Vasanthi agreed to this assistance. At this time, Vasanthi had been pushing for 84 minutes, and was exhausted.

[83] The vacuum was applied to Sankavi's head at 2312 hours (11:12 p.m.). Dr. Arnold opined that Sankavi's head was delivered between 2315 and 2316 hours (11:15 – 11:16 p.m.), but "turtled" or retracted marginally into Vasanthi's vagina, at which time Dr. Scheufler identified the shoulder dystocia. According to the RO and his own evidence, Dr. Scheufler proceeded to apply various manoeuvres to fully deliver Sankavi at 2317 hours (11:17 p.m.), providing a head to body interval of 1 to 2 minutes.

[84] Dr. Arnold testified that Sankavi was a big baby at a birth weight of 4,891 grams (10 lbs., 12.5 oz.), which is sometimes referred to medically as macrosomic. Dr. Arnold reviewed the Apgar scores nurses recorded for Sankavi to document the immediate health of the baby one, five and ten minutes after birth. He noted that the one minute score was low, but that Sankavi's responses to stimulation improved at the five minute and ten minute marks.

[85] In his evidence, Dr. Arnold describes the concept of "gentle traction" and how to apply it:

So gentle traction is, basically, a feel that comes through knowledge and experience. And we know how much traction to apply for most normal deliveries. You know, when you need to use a little bit more, but you also know that there can

be too much. And so, those are all things that, as a practicing obstetrician, you know.²¹

[86] On the issue of causation, Dr. Arnold's evidence in chief was as follows:

Q. All right, so that was definitely -- so the location of the shoulder was an important consideration for you? And help us understand how that helps you decide which cause is more likely?

A. It's -- the idea behind the propulsion theory is that the shoulder is being pushed against the symphysis and it gets stuck there, as the head is still being delivered and that increases the angle of the head and shoulder and causes a propulsion injury. And if you -- so I wasn't being -- able to visualize that happening here and I wanted to try to see if I could, even though that the literature would suggest that in this type of *brachial plexus injury*, with an anterior shoulder with shoulder dystocia, with a large baby, that the most common or the most likely cause of the injury to *brachial plexus* was traction. I wanted to see is there a potential other option here and I didn't see it.

Q. Okay. So therefore, did you come to a conclusion as to what the cause of the baby's injury was?

A. Yes, I did. Based on the fact that I've looked at and that I've gone through, my conclusion was that the injury occurred because of inappropriately applied force by Dr. Scheufler.

Q. And when was that force applied, if you can ascertain that, or can you?

A. It was applied during the time that he was performing the delivery.

Q. And was the force applied by Dr. Scheufler above or below the standard of care?

A. It was below the standard of care.²²

[87] The following evidence from Dr. Arnold is quoted from the plaintiffs' closing submission on the most likely explanation for why this injury occurred:

Sure. So, in answer, yes, I definitely formed an opinion and, and we'll get to that. And just -- I guess my thought process as I worked through the facts that are in the records, and tried to put together the most likely explanation for why has this injury occurred. And, you know, just, I guess going, going through my opinion, shoulder dystocia happens. It's something that we're trained to deal with. And it happens not infrequently. So it's -- it, it comes up on a relatively regular basis. And when it does happen, there are a set of manoeuvres that you want to go through in an effort to

release the shoulders. And you want to ensure that when you're applying traction, you use gentle traction, because we are all taught that if you use more than gentle traction, it can actually lead to the type of injury that happened here. And when you're performing the different manoeuvres, it's also important to realize that it's called a release manoeuvre for a reason. It's releasing the stuck shoulder, but it's not that the shoulder is coiled behind the symphysis pubis and as soon as you put a mom into McRoberts position, which is flexing the hips and knees back, that all of a sudden, the shoulder comes under the symphysis and the baby falls out. The manoeuvre is done and you have to then apply traction again, to see if the manoeuvre was successful in releasing the shoulder. So you are applying traction on and off throughout the whole delivery. You stop at the time a release manoeuvre is done. So, when Ms Rathan was originally placed into McRoberts position, then Dr. Scheufler would apply traction to see if the shoulder would come under, and it didn't. So then, you on to another manoeuvre....²³ (

Dr. Robert Allen

[88] Dr. Robert Allen is a bio-medical engineer called by the plaintiffs. Dr. Allen expressed the view that, in his opinion, Sankavi was injured during the birthing process because Dr. Scheufler applied downward lateral traction in excess of the amount normally used, saying the amount of traction applied was “far more than usual”. He reached this conclusion after ruling out any other causes relating to the abnormality regarding the baby, or problems relating to the mother’s prenatal course or during labour.²⁴

[89] Of significance, Dr. Allen provided his opinion on the relevance of the mother’s state of exhaustion to the prospect that maternal forces during delivery were the cause of the permanent injury suffered by this baby. Dr. Allen did not believe those maternal forces would be sufficient to cause Sankavi’s *BPI* if the mother was exhausted.²⁵

[90] Dr. Allen also addressed Sankavi's birth weight as a factor with respect to the prospect of in-utero injury. In his opinion, a larger baby of almost 5000 grams would have more muscle than a baby that weighs 3000 or 4000 grams. The heavier baby would have greater muscle mass, which makes it more resistant to injury.²⁶

[91] From a bio-medical view, Dr. Allen could see no reason that uterine forces caused this *BPI*. When asked whether he had considered the cause of the injury between the application of excessive traction by the obstetrician during the delivery and the maternal forces of labour, he expressed his opinion that the hyperextension of the right side of Sankavi's neck was a result of external traction applied. When asked to explain what he meant by the term "external traction", Dr. Allen answered "(the) Doctor applied traction on the neck when the shoulder is stuck."²⁷

Summary of evidence in chief called by Dr. Scheufler on liability

[92] In addition to experts called to give opinion evidence on his behalf, Dr. Scheufler testified, and called Dr. Williams and two of the nurses who had assisted with Sankavi's delivery that night.

Dr. Peter Scheufler

[93] Dr. Scheufler is an experienced obstetrician with privileges at the Mississauga Hospital. He obtained his medical degree from the University of Toronto

in 1988, after which he completed a one year internship and a four year residency in obstetrics and gynaecology between 1988 and 1993 at teaching hospitals in downtown Toronto.

[94] In 1993, Dr. Scheufler acquired a fellowship in Obstetrics and Gynaecology from the Royal College of Physicians and Surgeons²⁸ upon passing specialized examinations in May 1993. He is currently a member of the Society of Obstetricians and Gynaecologists of Canada²⁹, a professional body that creates templates, practice guidelines and academic articles for others in the obstetrics and gynaecology community. The role of the SOGC includes the periodic publishing of clinical practice guidelines.

[95] Dr. Scheufler is also a member of the American College of Obstetricians and Gynecologists.³⁰

[96] During his examination in chief, Dr. Scheufler explained that the reference on his *curriculum vitae* to the Team at Trillium Health Centre for the Managing Obstetrical Risk Efficiently (known as the MoreOB program) between 2008 and 2012 refers to an education package promoted by SOGC. He was one of four or five core members of the group that developed and integrated training packages for hospitals using a team approach to teach about the standard of care and to critically review methods for managing obstetrical issues.

[97] Dr. Scheufler also explained that he has been involved in the ALARM course, which was a refresher course in the 1990's, and active in the MoreOB program, which has become a hospital-based version of the ALARM course. He told the court that he last completed formal training for managing shoulder dystocia prior to Sankavi's birth in November 2008. In particular, he ran drills with his team at the hospital to practice response procedures in real time. He is also familiar with the ALARM course documents³¹ and the MoreOB material³² as part of the formal part of his training in November 2008.

[98] To the best of Dr. Scheufler's knowledge, there was no training course for managing shoulder dystocia beyond the MoreOB and the ALARM course available to obstetricians in Ontario as of February 2009.

[99] In addition to having an office practice, Dr. Scheufler has had obstetrical and gynaecological privileges at Mississauga Hospital for over 28 years. Between 2007 and 2011, he was the medical director and program Chief for obstetrics and gynaecology at the hospital. When Credit Valley Hospital merged with Trillium Health Centre in 2011 to form the Trillium Health Partners, he served as the inaugural chief and medical director for what is now called Women's Health until 2016. He currently holds the position of medical director and program head for obstetrics. In addition to his practice, Dr. Scheufler teaches medical students rotating through the Mississauga location for the faculty of Medicine, University of Toronto, as well as modern day

midwifery students and medical residents. This teaching includes giving instruction to students and residents on the management of shoulder dystocia.

[100] Dr. Scheufler estimates that he has delivered around 400 babies a year, and over 10,000 babies over his career. In those 28 years, he has encountered 100 to 150 cases involving shoulder dystocia. Of those shoulder dystocia cases; Sankavi was the only baby to suffer a permanent *brachial plexus injury*.

[101] Dr. Scheufler testified that he used gentle downward traction to attempt to deliver Sankavi's shoulder after shoulder dystocia was encountered. Employing "gentle downward traction" is also referred to in Dr. Scheufler's delivery note. Nowhere in the delivery note does it say, "axial downward traction", although Dr. Scheufler testified that he meant "axial downward traction".

[102] Dr. Scheufler denies all allegations of negligence made as against him. He pleads in the statement of defence filed on his behalf that in providing medical care, he exercised the skill, judgment and care expected of a physician with similar training and experience. Of note, Dr. Scheufler has not pleaded that he made an error of judgment when managing the shoulder dystocia and the manner in which he delivered Sankavi.

Nurse Duperrouzel - Nicoll

[103] Ms. Duperrouzel-Nicholl was an obstetrical nurse on duty in the delivery room when Dr. Scheufler delivered Sankavi on February 27, 2009.

[104] Ms. Duperrouzel-Nicholl has worked as a registered labour and delivery nurse since 1988, and retired from working at Mississauga Hospital in 2019. While working there as a nurse, she completed the MoreOB training, which included training as part of a team in shoulder dystocia situations.

[105] Prior to February 2009, Ms. Duperrouzel-Nicholl would work with Dr. Scheufler as a labour and delivery nurse on a regular basis, and at least once a month. She would observe him when managing shoulder dystocia deliveries and other obstetrical emergencies. She described him in her evidence as calm, and a good communicator, able to give directions and to let others know what he required done.

[106] Even though Ms. Duperrouzel-Nicholl has no recollection of her role in Sankavi's delivery, she identified the notations in the labour and delivery records made by her, and confirms that she was present in the delivery room that night.

Nurse Ms. Nneka Ochuba

[107] Ms. Ochuba was also a nurse on duty in the delivery room that night. Prior to February 27, 2009, Ms. Ochuba had worked as a labour and delivery nurse at the Hospital since 2004. Before February 2009, she had most recently completed the MoreOB training for shoulder dystocia in 2008. She described how the MoreOB

training involves physicians, nurses, midwifery staff as well as managers. She described how the training has a classroom component that is practical and hands on, a reading requirement and the administration of a test. She also spoke about informal should dystocia training on the labour and delivery unit from time to time.

[108] Ms. Ochuba could not recall her role in Sankavi's birth, but identified the notations in the labour and delivery records to confirm she was present that night. She was in attendance as a result of the Code that was called because of the shoulder dystocia event.

Dr. Ruthanne Williams

[109] Dr. Williams was a resident working under the supervision of Dr. Scheufler in February 2009. She was present for Sankavi's delivery. However, her recollection of the event is limited.

[110] Dr. Williams testified that her view of the delivery was obscured by Dr. Scheufler and the labour and delivery nurses attending on Vasanthi for the delivery. She states that she backed away from the delivery platform when the Code was called

on the diagnosis of shoulder dystocia. Dr. Williams does recall that the environment in the delivery room was calm, and that those in attendance worked together to resolve the emergency.

[111] Dr. Williams stated that she learned that Sankavi had suffered a *BPI* when she encountered Sankavi's father in a hospital hallway the next day.

Dr. Robert Gratton

[112] Dr. Gratton was called as an expert witness for Dr. Scheufler. In his opinion, Dr. Scheufler met the standard of care required of an obstetrician in Ontario when he managed Vasanthi's labour and the delivery of Sankavi as a vaginal birth. This included the assisted delivery through the use of the vacuum on Sankavi's head.

[113] Dr. Gratton agrees with Dr. Arnold that the fetal heart tracing record indicates that Vasanthi continued to push after the vacuum was placed on Sankavi's head. Her contractions continued in the second stage of labour to bring Sankavi down to the spine plus one station that measures the descent of the baby toward the birth canal.

[114] Sankavi's head was delivered after the second of two further contractions of the mother. Once shoulder dystocia is encountered, he stated that "shoulder dystocia is a delivery that requires additional obstetrical manoeuvre following the failure of gentle downward traction on the fetal head to effect delivery of the shoulders."³³

[115] Shoulder dystocia is considered an emergency because the baby is only half delivered, and the umbilical coil may be compressed to restrict the supply of blood and oxygen to the baby's systems. If this persists over a short period of time, it can cause hypoxia which is a decrease in oxygen in the baby's blood. This decrease in oxygen can lead to injury of several systems in the baby including the brain, and to the heart, which is related to asphyxia.³⁴

[116] Dr. Gratton told the court that "axial" traction is the same as "gentle" traction, describing it as follows:

So axial traction really is in line with the fetal spine. What we're differentiating is that all traction has a degree of a downward component and 25 to 45 degrees is the -- below the horizontal plane, is the acceptable amount of deflection from the horizontal plane. And that is actually in-keeping with a plane of the fetal spine, and also in-keeping, as we were talking about before, the curve of Carus. That's sort of the normal pathway of the, of the birth canal. So the principle is, that when you apply that gentle downward traction, you're doing so in the normal axis that the baby would transverse, the mid and outlet of the pelvis.³⁵

[117] In Dr. Gratton's opinion, Dr. Scheufler's application of gentle traction in this case met the standard of care. He testified as follows:

So, first, gentle traction was applied. And Dr. Scheufler indicated that that was in the axial direction, consistent with the plane of the fetal spine and that was -- so I think the exact words in the summary were, initially attempted gentle downward traction, and this was unsuccessful. And that really is where you get to the diagnosis of shoulder dystocia. You suspect it, based on the turtle sign, but the diagnosis comes when you attempt gentle downward traction and there's no descent of the shoulder.³⁶

[118] Dr. Gratton thoroughly reviewed the manoeuvres Dr. Scheufler described in the RO that he applied to Vasanthi after using gentle traction and identifying shoulder

dystocia. These were, in order, the McRoberts manoeuvre, where Vasanthy's legs were lifted toward her jaw line to straighten the axial plane of the birth canal along the maternal spine. The McRoberts manoeuvre is accomplished by the obstetrician with the assistance of labour and delivery nurses to lift the mother's legs to improve the trajectory of the baby's delivery. Dr. Scheufler then directed the labour and delivery nurses to apply supra-pubic pressure to the Vasanthy's abdomen. Supra-pubic pressure is applied to the mother's lower abdomen above the pubic area located behind the anterior shoulder of the baby (where it is stuck) in an effort to disimpact the baby's shoulder from behind the mother's symphysis pubis.

[119] Dr. Scheufler also attempted to deliver the posterior arm (opposite the anterior shoulder that is stuck behind the mother's pelvic bone) to relieve the lateral pressure on the anterior shoulder. Finally, he employed the Woods "corkscrew manoeuvre" which involved inserting his fingers into Vasanthy's vagina to manually rotate the baby inside the birth canal 180 degrees to disimpact the anterior shoulder from the maternal symphysis pubis, which resulted in a successful delivery. This is often an effective manoeuvre because the baby is descending as it is turned.

[120] It is evident from Dr. Gratton's evidence that Dr. Scheufler "clarified" that the downward traction recorded in the RO was, in fact, axial downward traction. Dr. Gratton himself gave evidence that he had become apprised of the term "axial downward traction" by reading an ACOG Bulletin published in 2017.³⁷

[121] Dr. Gratton described about how a baby can still suffer a neonatal *BPI* even with properly applied traction. A baby can even suffer a transient or permanent *BPI* in a caesarian section delivery. He explained that there are “lines of evidence” that there can be a permanent *BPI* in the absence of shoulder dystocia. Among those articles he referenced in regard to the occurrence of *brachial plexus injury* at any stage where there is shoulder dystocia, Dr. Gratton relied on “Obstetric maneuvers for shoulder dystocia and associated fetal morbidity” by Gherman, Ouzounian and Goodwin³⁸ Dr. Gratton also referred to an article known as the Sandmire study,³⁹ to conclude that Erb’s palsy, which can manifest as paralysis of the muscles of the upper arm and shoulder as a result of trauma or injury to the C5-C7 range of nerves, can occur at birth without shoulder dystocia. This leads him to conclude that traction is not a sufficient explanation for either a transient or a permanent injury.⁴⁰

[122] Dr. Gratton also referred to the article published by Dr. Amel A.F. El-Sayed of the Department of Obstetrics and Gynecology published in 2013.⁴¹ Dr. El-Sayed concluded from his study that it “clearly demonstrates that the normal forces of labour and delivery can lead to obstetric brachial plexus palsy. Dr. El-Sayed further concluded that a higher per centage of total palsy in the difficult delivery group “indicates that higher peak forces applied by the clinician in difficult deliveries affect the type/outcome of obstetric brachial plexus palsy.

[123] There are two factors that Dr. Gratton points to for likely injury to a baby in a shoulder dystocia situation relevant to the facts in this case. The first is that larger infants are more likely to suffer a permanent *BPI* after shoulder dystocia. This is because they require more manoeuvres to free the shoulder.

[124] The second factor relates to the endogenous forces from the mother's contractions or pushing. These maternal forces generate force within the uterus that can cause both transient and permanent *BPI*. Dr. Gratton again observes that a permanent *BPI* can occur to an infant born vaginally without shoulder dystocia.

[125] Dr. Gratton explained how the anterior shoulder of the baby can be injured:

And we spoke about that before where the shoulder gets stuck, but relieves itself in the next contraction or is protracted and in that sense, needs to be disimpacted by the provider. That can occur in both the anterior shoulder or the posterior shoulder. We spoke about that before. The posterior shoulder typically caught behind the sacral promontory, the anterior shoulder behind the symphysis pubis, and it's necessary to distinguish between the two of them, because they're anatomically different. The form -- or the former, the one that is stuck at the pubic bone becomes clinically evident to us because we are managing it. The second, the obstruction at the sacral promontory involving the posterior shoulder, is not clinically evident to us because it occurs before the baby is presenting at the perineum.⁴²

[126] Dr. Gratton gave the following evidence in cross-examination on how the cause of *BPI* of babies at birth is a multi-factoral event, and cannot be attributed to only excessive lateral traction:

A. Right, but the same, the same forces - the same maternal forces, with contractions and with pushing that apply to a - that are of sufficient strength to injure

a baby because of widening of the angle in a posterior shoulder, the same forces are evident in a baby born with an obstruction at this level of symphysis pubis in a case of shoulder dystocia.

Q. But you...

A. You can't separate out the two and say the forces applied in a posterior, they don't apply in the anterior. The same forces apply in an anterior shoulder *brachial plexus injury*.

Q. But again, you cannot point to any case of shoulder dystocia where there has been a permanent injury without some sort of action by the obstetrician.

A. Well, I think there's - by - if there is shoulder dystocia, then there needs to be some action by the care provider or the baby's going to die.

Q. And that's the only point I'm making, sir, that the key - that the articles you have just mentioned deal with cases of not shoulder dystocia. That's all.

A. Right, and I'm making a point that because there's no shoulder dystocia, there's actually less force - there's less total force acting on those babies without shoulder dystocia because you have this - you have the maternal contractions and maternal pushing and let's say gentle downward traction. You have those forces acting on those babies. Anterior shoulder, no shoulder dystocia, those are the forces and yet there's permanent *brachial plexus* injuries. Those same factors all come across now to the shoulder dystocia case.⁴³

Dr. Arthur Zaltz

[127] Dr. Zaltz told the court that approximately one percent of all vaginal deliveries will have complication arising from shoulder dystocia. An injury to the *brachial plexus*, whether that injury be transient or permanent, occurs approximately 0.1 percent of the time. He described the occurrence of a permanent *BPI* as "an incredibly rare complication".⁴⁴

[128] Dr. Zaltz provided a paper review of the RO and documents described in his reports served under Rule 53.03. He confirmed that Dr. Scheufler had completed up-to-date training in the management of shoulder dystocia. Dr. Zaltz opined that the

steps taken by Dr. Scheufler for Sankavi's delivery complicated by shoulder dystocia had complied in all respects with the guidance set out in the MoreOB program. He testified that Dr. Scheufler's management of this emergency "absolutely" met the standard of care expected of a Canadian obstetrician in 2009. He stated that it mirrors all the mnemonics and algorithms that were in the contemporaneous guidelines.⁴⁵

Dr. Michele Grimm

[129] Dr. Grimm gave evidence that her studies and modelling show that maternal forces on a baby where the anterior shoulder of the baby descending in the uterus towards birth has become lodged behind the mother's pubic bone can cause the stretch mechanism that can result in a *BPI*. She acknowledged that the modelling she has conducted in computer simulations are based on data inputted from studies of piglet fetuses and the brachial nerves in adult rats. She has conducted no studies on human subjects.

[130] Dr. Grimm opined that the cause of Sankavi's injury was the differential between her head and torso as her right shoulder came into contact with her mother's pubic bone:

The cause of Sankavi Rathan's injury was due to stretch to the nerve complex that's caused by differential motion of her head and torso as her right shoulder came into contact with Ms. Rathan's symphysis pubis, as Sankavi came through the birth canal, and the shoulder dystocia occurred. When that contact happened, when that shoulder dystocia happened, the stretch to the nerve was a result primarily of maternal expulsive forces, and these alone or in combination with the normal axial traction applied through the vacuum by the delivering physician, Dr. Scheufler, was sufficient to cause the permanent injury.⁴⁶

[131] Dr. Grimm gave the following testimony as the basis for her opinion:

We've already discussed that maternal forces can cause stretch to the *brachial plexus* when contractions continue to apply an outward load to the infant's spine through the pelvis while forward motion of the torso is impeded. This outward force acts on the spine like a column. It moves the spine forward and the infant's head with it, while the shoulder and torso are held back. This widens the angle between the neck and the shoulder, results in a stretch to the *brachial plexus*.

Research conducted under my direction has indicated that a substantial amount of stretch estimated in our model is to be 18.2 percent, occurs in the *brachial plexus* at the time a shoulder impact with the symphysis pubis in a shoulder dystocia when the shoulder remains impacted with the pelvis, when it's not pushed clear of that impact. This amount of stretch is due only to the differential motion caused by normal amounts of maternal endogenous forces. While downward bending of the ear towards the shoulder during a shoulder dystocia causes slightly higher strains in the anterior *brachial plexus*, [than] the maternal forces, there's no evidence presented in this case to indicate that such a motion was applied to Sankavi Rathan's head, and then traction directed in a slightly downward direction while protecting the axis of the head and neck which is generally referred to as gentle downward traction results in less stretch to the *brachial plexus* than that caused by maternal expulsive forces."⁴⁷

[132] Dr. Grimm found support for her position in the movements of Sankavi's head once her mother's contraction that had delivered her head had eased:

I believe there was a turtle sign in this case. Let me -- yes, it was not described as a turtle sign, but it said, upon delivery of the head, retraction was noted and a shoulder dystocia was diagnosed. So that retraction, which is often referred to as the turtle sign ...

So the tissues of the human body have a somewhat elastic property in that [they] stretch, they will go back to their original position. But the stretch of Sankavi's neck that occurred as her head delivered and that shoulder was stuck, then once the contraction was no longer acting, allowed the head to go back to its normal position, and so that is evidence of overall stretching of the tissues of the neck that is then released when the outward force from the contraction and pushing is released.⁴⁸

Analysis on liability

[133] The competing theories of the potential causes of Sankavi's injury can be distilled down to the following:

- a. That Dr. Scheufler applied more than gentle traction in a downward lateral direction after shoulder dystocia had been identified; or
- b. Sankavi was injured by propulsive, in-utero forces without shoulder dystocia.

Framework for the question of liability

[134] In tort cases involving a claim of professional negligence, the plaintiffs must prove that a defendant has breached the standard of care expected, and that she would not have suffered the damages claimed "but for" the negligent act or omission of the defendant. This classic statement of causation was articulated in *Clements v. Clements*.⁴⁹

[135] The courts have recognized that proof of causation in medical negligence cases is often difficult for the plaintiff seeking to establish liability against a doctor. While the legal burden to prove causation remains with the plaintiff, an inference of causation may be drawn against a defendant where the court weighs the evidence called by each of the parties to determine whether or not the plaintiff met that burden.⁵⁰

[136] More recently, this court in *Jones-Carter v. Warwaruk*⁵¹ dealt with the interplay between questions about whether the management of a delivery where shoulder dystocia occurs fell short of the expected standard of care for the obstetrician in a *BPI* case, and whether causation on the balance of probabilities was proven as to the plaintiffs' injuries. M.G. Quigley J. addressed whether the defendant obstetrician had breached his duty of care in a manner that caused the infant plaintiff's partial yet permanent "Erb's palsy" injury, resulting from the avulsion of her C5 and C6 nerves, and a shortened arm with restricted movement. In dealing with the evidence given by Dr. Savas Menticoglou, whom the plaintiff had called as an expert, Quigley J. found it was evident that Dr. Menticoglou had worked backward from the fact of the permanent *BPI* the infant plaintiff had suffered to conclude that the defendant obstetrician had used excessive traction, and to have therefore breached the standard of care owed.⁵² Quigley J. found this approach is contrary to established principles.

[137] Quigley J. conducted his analysis on the framework available for a trial judge in a medical negligence case to follow at the time. He did not have the benefit of the discussion between the panel of the Court of Appeal for Ontario that heard the appeal in *Armstrong v. Ward*.⁵³ In that case, the court discussed the ability of the court to ascertain "what happened" as part of the process to determine both whether the expected standard of care of a defendant physician has been breached, and causation.

[138] On appeal to the Supreme Court of Canada, the Supreme Court adopted the dissenting opinion of Justice van Rensburg in *Armstrong* refining the law of proving negligence, and causation in turn, in such cases. In *Armstrong*, van Rensburg J.A. explained it this way:

[138] I agree with my colleague, at paras. 59 to 63, that typically, it makes sense for the trier of fact to consider causation only after finding a breach of the standard of care: see, for example, *Bafaro v. Dowd*, 2010 ONCA 188, 260 O.A.C. 70, at paras. 35-36. Determining standard of care before causation ensures that the trial judge does not wrongly reason backwards from the fact of the injury to determine that the standard of care has been breached. However, I also agree with my colleague's observation that at times the court will need to determine "what happened" (that is, the factual cause of the plaintiff's injury) in order to resolve whether the standard of care has been breached. Determining factual (and not "but-for") causation is sometimes necessary before a conclusion can be reached on whether there has been a breach of the standard of care.

[138] The "what happened" approach explained by van Rensburg J.A. in *Armstrong* does not modify the law, but rather relies on established authorities.⁵⁴ This fresh perspective, however, provides the basis for considering what happened first as a legitimate departure from strictly following the legal structure of first requiring proof whether the standard of care was breached, and then to determine whether that breach caused the injury for which the claim is made.⁵⁵

Standard of care

[139] In *Armstrong*, van Rensburg J.A. confirmed the test to apply for determining whether a defendant has met the standard of care expected set out in *Crits v. Sylvester*:

[86] In general terms, the standard of care required of a medical practitioner is to exercise a reasonable degree of skill and knowledge and the degree of care that could reasonably be expected of a normal, prudent practitioner of the same experience and standing: *Crits v. Sylvester*, [1956] O.R. 132 (C.A.), at pp. 142- 143, aff'd. [1956] S.C.R. 991. The standard of reasonableness is not a standard of excellence that amounts to perfection. To adopt such an approach would amount to a guarantee: *Carlsen v. Southerland*, 2006 BCCA 214, 53 B.C.L.R. (4th) 35, at paras. 13 and 15.⁵⁶

[140] In *Crits v. Sylvester*, the Court of Appeal also held that where a practitioner holds himself out as a specialist, a higher degree of skill is required of him than one who does not claim to be a specialist by training or ability.⁵⁷

[141] The parties in this case provided closing submissions in writing prior to making final submissions to the court at the end of the trial. In para. 434 of the written submissions of Dr. Scheufler, his counsel states that they take no issue with the plaintiffs' statement of the law in their written submissions where they address the standard of care at paragraphs 129-131 and 133-136. Counsel for Dr. Scheufler also stated at para. 434 that he takes no issue with the plaintiffs description of the test for factual causation in paras. 3-9, or drawing a causal inference in paras. 156-159, 161, 164-167 and 169-172. However, his counsel submits that the plaintiffs have presented a simplistic overview of the applicable legal principles that fail to address several key aspects relevant to the case.

[142] On a review of the closing positions of the parties, it appears that the obstetricians⁵⁸ who were called on the standard of care agree that the standard of care of an obstetrician confronted with shoulder dystocia is to:

- a. Call for help;
- b. Use no more than gentle axial traction on the baby's head; and
- c. Proceed with the release and rotational manoeuvres.

[143] The plaintiffs cite the evidence of Dr. Zaltz that “no one would take exception to the fact that if you pull too hard in the wrong direction you will get an injury.”⁵⁹

[144] Furthermore, it appears that the expert obstetricians called by both parties agreed that more than gentle, downward, lateral traction on the baby's head towards the floor during a shoulder dystocia delivery is conduct that falls below the standard of care.⁶⁰ Pulling on the baby's head with more than gentle traction during a shoulder dystocia delivery falls below the standard of care for an obstetrician. “More than gentle traction” would be more than diagnostic traction or the traction used for more than a normal birth.⁶¹

[145] Dr. Zaltz described how the correct amount of traction to apply when delivering a baby is conducted by “feel”. This would be the degree of force an obstetrician uses when applying traction to deliver a baby, based on experience that has deepened to instinct.

[146] On the standard of care, the plaintiffs refer to the reference that van Rensburg J.A. makes to *Rowlands v. Wright*⁶² in *Armstrong* that “there is a difference between using the appropriate technique and executing it properly.”⁶³

Causation

[147] Further to the statement made in para. 434 of Dr. Scheufler's written submissions, the parties are agreed that:

- a. The approach to factual causation approved by van Rensburg J.A. in *Armstrong* is applicable in certain circumstances; and
- b. The trial judge is entitled to take a "robust and pragmatic" approach to the totality of the evidence to determine whether the plaintiff has established causation on the balance of probabilities.

[148] The question of proof in a medical malpractice case is often vexing as it rests with the plaintiff to prove causation against the medical defendant on the balance of probabilities. As the Supreme Court recognized in *Snell*, proof of causation is often difficult for the patient and the physician is usually in a better position to know the cause of the injury.⁶⁴ Similarly, the Supreme Court in *Fontaine v. British Columbia (Official Administrator)*⁶⁵ observed that there is sometimes little or no direct evidence that a doctor was negligent in medical negligence cases. In such circumstances, inferences can be drawn from circumstantial evidence to support a finding of negligence.⁶⁶

[149] The evidentiary basis for proving causation by inference informs the manner for proving the facts to establish those elements of negligence in a civil action.

Specifically, the manner of proof permitting the plaintiff to prove causation by drawing inferences from circumstantial evidence does not displace the burden of proof on a plaintiff to prove their case. The burden of proof remains the same, although the way they go about discharging it may shift the evidentiary burden to the defendant. Even so, the inferences drawn from other facts in issue must be considered carefully and “in light of all of the evidence and the absence of evidence, assessed logically, in light of human experience and common sense.”⁶⁷

[150] This framework for the role of circumstantial evidence is equally applicable in the litigation of a claim for medical negligence. In *Wilson v. Byrne*, Himel J. explained that:

In establishing negligence, the primary burden of proof is on the plaintiff at all times. However, where circumstantial or indirect evidence plays a role in a case of negligence, a defendant might reasonably be called upon to reply to a plaintiff's evidence, so that the court can consider the likeliness of other alternative explanations of cause. While this may give rise to an inference of causation in some cases, this should not be interpreted as reawakening the *maxim res ipsa loquitur*.

...

While the maxim seems to have expired, the role of circumstantial or indirect evidence in medical malpractice cases is still significant ... In certain cases, a court may determine that there is enough circumstantial evidence to make an inference of negligence to conclude that it is probable that the defendant was negligent. These cases involve the following factual elements: (i) the mishap is one that would ordinarily not have occurred without negligence, (ii) the injury-producing event was in the defendant's control, and (iii) there is an absence of direct evidence, such that the cause of the occurrence is unknown.⁶⁸

[151] There are numerous cases where the plaintiff has brought an action against a health professional for a medical or dental procedure having an unfortunate

outcome, and where the plaintiff relies on circumstantial evidence that failed to establish a *prima facie* case.⁶⁹ In other cases, the courts have ruled that even if an inference could be drawn, it had been rebutted by the evidence of the defendant.⁷⁰ In these cases, the courts have reasserted the basic principle that the burden of proof remains with the plaintiff to prove their case, and that the requirement for the defendant to rebut any *prima facie* case established through indirect evidence does not reverse that burden.

[152] Where there is indirect evidence that permits an inference of negligence, the court will apply the required robust and practical approach to assess evidence of an alternate explanation for the cause of the injury. This approach necessarily involves consideration of the evidence called by the defendant to support the alternative theory. The court must determine whether, given the competing theories of the case and supporting evidence on each side, the plaintiff has proven causation on the standard balance of probabilities.⁷¹

[153] In *Snell v. Farrell*, the Supreme Court recognized the difficulty a patient would have to prove causation in a medical malpractice case and the defendant physician is in the better position to know what happened. Following this observation, the law has developed to allow the trier of fact to draw an inference against a defendant who does not call sufficient evidence contrary to the evidence that supports the plaintiff's case. There is an inequality of knowledge and awareness about "what happened." There is

authority to find that, in determining whether the defendant has introduced sufficient evidence to rebut the inference of causation, the trier of fact should take into account the relative abilities and positions of the parties to bring that evidence forward.⁷²

[154] Dr. Scheufler does not dispute the legal principles discussed in the cases of *Hassen v. Anvari*⁷³ and *Chasse v. Evenson*⁷⁴ to which the plaintiffs have made specific reference. However, his counsel submits that each of those cases involve different factual circumstances that distinguish them from the case before this court. Counsel for Dr. Scheufler submits that the evidence in this case is different because the Rathan family have failed to prove that an inference of negligence should be drawn against him.⁷⁵

[155] In *Hassen*, the trial judge explained that where circumstantial evidence permits the court to draw an inference of negligence, the plaintiff may succeed unless the defendant offers an explanation to negate that inference.⁷⁶ In medical malpractice cases, a plaintiff is permitted to ask the court to draw a causal inference from all the facts as he or she is often under anesthesia or unable to provide direct evidence for some other reason. These facts include the final injury as evidence as to what took place when receiving medical care.

[156] The *Hassen* decisions are instructive at both the trial stage and on appeal.⁷⁷ At the trial level, Kent J. found the defendant surgeon liable for negligence in the performance of a laparoscopic hiatus hernia for mistakenly cutting the patient's aorta,

causing a massive hemorrhage.⁷⁸ It was agreed upon at trial that the patient's aorta "was cut by the blade of the trocar" the surgeon had inserted into the abdominal cavity of the patient for the operation. The surgeon offered three alternative explanations for the injury. Overall, Kent J. found the explanations "were nothing more but speculative possibilities without evidentiary support". He concluded that circumstantial evidence "went unexplained", and that the surgeon had inserted the trocar, too far, too fast, at an incorrect angle, or a combination of any of those errors.⁷⁹

[157] The Court of Appeal affirmed these findings at trial, and made the following comment on the plaintiff's burden of proof that is capable of being proven by circumstantial evidence:

The onus is on the plaintiff to prove that negligence by the defendant caused the plaintiff's injury. That onus may be satisfied by circumstantial evidence that allows an inference of negligence to be made, unless the defendant negates the inference with an explanation that is at least as consistent with no negligence as with negligence.⁸⁰

[158] In *Chasse v. Evenson*, Ross J. of the Alberta Court of Queen's Bench discussed how a plaintiff's burden of proof may be discharged through circumstantial evidence which could lead to an inference of negligence. In the following passage from *Chasse*, Ross J. also discusses how, when an inference of negligence has been established by the plaintiff, a defendant must offer an explanation supported by evidence to negate the inference invited:

"First, the trier of fact should weigh all of the evidence, both direct and circumstantial evidence that gives rise to an inference of negligence, to determine whether the

plaintiff has established, on a balance of probabilities, a prima facie case of negligence against the defendant. Whether an inference is to be drawn from the circumstantial evidence, and the strength of the inference to be drawn, must be assessed.

If the trier of fact concludes that the plaintiff has made out a prima facie case of negligence, she must then determine whether the defendant has presented evidence to negate the plaintiff's evidence. As one aspect of this, the defendant may offer an explanation to negate the inference of negligence arising from the plaintiff's circumstantial evidence. If the defendant produces a reasonable explanation that is consistent with no negligence, this may neutralize the inference of negligence. The strength of the explanation that the defendant must provide varies in accordance with the strength of the inference drawn from the plaintiff's evidence. Further, just as the inference contended for by the plaintiff must arise from the evidence, so, too, the explanation offered by the defendant must be grounded in the evidence."⁸¹

[159] There are facts in evidence before this court that establish the foundation of the plaintiffs' case. The first is the fact of Sankavi's injury was to her full *brachial plexus* from the C5 to T1 nerves. This injury is permanent.

[160] There is the fact that the nerve roots C6 to T1 were entirely avulsed, or torn from the spinal cord at birth. There is also the evidence of Dr. Clarke that the nerve root at C5 suffered a neuroma that was elongated from traction, and not a compression injury. This evidence is uncontradicted.

[161] The RO is clear that Dr. Scheufler recognized that shoulder dystocia had occurred when the baby's head retracted back into the mother, and that release manoeuvres were required. Although Dr. Scheufler recognized the need to employ those manoeuvres, he documented that he may have used gentle traction more than for a diagnostic reason after shoulder dystocia was identified. Counsel for the plaintiffs

read in the following passages from Dr. Scheufler's examination for discovery, taken on June 23, 2016, to become evidence at trial:

Q. You say the baby -- "She progressed to full dilation. Pushed for an hour and 40 minutes, but became exhausted. The baby was in a right, occiput posterior position and a spine plus one." Was it left or right, sir?

A: I believe it was left. I believe this is a typographical error or a dictation error.

Q. I believe so as well.

A: Yeah.

Q. I believe that you dictated left, but somehow it got typed right.

A: I agree.

Q. Throughout the operative note what should have been left is typed as right?

A: Correct.

...

Q. Fair to say then that the head delivered and when the head delivered it was in the left, occiput anterior position? Fair enough?

A: It typically comes directly occiput anterior at the point of delivery.

Q. I understand that. What you're saying is as you apply traction it also rotated a bit to the left anterior position?

A: Yes.

Q. The left shoulder, at the time that you were exercising gentle traction, it would have been the right shoulder that was anterior, is that fair?

A. Correct.

Q. You say, "I was initially attempting to deliver the shoulder with gentle downward traction, but this was unsuccessful." How many times did you attempt to deliver it with gentle downward traction?

A. I don't recall.

Q. More than once?

A. I don't recall.⁸²

[162] There was much evidence given by the experts about Dr. Scheufler's RO and how it serves as a record about what happened. There is even an admission by Dr. Arnold in cross-examination that if Dr. Scheufler followed the course of action set out in his RO, he would have met the standard of care expected of him.

[163] I do not consider the RO dictated by Dr. Scheufler after delivering Sankavi to be exhaustive. I make this finding for three reasons. First, Dr. Scheufler admitted at his examination for discovery that through a dictation or a transcription error, the RO states that the baby delivered in an LOA, or right occiput anterior position, when in fact she was delivered LOA.

[164] Second, Dr. Scheufler states in the RO that he was initially attempting to deliver the shoulder with gentle downward traction, but that this was unsuccessful. This was the only mention of applying gentle downward traction, yet he stated at discovery that he could not recall how many times he attempted to deliver her with gentle downward traction.

[165] Third, Sankavi was delivered at 11:17 p.m. on February 27, 2009. It appears from the RO that it was dictated at 23:40:51, approximately 23 minutes later, which raises the inference that it was dictated quickly.

[166] The circumstances of Sankavi's delivery did not arise in the context of an emergency where she was in danger of being deprived of oxygen, and where life

saving measures were required. Dr. Scheufler candidly admitted in cross-examination that this was not a situation where the baby was in danger of hypoxic ischemia to justify the application of greater than gentle traction to deliver her:

Q. Yes. In other words, if this was not a situation where Sankavi's life was at stake and you had to pull harder, that was not the situation here?

A. No.

Q. No. And it was not the situation here, as well, that you had to pull harder to prevent the hypoxic ischemic injury?

A. Correct.⁸³

[167] During cross-examination, Dr. Scheufler also gave the following evidence that applying more than gentle traction to a baby's head during delivery was medically unacceptable:

Q. Dr. Scheufler, in 2009, and this takes us back to the birth of Sankavi. Do you agree with me that in 2009, applying more than gentle traction to resolve shoulder dystocia was, medically, unacceptable?

A. Yes.

Q. Thank you. Do you agree with me that during the birth of Sankavi, there was no need for you to pull other than gentle traction to prevent the loss of Sankavi's life? There was no need to pull harder than gentle traction to prevent the loss of Sankavi's life?

A. I'm going to ask you to rephrase that question.

Q. I will. And it, it is obtuse and I'm obtuse this afternoon. You did not have to pull harder than gentle in order to prevent the loss of Sankavi's life?

A. Yes, there were other procedures that I could do.⁸⁴

[168] Dr. Scheufler also maintains that the fact Sankavi as a macrosomic, or a big baby at birth, contributed to the incidence of the shoulder dystocia and the resulting *brachial plexus injury* she suffered.

[169] I do not accept the fact that Sankavi was macrosomic at birth was a contributing factor. According to the RO, Dr. Scheufler had unsuccessfully attempted to turn Sankavi at 10:20 a.m. He found there was sufficient room in the pelvic cavity for her delivery at the time. Dr. Scheufler explained that he attempted to turn the baby in-utero from a left occiput posterior position to facilitate an easier delivery when the time came.

[170] I am also persuaded in reaching this conclusion by considering the evidence of both Dr. Clarke and Dr. Allen. In his testimony, Dr. Clarke provided the evidence that he did not have any evidence of the size of a baby born in a shoulder dystocia situation contributing to the severity of *brachial plexus injury*. When cross-examined by Ms. Plumb, Dr. Clarke answered that the risk of injury to the brachial plexus increases with increasing weight, so the bigger the baby, the greater the risk of an injury to the brachial plexus during the birth process. However, he was unsure whether there was any data on whether injuries were more severe in the event of injury than those suffered by smaller babies.⁸⁵ Dr. Allen gave evidence that larger the baby, the more muscle mass the baby has to withstand propulsive forces.

[171] This is not a situation where the doctor had to sacrifice the baby's arm to save the baby's life. This is not a situation where the obstetrician made an error in judgment in the heat of the moment. Dr. Scheufler did not say anywhere in his evidence that he pulled too hard because of an error of judgment, or that excessive traction was needed to save the baby.⁸⁶ As Dr. Scheufler has not taken the position or given evidence that Sankavi's birth injury occurred because of an error of judgment, there is no need to discuss the legal ramifications of his error of judgment. Such a defence arises where a physician admits there was an error of judgment made. In this case, Dr. Scheufler has made no such admission.

[172] The plaintiffs argue that downward traction used by the obstetrician on the baby towards the feet of the mother is an inappropriate and dangerous manoeuvre. They submit that the evidence of Dr. Scheufler and Dr. Gratton seeks to modify the description of "downward traction" found in the record and in the delivery notes of Dr. Scheufler. Of equal significance, the plaintiffs refer to the answers given by Dr. Scheufler in his examination for discovery when he could not recall the number of times he attempted to deliver the baby using "gentle downward traction".⁸⁷ In contrast, Dr. Scheufler testified at trial that he used gentle traction only once when attempting to deliver the shoulder after shoulder dystocia was encountered. Although not reflected in his delivery notes, Dr. Scheufler also stated on his evidence that he had attempted gentle traction again after McRoberts and after applying supra-pubic pressure.⁸⁸

[173] Dr. Scheufler and Dr. Gratton both testified that they believe there was a “change in terminology” in the meaning of the phrase “downward traction” from 2008 which meant “axial traction”, to the present where “downward” traction now means “lateral” or “towards the floor”. Dr. Gratton “clarified” this change of terminology with Dr. Scheufler, before completing his initial report that “downward” in fact meant “axial”.

[174] The totality of the surrounding evidence is consistent with Dr. Scheufler’s evidence that he was not yet in a hurry to deliver the baby and had not yet reached the point where he had to make a decision where it would be justified to harm the baby in order to save the baby’s life in view of the emergency presented by the shoulder dystocia.⁸⁹ Dr. Gratton confirmed that up until the shoulder dystocia was encountered, there was no ongoing concern with proceeding with the vaginal delivery of the baby and there were no significant concerns about the well-being of mother and baby.⁹⁰

[175] Taken together, this evidence establishes a *prima facie* case that raises the inference of medical negligence against Dr. Scheufler. In keeping with *Armstrong* and cases like *Hassen v. Anvari*, it falls to the defendant to offer evidence and an explanation to negate that inference. It always remains the burden of the plaintiffs to prove the negligence alleged on the balance of probabilities. The plaintiffs’ claim will fail if the explanation of the defendant is as consistent with a finding of no negligence was with the negligence claimed.⁹¹

Assessment of the defendants experts

[176] The evidence of Dr. Gratton and Dr. Zaltz may be assessed in terms of their opinions on the propulsive force, or endogenous forces at the core Dr. Scheufler's causation theory.

[177] Both experts are leaders at their respective health science centres, and the obstetrics and gynaecological fields. The credentials of Dr. Gratton and Dr. Zaltz are impressive and not exceeded by the qualifications of Dr. Draycott and Dr. Arnold.

[178] I note that neither Dr. Gratton or Dr. Zaltz offered much evidence of significance as to the alternate cause of the mechanism of injury to Sankavi's *brachial plexus*. Dr. Scheufler called Dr. Grimm to provide most of the evidence to support the theory that the injury was caused by propulsive force, either by maternal contractions, or by the pushing efforts of the mother.

[179] Dr. Allen gave evidence that Vasanthi had been pushing for 84 minutes when Dr. Scheufler attended to deliver Sankavi. Vasanthi was exhausted. In Dr. Allen's view, this exhaustion had depleted her strength to provide sufficient endogenous force to cause any injury to the baby. It is a factor that Dr. Grimm did not consider comprehensively.

[180] The case on liability in large part turns on the evidence called by Dr. Scheufler to offer an alternate explanation to the inferences the plaintiffs invite the court to draw based on the other facts in evidence. The defence of the plaintiffs' claim was based almost exclusively on evidence given by experts as neither Dr. Scheufler, Dr. Williams or the attending nurses recall anything unusual about Sankavi's birth except the Code called for the shoulder dystocia.

[181] Each of the experts called by Dr. Scheufler took a decidedly academic approach to support the defence theory that Sankavi's brachial plexus was injured at birth solely or in large measure by her mother's endogenous forces. Several studies and articles were relied upon by those experts for that purpose.

[182] Dr. Clarke explained in his evidence at the start of the trial that brachial plexus injuries range from transient, resolving in twelve months or so after birth, to permanent. He described how the severity of these injuries differs with injury to fewer nerve roots than the full range from C5 to T1. He also spoke of injury to the posterior shoulder of a baby in-utero where that shoulder or arm impacts on the sacral promontory, a protrusion midway down the spinal side of the uterus that the baby must pass by when descending for birth.

[183] Any studies or articles the defence experts cited in support of the alternate theory for Sankavi's injuries that rely on transient, partial, or posterior shoulder injury involve subject matter that is distinctly different from the facts in this case. This

difference distinguishes those studies and articles from the permanent brachial plexus injury sustained by Sankavi in a shoulder dystocia setting. Those studies and articles reduce the weight I am giving to the evidence of those experts in regard to that literature.

[184] I find that the evidence of the defendant therefore fails to negate the causal inference I am able to draw from the evidence given surrounding Sankavi's birth that Dr. Scheufler applied greater than gentle traction. It is more probable than not that he caused or materially contributed to her injury by doing so.

Findings of fact

[185] I find on the balance of probabilities that Dr. Scheufler applied more than gentle downward traction after he identified the shoulder dystocia emergency. He applied that downward traction either before, or in the course putting Vasanthi through the McRoberts manoeuvre to effect an axial delivery.

[186] This is not to say that Dr. Scheufler is not a skilled physician who has had a long and distinguished career. However, Dr. Scheufler had been on shift for over 15 hours of a 24 hour shift by the time he delivered Sankavi. In a normal shift where he would deliver an average of 10 to 12 babies, he completed five caesarian sections and delivered 14 babies that night. Dr. Scheufler was an obstetrician in a busy, urban hospital, where demand for care is high, and the volume of cases is great. I have no way of concluding with certainty if Dr. Scheufler unintentionally injured Sankavi when

managing her birth, but the law does not require me to find facts on any degree of certainty.

Conclusion

[187] On liability, I make the following findings on the balance of probabilities:

- a. That Dr. Scheufler fell below the standard of care owed by an obstetrician in 2009 when he applied greater than gentle traction to Sankavi's head in a downward direction one or more times before, or after identifying shoulder dystocia, or at the wrong angle during her delivery; and
- b. This traction caused Sankavi Rathan's permanent *brachial plexus injury*.

DAMAGES

[188] Sankavi claims damages to compensate them for the loss caused by Dr. Scheufler's negligence. Those damages are for:

- a. Non-pecuniary damages for pain, suffering and loss of amenities and enjoyment of life;
- b. Loss of future income; and
- c. Costs for future care

[189] Sankavi's mother, father and sister also claim damages under the *FLA* for services they provide to Sankavi, and for loss of her care, guidance and companionship.

Witnesses for the plaintiffs on damages

Sankavi

[190] This case is all about Sankavi and how her *BPI* has impacted her life. Sankavi was called by counsel for the plaintiffs as the first witness. At the time she testified on January 10, 2022, Sankavi was 12 years old.

1. Physical attributes of the injury

[191] Despite her young age, Sankavi gave her evidence in an articulate and comprehensive manner. Alone in the room where she was testifying over Zoom, she answered questions about her right arm, the surgery she experienced and her life with a limited-use extremity. She described that she has a *brachial plexus* injury to her right arm, and how it has affected her shoulder, arm, elbow, wrist and fingers.

[192] Sankavi has also suffered physical and emotional injury causally connect to her *brachial plexus injury* from the two surgeries performed at HSC to retore partial function to the right quadrant of her upper body. These injuries include scarring to her neck and legs, as well as the asymmetry of her right breast.

[193] Sankavi told the court that she has coped with this injury all her life. She also told the court that it has stayed the same, neither improving nor growing worse over the last couple of years.

[194] A number of photographs showing Sankavi standing to show various parts of her body relevant to these claims were marked as exhibits. Sankavi identified each one of those photographs and described them in response to questions in turn. In the course of reviewing the first picture marked as Exhibit E, Sankavi told the court that:

- a. Her shoulders are asymmetrical. Her right shoulder is a bit higher than her left shoulder;
- b. Her right arm is a bit shorter than her left arm;
- c. Her right arm is curved at an obtuse angle, and is not straight;
- d. Her right hand is significantly smaller than her left hand;
- e. Her right wrist hangs a bit; and
- f. Her breasts are different sizes.

[195] In the course of the review of subsequent photographs, Sankavi demonstrated that:

- a. Her left breast is lower, and more developed than her right breast;

- b. Her right shoulder is much higher than her left shoulder;
- c. Her left arm is completely straight and longer than her right arm;
- d. She cannot extend her right arm all the way;
- e. The fingers in her left hand are all straight; on her right hand, the fingers are all bunched together, and she cannot straighten them;
- f. She is not able to extend her right thumb like she can with her left thumb;
- g. She cannot straighten her right wrist as she can her left wrist; she has no movement in her right wrist;
- h. Her right wrist is “hanging.” She cannot open up the palm of her right hand to show her palm;
- i. She cannot straighten her right arm;
- j. She cannot bring her right arm out in front of her;
- k. Her left hand is much bigger than her right hand
- l. There is scarring on the right side of the neck from where Dr. Clarke performed surgery;
- m. There is scarring on the wrist of her right hand where Dr. Clarke performed surgery;

- n. She has multiple scars on the back of both her legs from surgery where nerves were harvested for use in her right arm; and
- o. Scarring also appears on the upper part of her right armpit from surgery.

[196] Sankavi also demonstrated how her left arm is longer than her right arm, and how it can be held straight. In contrast, her right arm is much thinner, and as it is smaller because it is curved in an obtuse angle, it is shorter. Sankavi testified that she can only hold her right arm up to shoulder level, whereas she can reach her left arm straight up.

2. Demonstrable functionality

[197] Of particular note, Sankavi holds her right arm with her left hand when demonstrating the functionality of her right arm and hand because she does not have the power to hold it up. She also holds her right arm to prevent pain if it is extended for a period of time. Sankavi described the difference in dexterity between her left and right hands in the following way:

Q. And can you tell us about a difference in the functionality of your two hands? What kinds of functioning difficulties are there with your hand, in your day-to-day life? Just generally with the hand, though.

A. Okay. So, I can't move all of my fingers like individually. Like, with my left hand, I can move my thumb, pointer, middle finger all separately. With my right hand, I can't do that. The only real movement I have is the ones I showed you, with the thumb movement and bringing everything into my palm. So that's really all the movements I have in my fingers.⁹²

[198] Sankavi was shown various video clips of her engaged in household chores and activities that she encounters on a daily basis. These clips showed demonstrable difficulties Sankavi has performing kitchen activities that she has learned to accomplish with adapted techniques. Other clips showed Sankavi attempting personal grooming activities where she requires assistance. These activities include brushing her hair and manipulating an elastic hair band around a pony-tail.

[199] Sankavi also has difficulty wearing garments with buttons and belts. Putting on socks is something she can do herself, but it takes longer to put them on than it does her sister. She is self-conscious about the clothes she wears, and how wearing a top that exposes her arms makes her uncomfortable as she feels she stands out or will be judged. She has trouble with zippers on coats. She has difficulty closing the clasps on bangles and jewellery, and it makes her sad when she cannot do so.

[200] Sankavi told the court that she cannot engage in the following activities because of her right hand:

- a. She is not able to participate in all of the movements related to her cultural dance. She stated that this made her feel sad because she was not performing with her sister and because it was common for Indian girls and boys to do the dance.
- b. She was sad because her sister could do up her skates and she could not. She explained that she felt left out because all of the other kids put their

skates and gear on by themselves and she needs help – making her stand out.

- c. She also felt sad that she had to take general music instead of an instrumental program with her friends. She described being pretty upset about the fact that she could not play with them.
- d. She was not able to play on the monkey bars with her friends.
- e. She gets sad very often and that she has had to learn to cope with it.

[201] Those video clips were marked as exhibits after Sankavi identified them and gave evidence on what they portrayed.

3. School and related activities

[202] Sankavi described herself as a straight A student, except for music and sports. She was enrolled at David Leeder Middle School in grade 7 at the time of trial. Her school records from elementary school⁹³ show she was given marks of “Good” and “Excellent” in the categories of responsibility, independent work, initiative, organization, collaboration and self-regulation respectively for grades four and five. She was given an “Excellent” grade in all categories on her grade six report cards except for a “Good” mark for initiative on the first report card for that school year. Sankavi acknowledged in cross-examination that she is an accomplished student, and that “Excellent” is the highest mark a student can achieve.

[203] The most recent final report card for Sankavi before trial was her Provincial Report Card for grade six dated June 25, 2021. On that report card, the school had this to say about Sankavi's abilities as a student, generally:

Strengths/Next Steps for Improvement

This reporting period reflects learning that has occurred in a modified learning environment as required by the provincial public health guidelines. The pandemic has resulted in the need for adaptations to teaching and assessment practices. Communication with your child's teacher will provide additional information pertaining to their progress.

Sankavi continues to shine as an independent learner. She always joins our online class ready to learn and completes and submits class work on time. She listens attentively by focusing on the meet, turning on her camera, and actively offering ideas and responds respectfully to her teacher and peers. When finished a learning task, Sankavi is able to determine what the next priority is and gets started on it independently. She completes and submits assessments (e.g., math check-ins) within the time allotted. Sankavi has consistently proven that she is able to organize and manage her time to prioritize tasks for completion during asynchronous work periods. She effectively uses the weekly online agenda and other resources (e.g., Google Classroom, websites, online textbooks, etc.) to complete her tasks.

Sankavi is always willing to take on various roles within a group and demonstrates leadership among her peers when planning and organizing tasks virtually. She consistently completes an equitable share of the work when collaborating in a group. When working in breakout groups or pairs, she actively engages in conversations, screen sharing, problem solving and shares her ideas. Sankavi continues to approach all learning tasks with eagerness, curiosity and a positive attitude. She shows a willingness to take risks and try new ways of showing her learning. She understands the importance of self-advocacy and regularly asks for help or extended timelines when needed. Through the many challenges this school year has presented, Sankavi has persevered and put forth her best efforts in our virtual learning environment. Sankavi should be proud of her accomplishments this term and is encouraged to continue to build on her progress next year in grade 7.

[204] Another video⁹⁴ shows Sankavi using a protractor for math assignments. This video demonstrates the difficulty Sankavi has with holding down the instrument with an elbow while at the same time trying to read what is being measured. In the

same vein, Sankavi described how she finds it a struggle to hold down paper, using a clipboard, cutting with scissors or applying glue when working with arts and crafts.

[205] She takes her own notes at school. Sankavi told the court that her left arm gets tired after taking notes for a long time.

[206] Sankavi still takes vocal lessons as well as classical Indian music lessons. She was taking keyboard lessons on a one-armed keyboard but stopped when the teacher's expectations rose with the levels of musical training. While Sankavi attributes her right arm as a factor for discontinuing this activity, she also states it was mostly because there were other classes she was more interested in. One of the musical instruments she still plays is the recorder, which she uses her left hand to play.⁹⁵

[207] Sankavi explained that there are two programs at school from which students select to learn more about music. One is the general program, and the other is the instrument music program. Sankavi wanted to enter the instrument music program as she thought it would be fun to play instruments with her friends, but she ultimately selected the general music program because of her arm. She testified that making this decision upset her.

[208] Sankavi attends a robotics class, where students assemble LEGO robotics to build robots. She has difficulty with holding the smaller pieces. When it comes time to learn about coding, she will be working with a computer and keyboard. While she

does not anticipate challenges with using the keyboard, she states that she is much slower than the other people in her class who can type with two hands as she can only type with one.

4. Sports

[209] Sports at school present a challenge for Sankavi that she works hard to overcome. She told the court that volleyball is a sport she plays with her friends. When she plays volleyball, she has trouble “bumping” because she does not have control of both forearms to give the volleyball a proper “bump”. With volleying, she can only lift and spread out the fingers of her left hand. The majority of her friends are on the volleyball team at school, and she feels left out because she is not good enough to play on the team.

[210] Sankavi also finds that playing floor hockey is challenging because she cannot hold the hockey stick in her right hand and handling the stick in her left hand is difficult.

[211] Similarly, Sankavi finds basketball challenging, as dribbling, passing and shooting with one hand “aren’t easy things to do.”

[212] Sankavi has taken up other activities that are single-person sports. She can ride a bicycle, which she finds very difficult because of the balance required, and because she cannot hold on to the handles with both hands. She tends to fall a lot.

She has learned to ride a unicycle, which was very hard to learn. As there are no handles, it is all a matter of balance.

[213] Sankavi has also learned to swim. She told the court that swimming is not easy, and while she uses her right arm for a front crawl, most of the work is done on the left side. She is currently at level nine, which is the level where a swimmer starts learning about being a lifeguard. As she has met the requirements for levels one to eight, she tires when she is required to swim for long periods of time, and her left arm becomes very sore.

[214] A photograph of Ragavi in dance attire performing a cultural Indian dance at their temple was entered in evidence.⁹⁶ Sankavi told the court that she cannot do this activity, as much as she would like to dance like her sister. She explained she cannot dance like Ragavi because the dancer is required to execute certain finger movements and wrist movements with rhythm that she is not able to perform. This is an activity in which she still wishes she could take part in.

[215] Even the attire that Ragavi wears for this dancing is unsuitable for Sankavi because of the number of pins and hooks to hold the garments together. Sankavi told the court she would also feel self-conscious wearing cultural attire because the design of the costume would reveal the asymmetry of her shoulders, and the difference in her arms.

5. The Rubik's Cube World Record

[216] Sankavi was asked about achieving the world record involving solving the Rubik's Cube one-handed while hula-hooping. She told Ms. Carruthers that she did so within 50 minutes to beat the previous world record of solving 25 Rubik's Cubes. She agreed that she started learning about the Rubik's Cube in March 2020 at the start of COVID, and the more she practised, the better she got. She set the world record for solving the most Rubik's Cubes by one hand while hula-hooping on August 1, 2021.

[217] Sankavi states that friends had recommended that she apply for a Guinness World Record. The YouTube video where Sankavi solved 30 Rubik's Cubes one-handed while hula-hooping was played at trial.⁹⁷ The CBC covered this accomplishment in a news segment.⁹⁸

[218] Sankavi described how she worked hard to learn how to solve the Rubik's Cube with her left hand, and to hula-hoop at the same time. She stated in evidence that she would not say that this skill has helped her to become a more independent young woman.

6. Grooming and household activities

[219] Ms. Girones took Sankavi through self-grooming tasks she can or cannot execute because of her right hand and arm. Sankavi cannot cut her own nails, apply

lotion to all parts of her body, or open up containers for make-up and to apply that make-up.

[220] Sankavi herself testified about various activities she is not able to participate in because of her injury. For example:

- a. She is not able to participate in all of the movements related to her cultural dance. She stated that this made her feel sad because she was not performing with her sister and because it was common for Indian girls and boys to do the dance.
- b. She was sad because her sister could do up her skates and she could not. She explained that she felt left out because all of the other kids put their skates and gear on by themselves and she needs help – making her stand out.
- c. She also felt sad that she had to take general music instead of an instrumental program with her friends. She described being pretty upset about the fact that she could not play with them.
- d. She told the court that she was not able to play on the monkey bars with her friends and that this made her sad.
- e. She reported to the court that she gets sad very often and that she has had to learn to cope with it.⁹⁹

[221] Sankavi also described difficulties she has when cooking with her mother and sister, and with washing dishes. She can assist her mother with carrying groceries into the house, although she cannot carry a heavy laundry basket up and down the stairs of the house.

[222] Sankavi told the court she has tried to help her father with shovelling snow in the winter, but that she is unable to complete this task because the snow is too heavy to lift once she has it on the shovel. It is generally her mother and father who clear the snow in winter.

[223] Sankavi told the court that she wears eye-glasses. She told the court that she has had an “eye crossing problem” on her right side since she was a young child.

[224] Sankavi also understands that she suffers from scoliosis. This sometimes causes her pain in her spine and on the right side of her back. She finds it difficult to wear heavier backpacks as they cause her pain in the shoulders.

7. Looking to the future

[225] Sankavi has some ideas about what she would like to do in her life. She wants to work in the medical field, but thinks her options are limited because of her arm. For instance, she acknowledges that she would probably need two hands to perform surgery.

[226] Sankavi also expressed concerns about taking care of any children she might have in the future, and observes she would need help. She also foresees requiring accommodations for driving an automobile with one hand.

[227] When cross-examined by Ms. Carrothers, Sankavi agreed that she attends the Brachial Plexus Clinic at HSC where she is treated by Dr. Howard Clarke and his team. That team includes an occupational therapist, a physiotherapist and a social worker. She also has access to physiotherapy and occupational therapy services at her school. Through those supports, she receives different strategies for accomplishing one-handed tasks. As a result, she has received a re-designed hockey

stick to play floor hockey (that did not work out), as well as a weighted ruler to solve her difficulties with the protractor in math class.

[228] Further, Sankavi agreed in cross-examination that Emily Ho, the occupational therapist at the Brachial Plexus Clinic had made a progress note that she had demonstrated age-appropriate skills for activities of daily living (“ADL”).

[229] Sankavi confirmed that she could remember being assessed by Angoe Blazkowski, an occupational therapist, on December 3, 2021. She agreed that any back pain she experiences does not affect any of her activities.

[230] She stated that she is now trying to solve a Rubik’s Cube while riding a unicycle, but she is still mastering the unicycle.

[231] Ms. Carrothers also took Sankavi through various tasks she performed around the home. Sankavi agreed that the family does not use many adapted utensils or surfaces to accommodate her, or modifications to the home for self-cleansing, except for a hand-held shower.

Vasanthy

[232] Vasanthy gave evidence about family life with Sankavi, and her coping mechanisms with her *BPI*.

[233] Vasanthi helps Sankavi in the morning. She testified that Sankavi gets frustrated when she cannot do things herself or that doing something takes a long time.¹⁰⁰

[234] Vasanthi testified that Sankavi gets frustrated when she is not able to do things for herself or if something takes a long time, and that she “gets frustrated and screams.”¹⁰¹

Rathan

[235] Sankavi’s father, Rathan Balasingam, testified about how Sankavi’s injury has impacted her as well as the family.

[236] Rathan testified about witnessing Sankavi’s frustration as a result of her disability and when she cannot assist him in the same manner that Ragavi can, such as when he is working on the car. Rathan testified that he observes Sankavi gets upset “*every day*” depending on what they are doing, and what she is asked to do. He explained to the court that “*every day is a difficult day.*”

Ragavi

[237] Ragavi is Sankavi's older sister. Ragavi testified how she has observed her sister's life is different than her own because her right arm has limited use, and the activities available to her are limited as a result.

[238] Ragavi testified that:

- a. Sankavi gets frustrated when she cannot do the same activities that Ragavi does such as dancing or putting on earrings. In terms of dancing, the traditional cultural dance in Indian and Sri Lankan culture tells a story to the audience with each hand movement and gesture having a meaning which cannot be replicated using only one hand.
- b. It takes Sankavi 1 to 1.5 hours to get ready in the morning compared to Ragavi taking between 30 and 45 minutes. She testified that their mother helps Sankavi in the morning.

[239] Ragavi, gave evidence at trial about the frustration experienced by Sankavi that she has observed when Sankavi is unable to perform or complete activities like others. Sankavi becomes frustrated when she cannot put on earrings herself, or engage in traditional dancing. Dancing is an integral part of the Indian and Sri Lankan culture as the dancer tells a story to the audience with each hand movement and gesture. These gestures and movements have a meaning that cannot be conveyed using only one hand.

[240] Ragavi also testified that it takes Sankavi an hour to an hour and a half to get ready in the morning, which is essentially twice as long as it takes Ragavi.¹⁰²

Dr. David Berbrayer

[241] The plaintiffs called three medical experts on the damages claimed in this case. The first medical expert called was Dr. David Berbrayer.

[242] Dr. Berbrayer is a physiatrist, and in that field of practise, is a physical and rehabilitation specialist. He obtained his medical degree at the University of Manitoba in 1976. He qualified as a physiatrist in Canada in 1985 and in the United States in 1987. He has served full time on staff at Sunnybrook Health Sciences Centre in Toronto since 1988, and as a physiatrist consultant with the Traumatic Brain Injury Clinic at Sunnybrook since 2015. He also served as Director of Outpatient Services in the Physical Medicine and Rehabilitation Medicine Department, at the University of Toronto until 2017.

[243] Dr. Berbrayer describes the role of a physiatrist is to treat the whole person towards a functional outcome, and not any specific part of the patient. His role includes instructing therapists. Dr. Berbrayer also teaches at the University of Toronto.

[244] Dr. Berbrayer was qualified at trial as a physiatrist to give opinion evidence in physical medicine and rehabilitation related to both children and adults, including future care needs. However, the scope of the opinion evidence Dr. Berbrayer was qualified to give with respect to future care needs of an individual is limited to the physical impairments and disabilities of that individual, and the recommendations he makes within his field of expertise for the future care needs of that person.

[245] Dr. Berbrayer commented on Sankavi's lack of sensation affecting parts of her right arm and hand.¹⁰³ Dr. Berbrayer stated that he was also concerned about the potential for Sankavi to develop problems in her left extremity because of overusing it to compensate for her right side.¹⁰⁴

[246] After a full review of Sankavi's limitations to engage in activities of daily living, Dr. Berbrayer provided details on the tasks she might complete with accommodation, or by using her left arm, with difficulty. Dr. Berbrayer's list of these tasks was marked as Exhibit 47 at trial.

Dr. Michel Rathbone

[247] Dr. Rathbone is a neurologist. He earned his medical degree from the University of Liverpool in the United Kingdom in 1966, and a PhD from McMaster University in Hamilton, Ontario, where he holds a tenured position as a full-time professor. He holds a fellowship as a specialist in neurology at McMaster, and sees patients and conducts research in addition to teaching there. He describes his current clinical practice to treat patients who have suffered neuro trauma, head injury, and those suffering main and peripheral nerve injuries.

[248] Dr. Rathbone was qualified as an expert to give opinion evidence in the field of neurology on the issue of damages in this case.

[249] Dr. Rathbone gave evidence about potential orthopedic surgery Sankavi may have on her arm and wrist, as well as her shoulder and elbow.¹⁰⁵ He also remarked on the scarring to her neck and the right side of her armpit from the surgeries performed by Dr. Clarke in 2009 which he described as hypertrophic.¹⁰⁶ Notably, Dr. Rathbone opined that the injury Sankavi suffered at birth, together with the surgery she has endured, has impacted not just her right limb but the upper quadrant of her body.¹⁰⁷

[250] Dr. Rathbone gave a detailed description of Sankavi's deficits from a neurology perspective. He described her as having a "significant weakness of hand and finger muscles, hardly anything", and not having normal rhythm of movement in her right hand and elbow. He further described how she has incomplete muscle development of the right arm due to her lack of "trophic influences of the nerves." Her right arm is different in size, with "multiple weaknesses, and paraesthesia, a tingling and discomfort when touching the arm. In a word, Sankavi's right arm will be a "helper" arm for the remainder of her life."¹⁰⁸

[251] It was Dr. Clarke who testified that Sankavi's breast asymmetry was the result of the surgery he performed to repair the nerves in 2009, and in particular to harvest the three intercostal nerves (T3, T4 and T5) which are the main nerves to the breast.¹⁰⁹ Additionally, Dr. Rathbone noted that Sankavi is diagnosed as having scoliosis. This means her spine is flexing to the left at T7, which is in her mid-back. The scoliosis

impacts her side flexion to the right and also her rotation to the left. Even now, it causes Sankavi pain while sitting. Dr. Rathbone stated that Sankavi would have chronic spinal pain in the future.¹¹⁰ This scoliosis is due to the lack of nerve activity in Sankavi's high thoracic region, being the lower part of the plexus from the alteration of the nerve supply experienced when Dr. Clarke performed surgery to restore some function to the right arm. Dr. Rathbone described how this has reduced the ability of Sankavi's shoulder girdle on the right side to grow properly, which is causing her spine to curve.¹¹¹

[252] Dr. Rathbone described the injury as a "severe pan-plexus lesion for C6 to T1 with a Horner syndrome (ptosis, or droopy eye), and a flaccid right arm. He envisions potential orthopedic surgeries to joints in her arm and wrist, elbow and shoulder in the future, as well as possible breast reconstruction or augmentation. Dr. Rathbone testified that Sankavi's scapula and her breast on the right side are all smaller as the injury and subsequent surgeries have impacted not only the right limb, but the upper quadrant of her body. Photographs were filed in evidence that showed Sankavi's nipple on her right breast was elevated 5 centimetres above the left breast, that her development on each side was different and that her right shoulder itself was 5-6 centimetres higher.

[253] Dr. Rathbone also described how Sankavi has significant weakness of hand and finger muscles. She does not have a normal rhythm of movement in her right

shoulder and elbow, and she has incomplete development of the right arm because of the lack of “tropic influences of the nerves.” The right arm is distinctly different in size from her left arm. Dr. Rathbone opined that the right arm will be a “helper” arm for the remainder of Sankavi’s life.

Dr. Elaine McKinnon

[254] Dr. McKinnon is a clinical psychologist. She was qualified to give opinion evidence as an expert in the field of clinical psychology and clinical nerve psychology.

[255] Dr. McKinnon gave significant evidence of the probability that Sankavi will experience a continuing degree of anxiety associated with her injuries, and her ability to compensate for the limitations in life.

[256] The court also heard Dr. McKinnon testify that she is concerned that Sankavi is developing signs associated with anxiety disorder despite her present age. For that reason, Dr. McKinnon is recommending psychological treatment to address those issues.

Mr. Josh Campbell

[257] Mr. Campbell was called as an expert to provide an assessment on any limitation of employability prospects Sankavi may experience in the future, including the impact of her disability on obtaining and maintaining that work. Mr. Campbell obtained a Bachelor's degree in kinesiology, and a Master's degree in 2007. He was certified as an occupational therapist in 2009 and maintains practice as an occupational therapist. Mr. Campbell has been qualified to give evidence as an expert by courts on employment and loss of competitive advantage issues.

[258] On consent, Mr. Campbell was qualified as a vocational assessor and occupational therapist to give opinion evidence as an expert on Sankavi's competitive disadvantage on her employment prospects over her career.

Jordan Roovers

[259] Mr. Roovers is a Canadian Certified Life Care Planner. In that role, he assesses future care costs and life care needs of individuals who have been injured through a motor vehicle accident or for a medical reason. His task is to project that person's need for the balance of her life, and to project the cost of what goods or services might meet those needs.

[260] Mr. Roovers was qualified to give opinion evidence in the fields of life care planning and kinesiology, or Sankavi's future care needs and associated costs

Ms. Deborah Carter

[261] Ms. Carter is an economist, and has acted as an economic consultant for parties in personal litigation both on the plaintiff side (80%) and the defence side (20%). In 1981, she earned a Bachelor of Arts degree from Wilfred Laurier University in Waterloo, a Master's in Economics from the University of British Columbia in 1982, and was enrolled in course work for a PhD in economics at UBC from 1982 to 1984.

[262] Ms. Carter was qualified as an expert to give opinion evidence on the calculation and present value of future costs of care, future earnings and the statistical analysis of loss of competitive advantage resulting from residual disabilities, and as an economist.

[263] Ms. Carter based her testimony on the updated reports she has written on the present day value of future care, and the statistical analysis of Sankavi's employment prospects over her lifetime. In her evidence based on the report dated November 22, 2021 regarding present day values, Ms. Carter assigned the present value of goods and services determined by other experts that Sankavi may purchase in the future, which she calculated using the discount rate under Rule 53.09 of the *Rules of Civil Procedure*. In her evidence based on the report she wrote dated November 23, 2021. Ms. Carter applied various assumptions to earnings data she obtained from Statistics Canada for workers in Canada, and with specific characteristics comparable to Sankavi.

Witnesses for the defendant on damages

[264] Dr. Scheufler did not call any medical doctors as expert witnesses on damages. The experts he called were Angie Blazkowski, an occupational therapist, Kathy Nezan, a vocational assessor and life care planner, and Professor Douglas Hyatt, an economist.

Ms. Angie Blazkowski

[265] Ms. Blazkowski is an occupational therapist, as well as a Canadian Certified Life Care Planner. She earned an Honours Bachelor of Arts degree in psychology from the University of Western Ontario as a foundational degree.

[266] Ms. Blazkowski was qualified to give opinion evidence in the field of occupational therapy and life care planning, and to provide opinion evidence on matters pertaining to both occupational therapy and life care planning, including Sankavi's future care needs and associated costs.

Ms. Kathy Nezan

[267] Dr. Scheufler called Kathy Nezan to give evidence as a vocational expert. Ms. Nezan is certified to provide vocational rehabilitation, as well as vocational assessments and to provide vocation counselling. She has a Bachelor's degree in Psychology and is also a registered Rehabilitation Professional, recognized by the Vocational Rehabilitation Association of Canada.

[268] Ms. Nezan is also a Canadian Certified Life Care Planner. Since 2012, she has practised as a case manager at Modern OT, where she completes life care plans, vocational assessments and provides vocation counselling.

[269] Ms. Nezan was qualified by the court to give opinion evidence as a vocational expert.

Professor Douglas Hyatt

[270] Professor Hyatt is an economist. He earned his B.A. in 1984 and his Masters degree in 1987, both in Economics, from the University of Toronto, and his Ph.D from the University of Toronto in 1992. He is a Professor Emeritis of the Rotman School of Management and Centre for Industrial Relations at the University of Toronto, where he has taught since 2006.

[271] Professor Hyatt was accepted as an expert and qualified to give opinion evidence at the trial on matters pertaining to the calculation of net present value of future costs of care, future earnings and the statistical analysis of loss of competitive advantage resulting from residual disabilities.

Non- pecuniary damages

[272] Damages in a personal injury case are generally awarded to put the person who has been injured in the position she would have been in had the injury not been suffered.¹¹² The court is guided by three principles when assessing the amount to award for general damages:

- a. awards for non-pecuniary loss are by nature arbitrary and turn on the experience of each person, in terms of physical and psychological suffering;
- b. the amount of the award must be fair, reasonable and consistent with other decisions involving individuals who have sustained similar injuries; and
- c. general damages should not be used as a “top up” but rather should provide an injured person with reasonable solace for their misfortune.¹¹³

Sankavi

[273] When assessing the appropriate amount to award Sankavi for general damages, it is important to bear in mind that the upper limit for those damages was “capped” at \$100,000 by the “trilogy” of cases from the Supreme Court in 1978.¹¹⁴ The Supreme Court subsequently held that the \$100,000 cap imposed by the trilogy is subject to increase in keeping with inflation.¹¹⁵ The upper limit for general damages has grown to \$418,234 as of February 2022.

[274] There is little dispute between the parties that Sankavi suffered a permanent injury at birth. The evidence of Dr. Clarke was conclusive that Sankavi's *BPI* is severe. He told the court that Sankavi had tested zero on the movement scale that measured 15 different movements and demonstrated no movement in the right extremity when she was first brought to the Brachial Plexus Clinic at HSC when she was but a month old.

[275] Dr. Clarke recommended surgery of Sankavi's right shoulder and hand at the time as he saw little, or no, recovery was possible without surgery. He testified that he performed a lengthy surgery on Sankavi to partially reconstruct her brachial plexus. Dr. Clarke gave the following evidence on his expectations in terms of her post-surgery improvement:

"In this situation where many of the roots of the brachial plexus, and particularly the C8 and T1 nerve roots were avulsed, we, we don't expect ever to get a hand that can be used for dexterous or fine activities. ... So we could not expect a hand that could type. We could not expect a hand that could be used, but if we could – in this situation if we could get a hand that could hold an object in space while the other hand did something more sophisticated with it, that would be a good outcome. That would be an assisting hand. It can stabilize an object, it might be able to hold a lift object, but it can't do heavy work and it can't do fine dexterous work. It wouldn't be a hand you could keyboard with, for example. That would be way out of expectations."¹¹⁶

[276] Dr. Clarke identified the precise nature of the injury Sankavi had sustained at birth as nerve root avulsions at C6, C7, C8 and T1, as well as a neuroma at C5. Dr. Clarke would later perform a second surgery on Sankavi on the right wrist, which he described as a "wrist fusion" or a "wrist arthrodesis", to enable Sankavi limited flexibility

for its use. Sankavi also has scarring from surgeries performed by Dr. Clarke to her neck and right arm near her wrist, as well as from the back of her knees and under her right arm where nerves have been harvested for use in that surgery.

[277] Sankavi was also diagnosed with having “scoliosis” where her spine curves to the left at T7 (in the mid-back). This scoliosis has been noted to impact the side flexibility to the right and her ability to rotate on her left, which can cause her pain while sitting and would cause her chronic spinal pain in the future.

[278] There is no dispute between the medical experts that Sankavi has reached the point in her life where there is no prospect of further spontaneous recovery of her right shoulder, arm or hand. There is also evidence that Sankavi’s function will continue to improve if she is to receive supports to her activities, such as occupational therapy, assistive devices and if she continues to learn adaptive procedures.

[279] When assessing the appropriate amount to award for general damages, the court is guided by various principles set out in the authorities. In *Lindal*, the Supreme Court explained that the relevant question is not just how serious the plaintiff’s injuries are compared with other cases, but what function the money could serve in ameliorating the loss. In this way, an award may vary “to meet the specific circumstances of the individual case.”¹¹⁷

[280] The Supreme Court observed in *Andrews v. Grand & Toy* that large amounts for general damages, when viewed from a functional perspective, should not be

awarded once a person is “properly provided for in terms of his (her) future care for his (her) injuries and disabilities.” Any further amount awarded should then be seen as “providing more general physical arrangements above and beyond those relating directly to the injuries.”¹¹⁸

[281] This court in *Coffey v. Cyriac*¹¹⁹ set out the underlying theory for an award of general damages as those that serve to put a plaintiff in as good a position as she would have been in absent the defendant’s negligence. In *Barker v. Barker*,¹²⁰ the court put it this way: “it is important to find a range of compensation that is aimed at remedying the type of injuries that the plaintiffs have actually suffered, and not to borrow from damage awards aimed at remedying an altogether different type of injury or different type of interest infringed”.

[282] The cases relied upon by the parties are not comparable to the claim Sankavi is advancing, in terms of the age of plaintiffs or their injuries. However, the damages are relevant when viewed by analogy in terms of injuries in kind, the age of the plaintiff and the amount awarded, as adjusted for inflation.

[283] Counsel for the plaintiffs seek an award of general damages in the amount of \$325,000 for Sankavi. Those cases that are closest to Sankavi’s facts include:

- a. *MacKinnon v. Grand River Hospital*¹²¹ - the plaintiff underwent surgery to address Thoracic Outlet Syndrome by removing the first rib. The surgery

caused vascular and nerve damage, including to the *brachial plexus*. The court awarded \$175,000, adjusted for today's value to \$233,121¹²²;

- b. *Thornhill (litigation guardian of) v. Shadid*¹²³ – female plaintiff in a motor vehicle accident suffered a series of injuries to her shoulders, ribs, arm and knee. Her arm had mostly recovered after a year. The court awarded \$225,000, adjusted for today's value to \$294,385;
- c. *Robinson v. Williams (Estate of)*¹²⁴ – a 32-year-old male was a passenger of a car that rolled off a road. He was left with the permanent total loss of function of his right arm and hand, as well as chronic pain in his left hand, ankle and back. He also suffered from emotional problems after the accident. The court awarded the plaintiff \$150,000, which can be adjusted for today's value to \$208,325; and
- d. *Hansen v. Williams*¹²⁵ – a female plaintiff suffered a Thoracic Outlet Syndrome injury as a result of a motor vehicle accident. The court awarded \$200,000, which can be adjusted for today's value to \$236,583.

[284] Counsel for Dr. Scheufler rely on several cases that they submit are analogous in nature as guides for the appropriate amount to award for general damages. This approach invites “horizontal comparisons” to reflect the types and context of the suffering of each plaintiff in the comparison, allowing for the seriousness of the injury while giving full consideration to the situation of each affected party. They

submit that the appropriate amount for the court to award for general damages would be \$150,000 with all factors considered.

[285] In *Brown v. Sarnaf*,¹²⁶ the infant plaintiff suffered a *brachial plexus* injury after encountering shoulder dystocia during birth. The *brachial plexus injury* occurred at the C5 to C7 nerves, causing paralysis to the upper arm muscles. This injury included a partial disability involving the plaintiff's left shoulder, arm, and hand. The plaintiff's left extremity was smaller than her right, and she was severely limited functionally. Although she was able to move her arm up and down, the plaintiff could not use her left arm and hand for bi-manual repetitive activities.

[286] After undergoing four separate surgeries, the plaintiff was left with scars on the back of her legs, neck, hands and arms. The plaintiff was categorized as suitable for a "blue collar" vocation, and she exhibited certain behavioral problems. The court in *Brown* awarded \$90,000 in general damages, adjusted to \$145,000 for today's value. Counsel for Dr. Scheufler submit that the impact of the impairment in *Brown* was much more significant than Sankavi's injury.

[287] Counsel for Dr. Scheufler also submitted that the infant plaintiff's injuries in *Butler v. Royal Victoria Hospital*¹²⁷ provide some guidance as an upper limit. In *Butler*, the plaintiff suffered an injury during delivery resulting in ataxic-hypotonic cerebral palsy, low muscle tone, lack of coordination, impaired fine motor skills with hand tremors, impaired gross motor skills, speech delays and certain cognitive and

behavioral deficits. The court awarded general damages of \$250,000, which can be adjusted to \$282,960 for today's values.

[288] There are a number of other cases provided by Dr. Scheufler's counsel where an injured plaintiff was awarded higher amounts for general damages. In several of those cases, the plaintiff suffered injuries that resulted in impairment or disability that precluded traditional educational and employment pursuits.¹²⁸

[289] Dr. Scheufler's counsel also included *Cruz v. Robins*¹²⁹ to show the highwater mark for birth injury cases. The plaintiff had been delivered with the use of mid-forceps, and was macrosomic with a weight of 11 lbs., 2 oz. at birth. He suffered from physical disabilities and a learning disability from his injuries. The court awarded \$250,000 in general damages, which is adjusted to \$339,000 for today's value.

[290] In my view, Sankavi's injuries are more severe than those injuries and resulting impairments suffered by the plaintiff in *Brown*. Sankavi is aware of the unlimited capacity she would have if she was unrestricted in life by her injuries. She has also suffered the loss of cultural and personal activities she cannot participate in because of the limited use of her arm. She is reminded of the limiting nature of her functionality or the aesthetics of her physique every day. However, Sankavi is amazingly resilient and has adapted to her circumstances with a positive attitude.

[291] Sankavi's damages are defined at the upper end of the range by the assessments in *McKinnon* and in *Hansen*, where the court in each case awarded

damages between \$230,000 and \$240,000. Having regard to the subjective factors of the limitations of function and enjoyment of life Sankavi's injuries have caused, I award general damages in the amount of \$225,000 to her in this case.

FLA damages

[292] The principles for the court to follow when awarding damages under s. 61(2)(e) of the *FLA* for the loss of care, guidance and companionship were set out in *Coffey v. Cyriac*¹³⁰ as follows:

- a. For a claim to succeed, there must be an actual loss of care, guidance, and companionship;
 - i. "Guidance" includes such things as education, training, discipline, and moral teaching;
 - ii. "Care" includes such things as feeding, clothing, cleaning, transporting, helping, and protecting another person; and
 - iii. "Companionship" includes the joy of sharing experiences; it is the loss of rewards of association that flow from the family relationship.
 - iv. No damages can be awarded for grief, sorrow, or mental anguish by reason of an injury sustained by a relative;
- b. Each claim must be assessed on its particular facts, although a judge may have regard to:
 - v. the age, mental, and physical condition of the claimant;
 - vi. whether the injured party lived with the claimant and, if not, the frequency of family visits;
 - vii. the intimacy and quality of the claimant's relationship with the injured party;
 - viii. whether or not the claimant is emotionally self-sufficient; and
 - ix. the joint life expectancy of the claimant and the injured party (though this is not relevant to the matters in issue).

[293] These principles were emphasized by the Court of Appeal in *Moore v. 7595611 Canada Corp.*¹³¹ The Court held that each case must be considered in light of the evidence material to the care, guidance and companionship claims in that case, and with respect to the particular family relationships at issue.

[294] Counsel for Dr. Scheufler concedes that Sankavi has a very close relationship with her mother and father. This is an important consideration for a young girl. Dr. McKinnon observed that the Rathan family is a “well-functioning” family and a “loving unit.”

[295] Vasanthi has the greater of the claims under the *FLA* as Sankavi’s mother. As Sankavi’s mother, she is the constant in assisting Sankavi with performing activities of daily living.

[296] At first, Vasanthi could not provide examples of things she can do with Ragavi that she cannot do with Sankavi.

[297] Vasanthi finally offered that Ragavi can help with shovelling snow and with gardening, whereas Sankavi cannot.

[298] Ragavi testified that she does not have specific chores other than cleaning her room and making her bed.

[299] Sankavi is also expected to complete chores such as cleaning her room, folding her own laundry, and taking out the garbage. She goes shopping with her family and helps carry the groceries into the house.

[300] Vasanthi is called upon to assist Sankavi with matters of personal hygiene. She helps her daughter with the application of feminine hygiene products, and to apply deodorant on Sankavi's left armpit. With respect to this latter task, Sankavi testified that she can now apply deodorant to both armpits.

[301] Counsel for the Rathan family submits that members of the family provide support to Sankavi every day. This support includes providing assistance with her personal care, day to day activities of daily living, preparation for school, helping her dress, brush her hair and other assistance that is beyond the care required of a child her age. They submit that Vasanthi has "taken the brunt" of providing this assistance, including a departure from the workforce. Counsel reminds the court that the life care planners gave evidence of the continued reliance that Sankavi will have on her family members going forward. However, it would appear that Vasanthi has gone back to work, which negates that part of the submission that Vasanthi has sacrificed employment for the sake of Sankavi.

[302] The plaintiffs seek the following damages under s. 61(2)(e) of the *FLA* for Vasanthi and Rathan:

Vasanthi: \$125,000

Rathan: \$75,000

[303] Dr. Scheufler's counsel submit there is no evidence that Sankavi's care, guidance and companionship to Vasanthi has been significantly impacted. She continues to nurture Sankavi, and they maintain a close and loving relationship. There is also evidence that Sankavi is developing coping mechanisms to accomplish activities of daily living herself, particularly if assistive devices are available for her to use.

[304] Counsel for Dr. Scheufler suggest modest damages of \$30,000 would be appropriate. They also refer to the authorities to which they referred when dealing with general damages that provide assessments for *FLA* awards to parents. In particular, in *Brown v. Sarnaf* each parent was awarded \$7,500 (adjusted for inflation to \$12,098), with \$5,000 (\$8,065) awarded to a sibling. In *Butler*, the mother was awarded \$50,000 (adjusted to \$56,592 for today's value), with \$40,000 (\$45,273) and \$20,000 to \$25,000 (\$22,636 to \$28,296) to the siblings.

[305] While the loss of Sankavi's care, guidance and companionship is not as great to her family members as the facts in *Butler*, they are significant as accommodations the family makes at home for one member is a change for all members. This extends to the chores each member of the family is expected to do. Having regard to the evidence of the relationship between Sankavi and each parent, and her limitations to

contribute as much as she would like to activities of daily living around the house, I award Vasanthi damages in the amount of \$37,500.

[306] The same cannot be said for Rathan. Rathan testified that he can play catch with both Ragavi and with Sankavi. He also plays volleyball with Sankavi in the park. He was there when Sankavi learned how to ride a bicycle and a unicycle. When he is outside washing or working on his car, Sankavi will join him. Although she can assist him by holding a sponge or small wrenches, she cannot assist him in the same way or to the same extent that Ragavi can.

[307] In view of the evidence, I award him damages under the *FLA* in the amount of \$12,500.

[308] Ragavi and Sankavi have a very close bond as sisters and take part in many activities together. They seek advice from one another and teach each other different things. For instance, Sankavi has taught Ragavi how to hula-hoop and how to solve a Rubik's Cube.

[309] Although Ragavi testified that she makes Sankavi's bed as it takes Sankavi longer to make it, Sankavi has also testified that she can make her own bed. There was evidence given that Ragavi helps Sankavi with her hair in the morning. But Ragavi clarified her evidence on this point that their mother does her hair and that Sankavi comes to her for help if their mother is unavailable.

[310] I find that, despite the inconsistent testimony about how Ragavi may help Sankavi, what Sankavi can do herself, and what their mother may do for her, I find that Ragavi is willingly available to help her sister when she requires help because of her limitations.

[311] The plaintiffs seek a *FLA* award of \$50,000 for Ragavi. Under the circumstances, having regard to all the evidence, I consider \$10,000 to be an appropriate award.

Pecuniary damages

[312] The Supreme Court aptly observed in *Krangle (Guardian ad litem of) v. Brisco* that “damages for cost of future care are a matter of prediction. No-one knows the future.”¹³² The Court went on to recognize that the time of trial is the time when damages must be assessed once and for all, an exercise requiring the trial court to look into the future and to assess damages as best it can by relying on the evidence of what care is likely to be in the best interests of the injured person. The present value of providing that cost is then calculated and any adjustments can be made for contingencies that the future may differ from the evidence given at trial.¹³³

[313] In *Athey v. Leonati*, the Supreme Court held that hypothetical events or future events need not be proven on a balance of probabilities, but rather given weight according to their relative likelihood of occurring. The Court further directed that a future or hypothetical possibility will be considered as long as it is a real and substantial

possibility, and not mere speculation.¹³⁴ In this regard, the law is long settled in Ontario that a plaintiff must show there is a real and substantial possibility or risk of a particular future pecuniary loss with respect to the damages claimed.¹³⁵

[314] In awarding damages under various heads for pecuniary loss, it is just as important for the parties to keep in mind that the purpose of awarding those damages is to award the injured party compensation for the loss caused by that party found liable for causing the loss. It is a balancing of accounts between the person liable for his or her conduct, and the aggrieved for the loss caused by it, according to law. As Dickson J. stated in *Andrews v. Grand & Toy*, an award of damages must be moderate and fair to both parties. Damages for future events or loss, by their very nature, cannot be “complete” or “perfect” compensation. But that compensation must not be determined by the court out of sympathy or compassion for the plight of the injured person, for as Dickson J. reminds, “What is being sought is compensation, not retribution.”¹³⁶

Costs of future care

[315] The principles for awarding costs for future care to a plaintiff can be summarized as follows:

- a. There must be medical justification for the claim;
- b. The award must be fair and reasonable;

- c. The claims must be reasonably necessary, having regard to personal circumstances.¹³⁷

[316] The burden of proof for awarding amounts for future care to a plaintiff is different than it is for awarding general damages. In Ontario, the plaintiff must show only that there is a real and substantial possibility, or risk, of a particular pecuniary loss in the future to justify that cost.

[317] It has also been held that damages for future care costs should not be awarded where the sole function of those costs would be to make the plaintiff's life more tolerable or enjoyable. Future care costs should focus on the medical need for the individual rather than lifestyle considerations, or what would serve the convenience of the plaintiff or her family.¹³⁸ Furthermore, only the extraordinary costs related to the future care of a plaintiff required because of the plaintiff's injuries will be compensable.¹³⁹

[318] The plaintiff has the onus of proving that the extraordinary or extra cost of any superior goods or services claimed are a result of the injuries where those goods and services would have been required in the absence of the injury to justify damages to compensate for that cost.¹⁴⁰

[319] Dr. Scheufler submits that the medical justification for Sankavi's claim for future care costs is flawed because she did not have Dr. Clarke testify as her primary health care professional with respect to the *BPI* with respect to her medical needs and

requirements in the future. However, this was explained by Dr. Clarke himself, who told the court that in his practice, and in the Brachial Plexus Clinic at HSC, he sees only children up to 18 years of age. Individuals 18 years of age and older are generally examined and treated by other healthcare professionals, such as Dr. Berbrayer.

[320] Dr. Rathbone summarized Sankavi's limitations that impair her abilities and require accommodation as "various types of dressing, tying laces and other things, knots of any sort, zippering, a number of self-care activities, sporting activities, other activities of daily lifting; carrying, pulling, pushing, balancing, perching, pushing off on [*sic*] a fixed arm. So, all of those activities would be limited and any activities that required putting a hand behind her back or overhead would be impossible. So, I don't think she'd be able to do - - carry more than two pounds by hooking something over the right arm. And I thought that the problems would continue indefinitely." He also made reference to the spinal curvature associated with the scoliosis that would lead to early degenerative changes to her neck and back, and degeneration to the right shoulder, elbow, wrist and fingers. This would include mechanical pain and associated disabilities.¹⁴¹

[321] Dr. Clarke provided evidence on the tenodesis procedure he performed on Sankavi in 2014 that has a bearing on damages. The purpose of the procedure was to tie or "lasso" the two tendons on the back of Sankavi's forearm to pull her wrist back in a stationary position because those tendons otherwise had no strength. Dr. Clarke

considered this procedure to produce a very good result as it met the objective of holding Sankavi's wrist permanently in a wrist extension position.

[322] In his testimony, Dr. Clarke explained that Sankavi has lost some of that correction over time as the tendons are small because they never had any innervated muscle connected to grow into healthy muscle.¹⁴² Innervated muscles mean muscles that have a nerve connection and have a healthy connection all the way up to the brain so that the muscles can be activated. The muscles the original nerves of the *brachial plexus* that were connected to were disconnected at birth, and by the subsequent surgery. These are denervated muscles until such time as those nerves grow back.¹⁴³ He also stated she may be a candidate for further surgeries on her wrist and hand in the future.

[323] Sankavi's use of her right extremity and the limitations she encounters, and will encounter, because of the injury were documented and costed by Mr. Jordan Roovers, and by Angie Blazkowski. Many of these items, such as one-handed devices that can be purchased immediately on a one-time basis for \$8,000, have been agreed upon. Mr. Roovers and Ms. Blazkowski disagreed on other assisting devices, accommodation and treatment because the underlying limitation of Sankavi's functionality is disputed.

[324] Dr. Scheufler also disputes the necessity of various devices and accommodations to assist Sankavi in view of her limitations because of

inconsistencies in the evidence given by various witnesses at trial relating to those limitations. Evidence of those disputes were set out in a 65-page Chart of Inconsistencies provided by Dr. Scheufler's counsel and filed as Exhibit W when making closing submissions. The inconsistencies highlight the difficulty that Sankavi experiences on a daily basis with her right hand and arm, more because of lack of muscle and dexterity in her wrist and hand than in the limited scope of movement with her shoulder and arm. Specifically:

- a. Functionality of arm: Dr. Rathbone testified that he did not observe Sankavi performing activities of daily living. Sankavi testified that she must hold the right hand up with her left hand because she does not have enough power in her right arm to hold it up. The videotapes¹⁴⁴ show Sankavi reaching the back of her head with the right hand to brush her hair. Sankavi's statement is not inconsistent with her demonstrated ability to provide partial care and grooming for herself.
- b. Grasp: Sankavi and Vasanthi testified that her right arm is weaker, and Sankavi doesn't have the grasp in her right arm to hold anything. Dr. Clarke explained Sankavi's main ability to grasp is limited by not curling her fingers down and holding the object within her fingers. She is able to grasp by bringing her thumb to the side of her hand and pinching that object in place between her thumb and index finger. This way, she is able

to hold light objects. Dr. Clarke advised that she has enough function in her right hand to be able to use it when doing things with her left hand for tasks that normally require two hands. Mr. Campbell reported that Sankavi's hand was minimally functional because she has "very limited ability" to move her wrist and fingers and to grasp objects. She relies on the right hand as essentially a helper to pin things down. She cannot carry out a traditional bi-manual task that requires finger dexterity in both hands. In contrast, Ms. Blazkowski observed that Sankavi placed both hands on the handlebars of a bicycle and on a scooter and could ride them up and down the sidewalk and driveway of her home. Whereas Dr. Berbrayer testified that Sankavi could not hold a paper airplane and fly it around.

- c. Lack of sensation in her right arm: Sankavi reported having not as much sensation on her right arm. Mr. Campbell advised that the family reported to him that Sankavi has difficulty accurately sensing temperature. Jordan Roover testified that Sankavi and Vasanthi reported Sankavi feeling unpleasant sensations in the palm of her hand, and that sometimes her right arm felt colder than her left. Ms. Blazkowski testified that Sankavi would have intermittent numbness in the right palm, and that the right arm often felt colder to Sankavi. However, these symptoms did not interfere with her functionality, but required her to be more mindful when exposed to extreme temperatures.

[325] Sankavi's current ability to function at home, at school and at play is restricted and defined by the limited use of her right arm and hand. The restrictions she encounters in daily life may be lessened by accommodations that may be made through goods and services to relieve them. The respective positions of the life care planners are set out in the chart marked as Exhibit 111. While Mr. Roovers and Ms. Blazkowski could agree that certain future care costs and the costing for those goods and services were compensable, their professional opinions differed in respect of others. Key areas of disagreement included housing modifications, housekeeping and home maintenance, and personal care support. The life care planners also disagreed in certain respects on medical and rehabilitation services, driving costs and childcare.

Positions of the parties

[326] Mr. Roovers assessed Sankavi on two occasions with respect to her needs for future care. He incorporated Sankavi's need for occupational therapy, physiotherapy, psychological services and attendant care identified by Dr. Rathbone, Dr. Berbrayer and Dr. McKinnon in his Future Cost of Care Plan. Mr. Roovers also confirmed the future care plan developed by Laurian Nowitz, a life care planner who was not called as an expert.

[327] The evidence of each Dr. Rathbone, Dr. Berbrayer and Dr. McKinnon is therefore assessable on its own, both in direct and in cross-examination. The plaintiffs submit that the Future Costs of Care report prepared by Ms. Blazkowski was not

reviewed or approved by medical doctors. Instead, Ms. Blazkowski relies on her own experience as an Occupational Therapist and the medical records in evidence.

[328] Mr. Roovers' approach differs from Ms. Blazkowski's views with respect to occupational therapy and assistive devices. Ms. Blazkowski is of the opinion that Sankavi can live independently with very little professional or personal support for most of her adult life, except for additional assistance she may require for raising children. The plaintiffs take the position that Ms. Blazkowski's approach ignores the realities facing Sankavi. She will continue to struggle with activities of daily living, take more time to complete them, and risk overusing her left arm, a concern expressed by Dr. Berbrayer. Dr. Berbrayer has also made the comment on her recommendations for housekeeping and home maintenance that they "did not make medical sense" to him.

[329] Dr. Scheufler puts forward the evidence of Ms. Blazkowski as the reasonable and proper approach for the court to follow in assessing the extraordinary future care costs Sankavi may have as a result of the birth injury. His counsel submit that the plan advanced by Mr. Roovers is "cursory" at best, citing three reasons to take this view:

1. Mr. Roovers' opinion is biased in favour of maintaining consistency with two life care plans the plaintiffs had already received. Those plans were prepared by Ms. Novitch, and were not in evidence. Mr. Roovers often

adopted assumptions from the previous life care plans without any research or critical analysis;

2. Despite his evidence that Mr. Roovers prepared the life care plan in this case specifically for Sankavi's circumstances, it appeared obvious that he included recommendations he includes in all brachial plexus cases he deals with; and
3. He placed more reliance on what Sankavi and Vasanthi informed him about with respect to activities of daily living than what he observed personally when at the home for an assessment. He had difficulty in recalling any tasks he asked Sankavi to perform at the time, none of which was documented in his report.

[330] Based on the evidence given by the life care planners, and Sankavi's limitation of movement based on the evidence, I make the following findings on the costing of goods and services there is a real and substantial possibility Sankavi will require over her lifetime. For each finding I make, I have added the present value of that cost as calculated by either Ms. Carter (at Exhibit 119) or Professor Hyatt (at Exhibit 188), as the case may be, to arrive at the award for the cost of those goods or services awarded.

Housing

[331] The plaintiffs seek the following expenses for adapting housing for Sankavi:

- a. Hand-held shower
- b. Grab bars (for the shower and bathroom)
- c. Bidet toilet seat
- d. One handed kitchen items
- e. Base cabinets and pullout lazy Susan units
- f. Swing up shelving
- g. Wall oven
- h. Heat resistant shelf
- i. Packing/unpacking for five moves over lifetime

[332] There is no medical evidence that supports the purchase of these items. Sankavi has grown up in a house where none of these items are installed or provided, and has adapted well in the family home as she has carried out her activities of daily living. The clinical notes made by Ms. Ho and Ms. Klar at the Brachial Plexus Clinic in 2019 and 2020, reflect that she is “able to perform all tasks well.”

[333] Mr. Roovers and Ms. Blazkowski can agree on an allocation of \$8,000 for the purchase of one handed tools for Sankavi. Mr. Roovers recommends that payment be made as an upfront cost. Ms. Blazkowski recommends that it be paid on the basis that Sankavi will purchase one handed tools at an average cost of \$111.54 annually. This results in a present value, applying a multiplier of 44.8711 (Exhibit 188) of \$5,005.

[334] I agree with Mr. Roovers that the overall cost for one handed tools should be paid and managed by Sankavi and her family. The plaintiffs are awarded \$8,000.

Housekeeping and home maintenance

[335] Mr. Roovers and Ms. Blazkowski did not disagree that housekeeping and home maintenance expenses should be awarded to Sankavi. However, it is the cost of those services on an annual basis to assist Sankavi upon turning 18 years old until age 75, that was a matter of great contention.

[336] The issue of costing comes down to a matter of approach. Mr. Roovers costed these services at market rates, assuming housekeeping services would be required regularly. Ms. Blazkowski relied upon the American Time Use Survey with tables recording the average hours per day men and women spend on primary household activities. Those average times were used to group them together to purchase services to calculate the realistic price for housekeeping services it will cost to assist Sankavi with housekeeping.

[337] I accept the approach taken by Ms. Blazkowski. It is a reasonable approach, and allows the court to assess the costs of housekeeping services on a principled basis.

[338] I award \$1,806.54 annually for Sankavi to purchase housekeeping services from age 27 to age 60, starting in 2036. After applying the multiplier of 22.6504 to calculate present value costs (Exhibit 188), this equals \$40,919.

[339] I award \$3,613 annually for Sankavi to purchase those services from age 60 to 75, starting in 2069. After applying the multiplier of 5.117 to calculate the present value of those costs (Exhibit 188), this equals \$18,488.

[340] A claim for gardening, snow clearing and for handyman services has been made for Sankavi. The present value for those costs totals \$37,943. Ms. Blazkowski has costed the home and property maintenance costs that have a present value of \$15,944.

[341] There is no evidence one way or the other that Sankavi will rent or purchase a single family dwelling, or whether she will reside in a townhouse or apartment style unit. The evidence to date indicates that Sankavi cannot assist her own family with gardening or handle the snow load for snow shovelling in winter. Whether this will inform her choice of housing is unknown. However, to assume that she will not rent or purchase a single family dwelling where she would not have to purchase these services but not to be preclude her from recovering these costs if she does, I award

the midpoint of \$26,943 for Sankavi to purchase these services between ages 30 to 75.

Personal support and care services

[342] An award for personal support and care must be grounded in medical evidence, and the services for which the claim is advanced must be extraordinary in that they are required to compensate the plaintiff to purchase services for tasks that she cannot accomplish herself because of the injury.

[343] Ms. Blazkowski has provided evidence as a life care planner, and with her background as an occupational assessor, about the personal support and care services Sankavi is asking the court to award. These services have been costed by Mr. Roovers, with the present value for each of those costs calculated by Ms. Carter (Exhibit 119).

[344] In my view, it is unlikely that Sankavi will purchase personal support and care services while she is a teenager and living at home. She has the love, care and support of her family, including her mother and sister to call on for personal needs. I am not allowing the claim for attendant care to age 19.

[345] Ms. Blazkowski has not costed services for Sankavi from the ages of age 19 to 65.

[346] Mr. Roovers has costed personal support and care services for Sankavi within this age range. Once Sankavi enters post secondary education, I can reasonably foresee where she may need those services from time to time. I award \$1,456 annually as an average cost for Sankavi to purchase those services from time to time between ages 19 and 60, starting in 2028. This amount is one half of the \$2,912 costed by Mr. Roovers. After applying the multiplier of 30.786 to calculate present value cost (Exhibit 119), this equals \$44,824.

[347] There is also a claim made for Sankavi's personal support and care after age 60 for the rest of her life expectancy. Mr. Roovers has costed that claim at \$47,844 a year, for a present value of \$394,575 (Exhibit 119).

[348] Ms. Blazkowski has also costed the price for the same support services, and the present value to purchase those services for Sankavi, at least from ages 65 to 80, adds up to \$38,111 (Exhibit 188).

[349] I award \$98,643 as one quarter of the estimated present value for the cost of future personal support and care services for Sankavi after age 60, starting in 2069. There is little evidence before the court of the weight to be given to Sankavi's need for personal support and care services after she reaches 60 years of age.

[350] I am not awarding any damages for attendant care relating exacerbations to her injury, or for "special occasions" as there is no medical evidence on which to seek those services.

Medical and rehabilitation services

[351] The claims for payment of medical and rehabilitation services that Mr. Roovers have costed on Sankavi's behalf includes physiotherapy assessments and treatment (from ages 14 to 22, and then ongoing), occupation assessment and therapy, a psycho-vocational assessment, rehabilitation therapy (to age 18, and from age 18 for life), as well as case management and even a gym membership to age 18. This claim for the purchase of those services totals \$160,103.

[352] In contrast, Ms. Blazkowski recommends the purchase of services she has costed for a one time physiotherapy analysis, psychological assessment (at age 16) and cognitive functional capacity evaluation (also at age 16), as well as annual costs for physiotherapy assessment, ongoing physiotherapy, occupational therapy (to age 65), psychological counselling (ages 14 to 22) and psychological counselling from age 22 for life. Ms. Blazkowski has costed all medical and rehabilitation services she recommends at a present value of \$86,011.

[353] I prefer the approach taken by Ms. Blazkowski in costing the medical and rehabilitation services recommended by her. On the contentious point of costs for psychological therapy, I agree with Ms. Blazkowski that a psychotherapist is more appropriate to provide counselling to Sankavi at a lesser cost, yet provide as effective service as the psychologist recommended by Mr. Roovers. What is not in dispute is

that Sankavi requires therapy and counselling as an ongoing professional service, according to Dr. McKinnon. I therefore award the \$86,011 costed for these services.

Transportation

[354] There is no way of knowing what the vehicles of the future may hold or how they will operate. Mr. Roovers has provided costing for Sankavi to receive a driving assessment, driver training and for the vehicles she operates to have adaptations made to meet her needs (every seven years at \$3,000 commencing in 2025, for a present value cost of \$19,282 – Exhibit 119).

[355] Ms. Blazkowski recommends only that Sankavi receive driver training when she turns 17, at a cost of \$200. Ms. Blazkowski stated in evidence that Sankavi should be able to steer a standard vehicle, much like she can ride a bicycle.¹⁴⁵

[356] I award \$1,000 for Sankavi to have an assessment of her driving skills done, and for a driver training course particular to her abilities.

Equipment

[357] Ms. Blazkowski has fairly costed Sankavi's requirements for assistive equipment, and for replaceable breast prosthetics.

[358] I award \$69.71 annually for equipment rental to meet Sankavi's needs, retroactive to 2022. After applying the multiplier of 44.8711, this amounts to a present value of \$3,128.

[359] I also award \$4,001 as the present value of an annual partial breast prosthetic (Exhibit 188).

School and vocational assistance

[360] I allow the claim for vocational counselling recommended by Mr. Roovers as it is not captured in the costing for medical and rehabilitation services awarded. Both Mr. Campbell and Ms. Nezan agreed that Sankavi should be vocationally assessed after she turns 16. I award the \$5,000 costed by Mr. Roovers for that assessment.

Future childcare

[361] I am not awarding a one-time childcare device allowance as those devices are not extraordinary expenses. The purchase of a childcare device, such as a stroller or car seat, would be an expense any parent would incur.

[362] I am also not allowing Sankavi's claim for occupational therapy for childcare. There is no medical evidence to support a claim of that nature.

[363] Mr. Roovers has costed childcare assistance for Sankavi, should she decide to have one or more children, at a present value of \$36, 876 for six years. Ms. Blazkowski has generally costed childcare assistance on an annual basis of \$664.02, characterized as a "parent helper", for a present value of \$17,718 (Exhibit 188). I award Sankavi \$17,718, based on either Ms. Blazkowski's costing, or to provide childcare assistance at the rate costed by Mr. Roovers for three years.

Additional recommendations

[364] Case management - I award \$ 5,000 annually for case management of funds and programs for Sankavi until she turns 18. After applying the multiplier of 5.1648 to calculate present value costs (Exhibit 188), this equals \$25,824.

[365] Transportation to Sankavi's physiotherapy assessment - I award \$11, annually, retroactive to 2022. After applying the multiplier of 44.8711 to calculate present value of these costs (Exhibit 188), this equals \$494.

[366] Transportation to physiotherapy as an ongoing expense - I award \$66 annually, retroactive to 2022. After applying the multiplier of 44.8711 to calculate present value costs (Exhibit 188), this equals \$2,961.

[367] Transportation to psychological counselling for Sankavi (from age 14 to 22) - I award \$198 annually, starting in 2023. After applying the multiplier of 7.9924 to calculate present value costs (Exhibit 188), this equals \$1,582.

[368] Transportation to psychological counselling (lifetime, starting at age 22) - I award \$15.80 annually, starting in 2031. After applying the multiplier of 35.7121 to calculate present value costs (Exhibit 188), this equals \$564.

[369] Transportation to physicians and medical specialists - I award \$48.40 annually, retroactive to 2022. After applying the multiplier of 44.8711 to calculate present value costs (Exhibit 188), this equals \$2,172.

[370] Adapted bras and swimwear – I award \$1,000 as a one-time cost (Exhibit 119).

Post-surgery supports

[371] I award the annual costs for post surgery supports recommended by Ms. Blazkowski totalling \$2,321 (Exhibit 188).

Summary of Future Care Costs awarded

[372] The present value of future care costs awarded to Sankavi can be summarized as follows:

- Housing: \$8,000
- Housekeeping and home maintenance: \$86,350
- Personal support and care services \$143,467
- Medical and rehabilitation services \$86,011
- Transportation: \$1,000
- Equipment: \$7,129
- School and vocational assistance: \$5,000
- Future childcare: \$17,718

- Additional recommendations: \$34,597
- Post surgery supports: \$2,321

Conclusion on Costs of Future Care

I am awarding \$391,593 in present value for those costs of future care that Sankavi has a real and substantial possibility of purchasing because of her injuries. These are extraordinary goods and services she requires pursuant her medical requirements arising from the injury she sustained at birth. This present value includes those Additional Item/Services – Absent Timing shown by Ms. Carter in Exhibit 119 that I have allowed.

Future loss of income

[373] Sankavi seeks damages for loss of future income or loss of competitive advantage for up to 30% of the income she would have earned over her lifetime had she not been injured at birth.

[374] An award for future loss of income is designed to compensate a plaintiff like Sankavi for any provable loss of capacity to earn income.¹⁴⁶ The objective of an award for this loss is to put a plaintiff like Sankavi in the same position she would have been in but for the subject accident.¹⁴⁷

[375] The task of assessing damages for pecuniary loss, such as loss of future income, must be founded on evidence of actual losses of a plaintiff like Sankavi in that they are losses Sankavi may actually incur. The law requires the plaintiff making such a claim to establish there is a real and substantial possibility that a future loss will occur before the court can make an award for future loss of income.¹⁴⁸ While the assessment of damages for loss of future earnings is seemingly speculative, it is a matter of establishing the real and substantial risk of future pecuniary loss that grounds a claim. The greater the risk of that loss shown, the greater will be the compensation.¹⁴⁹

[376] Sankavi's claim for loss of competitive advantage was based on the loss of income she estimates she has a real and substantial possibility of suffering resulting from the injury. The evidence is based on the evidence Mr. Campbell gave in relation to her employability having regard to levels of education she will likely achieve, and the statistics and calculations of Deborah Carter as an economist. In contrast, Kathy Nezan gave evidence on the proper approach to take with respect to Sankavi's claim she has suffered a loss, and Professor Hyatt gave evidence on the statistical data available on the issues as well as his approach to developing a multiplier to quantify the claim over time. The experts all followed the same approach of first determining Sankavi's prospective "without injury" income, and then formulating the appropriate percentage for loss of competitive advantage, if any, to apply to that income.

Contingencies

[377] Both Ms. Carter and Professor Hyatt recognized that any forward-looking analysis must take contingencies into account. In order to reduce any quantification of damages for loss of future income to the practical terms of life, the court must take into account contingencies both positive and negative for the person claiming the projected loss. These contingencies consist of general contingencies that apply to the broader population, and those that apply to the plaintiff specifically. The contingencies that apply generally are most often than not based on studies and statistics, where an evidentiary basis is required to find a specific contingency that is applicable and not speculative in nature.

Use of CSD Data

[378] The use of data harvested from surveys conducted by the Canadian Survey on Disability (“CSD data”) was a matter of debate between Mr. Campbell and Ms. Nezan. Mr. Campbell and Ms. Carter relied on CSD data obtained from Statistics Canada based on a set of criteria requested by Ms. Carter for their opinions. Professor Hyatt considered this data set too broad for the purposes of giving the expert opinion both economists were asked to give.

[379] Counsel for Dr. Scheufler called my attention to the decision of Milanetti J. in *Sherman v. Guckelsberger*¹⁵⁰ in which Her Honour declined to rely upon statistical data from CSD’s predecessor on which the plaintiff relied for lack of an expert to relate

the plaintiff's disability to a specific category of the survey. Similarly, Koke J. made the comment in *Onley v. Town of Whitby* that a vocational assessment would have been helpful to provide evidence to assist the court with making the determination of the percentage of the plaintiff's disability claimed, and the appropriate category in which to assess the plaintiff's loss of income.¹⁵¹

[380] The court in *Onley v. Town of Whitby* also recognized that CSD data should be used with caution, as the data mined from the surveys conducted by CSD is too remote from the particular circumstances of a given plaintiff to provide reliable guidance. (*Onley*, at para. 315) This view, when considered with the remarks of Milanetti J. in *Sherman*, suggest that CSD statistics may not be the most useful or reliable source of authoritative information to apply to a specific plaintiff.

[381] Mr. Campbell, Ms. Carter and Professor Hyatt agreed that there are several issues that make reliance on the CSD data problematic:

- a. The CSD data is not sufficiently customizable to the specific circumstances of Sankavi.²⁶⁷ The CSD data is so large that it is tough to be specific with it. There is no dataset for *brachial plexus* injuries.
- b. The CSD is self-reported data. No medical practitioner reviews the individual to confirm the diagnosis.
- c. It is unknown what limb is injured, how many limbs are injured, the nature of the injury, whether the injury is mild, moderate, severe or very severe. Accordingly, you cannot isolate Sankavi's impairment from the data.
- d. The individuals included in the dexterity group could include individuals with a much more severe disability, such as those that may be quadriplegic or paraplegic.

- e. Individuals who suffer from dexterity and/or flexibility disabilities also tend to suffer from a myriad of other disabilities. You cannot isolate the independent effect of the flexibility or dexterity disability. 65% of individuals who reported pain-related disabilities also reported flexibility disabilities.
- f. The CSD data doesn't allow for the impact of education. This is critical, as we know that the impacts of disability on labour market outcomes are much more muted for those with higher levels of education.
- g. The CSD data does not allow one to identify when the onset of the disability occurred. We are unable to determine whether the disability occurred when the person was young or if they were older. Again, this is a significant issue, as we know that the timing of when a disability occurs plays a critical role in the individual's employability and participation in the workforce.
- h. Any limitations that are identified through the CSD data, may or may not be relevant to the ability to perform a job, as the CSD data is based on activities of daily living, and not actions specific to work.

[382] Ms. Carter relies upon the CSD data to calculate Sankavi's loss of competitive advantage. The CSD data uses parameters that include skill levels, education levels and a consideration of four degrees of disability: mild, moderate, severe and very severe. Ms. Carter obtained income statistics from Statistics Canada for non-disabled income and working income earned by disabled people arising from the set parameters. While no expert testified at trial about the CSD category of disability into which Sankavi would be placed, I find from the facts in evidence that she will be considered in the educational category of earning a Bachelor's degree or a post-graduate accreditation. It is also clear to me that Sankavi would likely not be considered as falling under the mild or very severe categories of disability.

[383] Ms. Carter looked at the CSD statistics for income reductions for individuals with dexterity issues and those with flexibility issues and determined that those

individuals earn 26.1% and 28.7% less income, respectively. While Ms. Carter acknowledged that these statistics and her calculations based on that information have issues, she opined that the CSD data can be used as a guideline for the court.

[384] Dr. Scheufler instead took the view that specific information known about Sankavi should be relied upon by the vocational assessors and the economists for the expert evidence they gave on her employment prospects and the real and substantial possibility of risk to her income potential caused by her disability.

A. Without injury lifetime earnings

Reliance on Gender-Based Statistics

[385] There are three essential issues in dispute between Ms. Carter and Professor Hyatt. The first is the reliance on whether Sankavi's without injury projected income over her lifetime should be considered using gender-based statistics or gender-neutral information.

[386] The degree of Sankavi's disability because of her *BPI* is a significant issue on determining any real and substantial risk of future income loss. The measurement of that loss against the income she would have earned without the injury is another, which raises the issue of whether gender-based, or gender-neutral statistics should be used to measure that loss. Ms. Carter advocates for using gender-neutral statistics, arguing that the gender wage gap is narrowing as time progresses and that Sankavi should not be penalized for being born a female. Any contingencies for life

events experienced by female employees generally can then be deducted as required. Professor Hyatt bases his opinion on gender-based studies and statistics, arguing that those studies and statistics have the contingencies built into the data they provide.

[387] There is a trend in the recent jurisprudence in Canada to exercise caution when considering the use of gender-based statistics when assessing damages. In *McColl v. Sullivan*,¹⁵² Justice Abrioux of the British Columbia Court of Appeal provided the following principles:

In my view, the following principles can be drawn from the above:

a. damages for loss of future earning capacity are to be assessed on an individual basis;

b. gender-based earning statistics may be useful where they can fairly be said to be the most accurate predictor of the lost stream of earnings;

c. however, gender-based earning statistics require caution because they may incorporate bias; and,

d. it may be reasonable, depending on the evidence, for a court to assume a convergence in earnings.

[388] In *McColl*, Justice Abrioux observed that the court is faced with a question of statistical bias, in that it may not be straightforward to determine whether the statistics reflect a bias as opposed to the lifestyle choices of the subject. Despite this challenge to their application to an income loss claim, Justice Abrioux states that gender-based statistics may be used with caution provided they are consistent with the plaintiff's gender, and the reminder that every case will depend on its own facts.¹⁵³

[389] The closing submissions made by Dr. Scheufler in this case place a heavy reliance on the assumption of counsel for the plaintiffs that Sankavi will leave the workforce at various points in her career to have children. This assumption is evident from the claims made on her behalf for the future care she may require at those times.

[390] A submission of this nature must be considered on a case by case basis, having regard to all the other evidence about the individual. In *Vespaziani v. Lau*,¹⁵⁴ Justice Winteringham rejected the approach of imposing a bias based on gender based employment patterns, finding that the female plaintiff had not demonstrated any lesser attachment to employment because of anticipated childcare responsibilities. In that case, the trial judge found that the plaintiff was “a young person demonstrating a strong work ethic and commitment to excellence.”¹⁵⁵ Justice Winteringham ultimately relied upon an “equitable earnings” approach that would not penalize the plaintiff in that case based on her gender.¹⁵⁶ I agree.

[391] The evidence given at trial suggests that Sankavi will obtain skills and a level of education that will enable her to compete in the job market leading to careers available regardless of gender. She has a demonstrated personal drive to accomplish personal objectives, the dedication to excel in school and a commitment to excellence. Her goal to master the Rubik’s Cube, and then setting a world record is a testament to her strength and resolve.

[392] Professor Hyatt agreed in cross-examination that it is true Sankavi has the potential, right out of school, to earn the same as a man. There is no evidence that Sankavi will take significant time off her career for childcare should she choose to have children. I therefore find that it is appropriate for the court to consider the without injury earnings Sankavi would likely have earned but for the injury using gender-neutral earnings.

[393] Based on Sankavi's academic achievements and her internal drive exhibited by her activities in and outside school, it is reasonable to assume that she will continue to excel in her education. Her report cards show an upward trend, with grade six improving on an impressive performance in grade five. This performance is measured in both academic achievement and self-realized values.

[394] Mr. Campbell testified that Sankavi would be capable of post-secondary education at some level. This level of education would likely have been attainable by Sankavi with or without her birth injury.

[395] Ms. Nezan agreed with Mr. Campbell's assessment of Sankavi's educational potential. This will in all likelihood result in Sankavi obtaining a university degree.

[396] The experts differ on their opinion on whether it will take longer for Sankavi to obtain her post-secondary education, with Mr. Campbell stating it will take her longer than the prescribed length of time to complete a degree. However, he also

conceded that universities have programs in place to assist students with disabilities in terms of arranging accommodations.

[397] I find on the evidence that it will not take Sankavi a longer time than any other student to obtain her post-secondary education in her chosen field.

[398] Mr. Campbell and Ms. Nezan also shared the view that it is too early in Sankavi's life for a vocational assessment. This assessment would be more appropriate when she turns 16 years old. By that age, she will better know her strengths and weaknesses, as well as any barriers she may experience because of her limitations at that time.

[399] This trial provided Sankavi with one opportunity to seek damages for the years ahead, even though it is too early to determine precisely what her vocation will be. Therefore, Ms. Nezan organized her potential into four scenarios for which Statistics Canada had census data. These scenarios were used by Ms. Nezan to project Sankavi's without incident income based on what degree she may attain in order to explore her income earning potential associated with those degrees, or as a lawyer. Ms. Nezan grouped Sankavi's educational potential into two groups, where she could earn a Bachelor's degree and a Master's degree, or the occupations of a lawyer and doctor.

[400] Sankavi gave evidence that she wished to ultimately work in the health field. Her aspirations to excel in activities that make her unique and will test her proficiency

both physically and mentally exemplified by setting the world record for solving a Rubik's Cube one-handed while hula-hooping, is evidence that she can achieve what she puts her mind to.

[401] I find on the evidence that there is a strong likelihood that Sankavi will earn a professional degree, which may or may not be a medical degree, but in the health field in any event. This finding is made to allow Sankavi to attain the level and nature of post-secondary education she told the court she aspired to achieving. This finding will enable Sankavi to claim future earnings, and any discount of those earnings on account of her injury, based on a higher level of income.

[402] I do not accept the submissions of her counsel that she might earn a law degree and earn her living as a lawyer as she did not express that career aspiration when she testified. The prospect of Sankavi becoming a lawyer was mentioned in Dr. Rathbone's evidence from something Sankavi had said to him. There was no other evidence given at trial indicating that she might have considered the law as a vocation that may open up a higher range of possible income. The authorities are clear that where an expert relies upon facts that are not established by foundational evidence that is otherwise admissible as the basis for his or her opinion, that opinion will not be acceptable as evidence: *Marchand (Litigation Guardian of) v. Public General Hospital Society of Chatham*.¹⁵⁷

Retirement age

[403] The prospective retirement age for Sankavi is the second ground for disagreement between Ms. Carter and Professor Hyatt. For her analysis, Ms. Carter assumed a retirement age for Sankavi of either 65 or 70 years old. The statistics that Ms. Carter relied upon show that there is a decline in the participation rate in the labour force of Canadian women over 65 years of age.

[404] In contrast, Professor Hyatt provided his opinion that her predicted age to retire would be at either 63 or 65 years old. He stated that the statistics show that the participation rate in the labour force is constant for people between 25 and 54 years of age. This accounts for the impact of early retirement under the ages he has proposed for Sankavi, resulting in a higher participation rate and a lower non-participation rate to yield a higher assessment in Sankavi's case. Dr. Scheufler's counsel submit this is not a step Ms. Carter took. Instead, she considered labour force participation rates declining after age 55, which would bring a projected retirement age for Sankavi to an age below 65.

[405] Professor Hyatt also testified that the higher the education level, the younger the retirement age. This correlation is based on the theory that the greater the education achieved, the more income a person earns from employment, and the better the opportunity to save more, and more efficiently, for retirement.

[406] Dr. Scheufler submits there is no evidence before the court that Sankavi will retire when she is older than 63, which is the average of the five-year range for Canadian women to retire. Conversely, the plaintiffs submit there is no evidence that Sankavi will retire before she reaches 65 years of age. Based on the evidence of Sankavi's drive to excel and to achieve milestones, I find on the balance of probabilities that Sankavi will retire at 65 years of age. This finding is consistent with the prospect that Sankavi will work beyond 63 years of age if she faces delay and deferral in the early years of her career, providing the requirement to catch up during her career. However, I agree with Professor Hyatt that the declining participation rate of females in the workplace after age 63 make it unlikely that Sankavi will work until she reaches age 70.

Methodology for applying contingencies

[407] The third difference between the approaches taken by Ms. Carter and Professor Hyatt to quantify the projected earnings in present value terms is the methodology of their respective calculations. In a word, Ms. Carter provides tables for projected income each year on a full-time, full year employment basis in all four categories from 2034, when Sankavi turns 25 and might presumably enter the workforce as a full-time employee, and 2079 when she turns 70. In each table, Ms. Carter provides a column showing her rate to apply for participation rates, unemployment rates, the adjustment for non-participation and for unemployment and part-time actors to calculate an income adjusted for all labour market contingencies

each year. The rates and adjustments Ms. Carter applies to her full-time full year projected income in each of those years is there outward facing, or external, to show the elements of her calculation.

[408] In earnings during those 10 years as Sankavi moves through life where the contingencies contrast, Professor Hyatt explained in his evidence that he developed a multiplier for each 10-year period that is inward facing in that he essentially builds in those labour market contingencies to the multiplier.

Basis of calculating Sankavi's future income

[409] The basis for calculating Sankavi's potential future earnings was based by Ms. Carter and Professor Hyatt was provided by the 2016 Canada census, and on studies regarding the wage gap based on gender.

[410] Each of these approaches is problematic. Ms. Carter based her analysis on the census statistics where Ontario male earners were considered. Ms. Carter testified that this approach gave a reasonable view of income as the wage gap between men and women is shrinking in the modern labour market. As the data shows that female workers behave differently in the labour market, Ms. Carter adjusted her conclusions based on the raw data for negative labour market contingencies, such as participation rates, unemployment and part-time work.

[411] Professor Hyatt relied on statistics for female only workers as those statistics included consideration for part-time work and non-participation in the work force.

[412] The gender gap between wages earned by men and women was discussed in a study by Martin Turcotte for Statistics Canada.¹⁵⁸ Mr. Campbell acknowledged that the Turcotte study found that women were not distributed across the labour force in the same occupations as men, with men tending to find jobs in the construction and manufacturing sectors. Mr. Campbell agreed that one of the main reasons why the incomes differ between men and women is because they occupy different jobs in the labour market.

[413] Interestingly, Ms. Carter agreed that the studies show that the wage gap may be shrinking as a product of wages declining on the part of working men, not because working women are earning more. Where there is a discrepancy of earnings between men and women, it is likely more because females on average work fewer hours than men because of other demands on their time. Professor Hyatt testified that he agreed with Ms. Carter in this respect, and that women's participation rate in the labour market was consequently less than that of men.

[414] Professor Hyatt gave evidence that if a person's labour force participation rate is lower, that person's years of experience will also be lower. Therefore, men have a higher participation rate based on more years of experience. He stated the corollary based on the Gender Wage Gap Study¹⁵⁹ was also true - that women's higher

likelihood of working part-time still contributed to the existence of the gender wage gap.

[415] In further reference to the Gender Wage Gap Study, Professor Hyatt states that the study reaffirms that women have fewer total years of work experience due to the occurrence of work interruptions, particularly those related to childbearing and family. A significant ramification of work interruption to total work years for women is the difference in years of work experience at each age level, and at each year of age of each stage.

[416] Professor Hyatt acknowledged that Sankavi has the same earning potential as a male. He also testified there is no information to forecast Sankavi's potential labour force participation rate or probability that her part-time work will likely be that of a male.

[417] The plaintiffs submit that the evidence shows the gender wage gap is shrinking, yet the totality of the expert evidence from the economists suggest that any shrinkage is due to declining wages men are earning, and a relatively stable level for wages earned by women. Dr. Scheufler's counsel submit that Sankavi will take time out of the workforce to have children and to raise a family, based on the cost of future care claims made on her behalf.

[418] I find that Sankavi's earning potential should be based on a blended set of data for earnings between men and women. There is insufficient evidence to

determine if Sankavi will have children, take time out of her career to raise a family, or reintegrate into the workforce on a part-time or full-time basis. Relying on a set of statistics based solely on gender provides an unfair restriction on Sankavi's potential earnings. It does not take into account developments in the new economy where workers can earn income from home, while at the same time raising their family or sharing child-rearing and homemaking responsibilities with a partner or other family members.

[419] In the result, I prefer the approach taken by Ms. Carter to use gender-neutral statistics while discounting those calculations for provable contingencies particular to women. This is the approach tacitly approved by the British Columbia Court of Appeal in *McColl*, and in the assessment of damages by this court in *Paxton*.

[420] The difficulty with this approach is that this court has no evidence on what contingencies particular to women there may be in 2034 and beyond. In an admittedly and somewhat arbitrary manner to balance the gender factor, I am therefore applying a ten percent earnings reduction to the CSD data for made earnings to be determine the anticipated income Sankavi would have earned without injury upon entering the workforce with a professional degree. This reduction is similar to the rate used by Eberhard J. in *Paxton*. I also consider this reduction appropriate as a contingency that should be applied in the event Sankavi leaves the workforce temporarily in the early years of her career to have children.

Conclusion on without injury income

[421] I find that Sankavi would earn in the neighborhood of \$2,249,532 for without injury lifetime income until a retirement age of 65 years old, assuming she earns a professional degree and becomes a doctor or medical adviser of some description. This conclusion is reached using Professor Hyatt's methodology to arrive at the without injury income he calculated for Sankavi using female based statistics for 2015, adjusted to 2022 dollars of \$1,968,095 to age 65. Professor Hyatt used this methodology, complete with applying multipliers for every 10 years of Sankavi's working life. He explained in his evidence how he built in all contingencies he discussed in his evidence, to a retirement age of 63 as the first milestone, or age 65 as the alternative.

[422] Professor Hyatt compared full-time female earnings to full-time male earnings in 2015 dollars from the 2016 census, a difference he stated in evidence to be around 27%.¹⁶⁰ Applying that difference to calculate the present value of lifetime earnings in Table 2D of Professor Hyatt's calculation for Sankavi's lifetime earnings without injury, the present value of \$1,968,095 for her without injury lifetime earnings,¹⁶¹ when adjusted upward by 27% becomes \$2,499,480. This amount is the present value of gender neutral lifetime earnings using these variables from Professor Hyatt's evidence. After deducting 10% of that amount for the gender factor, the net becomes \$2,249,532.

[423] This approach has the additional advantage of incorporating the factors Professor Hyatt built into the multipliers he applied on a graduated basis to this income.¹⁶²

B. Assessment of loss of competitive advantage

[424] After assessing the income stream Sankavi could have earned without any limitation due to injury, the court must now determine what amount or percentage, if any, that income should be reduced because of the negligence of Dr. Scheufler. The plaintiffs submit the rate of this difference should be between 5% and 30% of her lifetime earnings. Dr. Scheufler's counsel submits that Sankavi will be as accomplished with her injury as without it, and that there should be no discount to earnings found.

With assistive devices and counselling

[425] Ms. Nezan gave evidence that assistive devices will provide Sankavi with a greater array of functions that will enhance her independence. This in turn will increase the career options available to her.

[426] Ms. Nezan reiterated that Sankavi should not be assessed vocationally until she turns 16 years of age. However, that assessment and vocational counselling to follow will assist her in preparing resumes, sharpening interviewing skills, help with job searches and to apply for universities and jobs.

[427] Mr. Campbell also agrees that Sankavi should have a vocational assessment done when she turns 16 years of age.

Impact of therapy

[428] Ms. Nezan expressed the view that if Sankavi was provided with the opportunity to engage in therapy, her independence with activities of daily living would be increased.

[429] Ms. Nezan also opined that therapy could also potentially expand further employment opportunities. She takes this view having regard to Sankavi's academic achievement to date and her current functional abilities. She testified that if Sankavi followed therapy recommendations, she would find her employment opportunities would expand.

[430] Ms. Nezan testified that, based on her experience working with people with disabilities, once the proper supports are identified and in place, the prospect for success increases substantially. Ms. Nezan therefore concluded that there is no indication that Sankavi will experience a competitive disadvantage.

Higher income relative to higher employment rate

[431] Ms. Nezan relied on literature known as the Turcotte study,¹⁶³ which discussed the importance of higher education to reduce the impact of a person's disability in the marketplace. This outcome includes the probability of employment,

the occupation a person might achieve and the hours of full-time or part-time work they might hold to earn income. In Turcotte, the authors determined that a higher level of education is associated with a higher employment rate, a finding that is true for individuals with and without disabilities and regardless of the severity of the disability. The statistics on an age adjusted basis range from 77% for those individuals with a moderate disability, to 83% with no disability. The Turcotte study also concluded that there is no difference between the likelihood of employment for someone with a mild or moderate disability having a university degree finding employment as compared to an individual who has no disability.

[432] Both Mr. Campbell and Ms. Carter agreed with the conclusion in the Turcotte study that a higher education level attained by an individual will narrow the employment gap between people with disabilities and people without disabilities.

[433] As a result of the evidence of Sankavi's capacity to achieve, including the likelihood she will earn a professional degree, it is likely that Sankavi will encounter the same level of employability as those individuals who do not have a disability competing with her in the marketplace. The Turcotte study also found that full-time female employees with disabilities generally earned 5.2% less income than their peers without any disability. However, Professor Hyatt did not accept this percentage because of the small sample size, and because it was not possible to distinguish graduates with varying degrees of disabilities.

[434] Mr. Campbell opined that Sankavi may encounter delays in completing her higher education because of her birth injury that could disadvantage her in the job market by that delay, or by missed opportunities. He also suggested that she may encounter certain levels of resistance by employers to hire an individual with a disability, although this is more pronounced where manual labour would be required for job performance.

Effect of adapting to affected injury from birth

[435] Mr. Campbell testified about an article referenced as the Postema study,¹⁶⁴ where the subjects were split into two groups. In the first group, participants had acquired the loss of a limb later in life, whereas the second group consisted of those who acquired a limb deficiency at birth. The research in this study showed that those born with a limb deficiency had fewer difficulties with gaining employment than those who experienced the absence of a limb later in life. The study also showed that those born with a limb deficiency had similar rates of employment as those without a disability. The study reasoned that those born with a disability had the opportunity to choose their education and the work that suited their abilities.

[436] Mr. Campbell and Ms. Nezan also referred to the paper known as the Strombeck study, which looked at outcomes for *brachial plexus injuries* and the increase or decrease of their functional abilities on a broad level over time.¹⁶⁵ Ms. Nezan testified that in the Strombeck study, the subjects managed well with

schoolwork that she considers a determining factor for employability and to vocational opportunities. While Mr. Campbell refused to acknowledge that the study related to employability because of the age of the participants, he agreed that using a computer is a skill suited for employment, and that he had considered Sankavi's one handed use of a computer for school when considering her employability.

Competitive disadvantage allocated

[437] Ms. Carter relies on the CSD tables from 2012 provided to her by Statistics Canada on a custom request basis that shows the effect of reported employment income between Canadian women working without a disability and those women working who have a disability. According to the statistics reported, Canadian females between 25 and 64 years of age encountered a reduction for all degrees of disability and levels of education at the rate of 26.1% for those with dexterity disabilities, and 28.7% for those with flexibility disabilities. I note that Ms. Carter could provide me with no percentage reduction that would compensate for a combined flexibility and dexterity disability.

[438] In contrast, Professor Hyatt calculated the possible loss of income if a loss of competitive advantage was established using 5%, 10% and 15% as amounts derived from the present value of female gender incomes for age cohorts to which his multipliers were applied.

[439] The evidence supports a finding that while Sankavi will suffer a loss of competitive advantage that will manifest in a loss of income over her working life, it should be measured in terms of a percentage of the income she would have earned without injury.

[440] After considering the factors relative to the rate for Sankavi's competitive disadvantage because of her injuries, I assess that Sankavi will suffer a loss of 6% to her without injury potential lifetime earnings as a result.

[441] I make this finding based on the literature discussed by Mr. Campbell that the loss of competitive advantage for Sankavi could be as high as 30% and by Ms. Carter that the CSD disability tables from 2012 reported a reduction of 26.1% to 28.7%. Against this evidence, I have the medical evidence from the Brachial Plexus Clinic in Toronto from three assessments in 2019 and 2020 before trial that reflect that Sankavi is coping well with her activities of daily living, and all evidence that shows her continued success in school, sports and extracurricular activities.

[442] Sankavi's loss of income because of any loss of competitive advantage, having considered all the evidence from Mr. Campbell and Ms. Nezan, including studies put to them, leaves me to conclude that there is less loss, if any, the higher the education level of the individual. Mr. Campbell agreed that the Turcotte study found that the loss experienced was as low as 5.2%, which was rounded to 6% during

his cross-examination. Mr. Campbell agreed during that cross-examination that he did not include any articles in his expert's report.¹⁶⁶

[443] Sankavi is a remarkable young woman. Based on her evidence and the evidence I have heard from her about her life to date and from the vocational experts and the economists; I make the following findings on the balance of probabilities:

- a. Sankavi will continue to excel academically. She will graduate from high school and from an undergraduate program at a university. She will in all likelihood obtain a professional degree, with a substantial possibility it will be in the medical field;
- b. Sankavi would have earned a present value of \$2,249,532 over her lifetime to age 65 with her professional degree but for the birth injury;
- c. Sankavi will likely retire at 65 years old, as there is a real and substantial possibility that she will work longer than the current trend for Canadian women to retire; and
- d. There is a real and substantial possibility that Sankavi will lose approximately 6% of her income because she may have a competitive disadvantage in the marketplace due to the injury.

[444] After weighing the totality of the evidence on Sankavi's loss of competitive advantage and making the above findings, I award Sankavi \$134,971 in present value dollars.

PRE-JUDGMENT INTEREST

[445] The plaintiffs are awarded prejudgment interest on general damages and *FLA* damages at 1.2% per year since Sankavi's birth on February 27, 2009. I accept the submission of counsel for Dr. Scheufler that pre-judgment interest should be set at this rate to take into consideration changes in the pre-judgment rate and market-based interest rates since the cause of action arose. I did not hear any submissions objecting to this rate or suggesting any other rate in the alternative from the plaintiffs.

[446] I am awarding pre-judgment interest on this basis as it would be just to do so, having regard to the factors in s. 130(2) of the *Courts of Justice Act* and in accordance with *MacLeod v. Marshall*.¹⁶⁷

CONCLUSION

[447] The parties have settled the subrogated claim of the Ontario Health Insurance Plan for \$90,000. Judgment to go accordingly.

[448] There shall be judgment for the plaintiffs as follows:

a. General damages to Sankavi Rathan:	\$225,000
b. <i>FLA</i> damages for Vasanthi Rathan:	\$37,500
c. <i>FLA</i> damages to Rathan Balasingam:	\$12,500
d. <i>FLA</i> damages to Ragavi Rathan:	\$10,000
e. Present day value of Future Care Costs:	\$391,593
f. Projected Future Loss of Income for Sankavi Rathan:	\$134,971

TOTAL: \$811,564

[449] There shall also an award of pre-judgment interest in the amount of \$48,735 to May 31, 2023, on the \$285,000 awarded for non-pecuniary damages. This pre-judgment interest has been accumulating since February 27, 2009, at the rate of 1.2% per year (for 14.25 years).

[450] If counsel have submissions to make on any corrections or clarification of the mathematical calculations in this decision, including the use of multipliers, they are invited to make written submissions within 14 days of the release of these reasons. The other party shall then have seven days after receiving those submissions to make written submissions in response. Any submissions to correct or to clarify calculations shall not be permitted to seek any change to the findings of fact already made.

[451] Counsel may also arrange a post-trial conference if orders are required to pay all or part of the judgment relating to Sankavi to the Accountant of the Superior Court of Justice until she turns 18 years of age.

[452] Counsel is encouraged to resolve the matter of costs between them. If required, they may arrange a case conference to timetable the exchange of submissions on costs, including any offers to settle, with or without a further hearing.

[453] Post judgment interest on any amount outstanding from time to time under this judgment shall accrue at 6% per year under s. 129(1) of the *Courts of Justice Act*.



Emery J.

Released: May 31, 2023

APPENDIX A

Court File No. CV-15-0599-00

**ONTARIO
SUPERIOR COURT OF JUSTICE**

BETWEEN:

SANKAVI RATHAN and RAGAVI RATHAN, infants under the age of 18 years by their Litigation Guardian, VASANTHY RATHAN, RATHAN BALASINGAM and VASANTHY RATHAN, personally

Plaintiffs

-and-

PETER SCHEUFLER, R. WILLIAMS, MELANIE PAQUETTE, ZOFIA MROZOWSKI, JANE DOE #1, JANE DOE #2 and TRILLIUM HEALTH PARTNERS (MISSISSAUGA HOSPITAL)

Defendants

GLOSSARY OF MEDICAL TERMS

SOGC: Society of Obstetricians and Gynaecologists of Canada.

RCOG: Royal College of Obstetricians and Gynaecologists (U.K.).

ACOG: American College of Obstetricians and Gynaecologists.

Turtle sign: The retraction of the fetal head against the maternal perineum.

Brachial Plexus: The brachial plexus is the network of nerves that sends signals from the spinal cord to the shoulder, arm and hand. The nerves supporting the arm exit the spinal column high in the neck, and those that support the hand and fingers exit the spinal cord column lower down. This nerve complex is composed of four cervical nerve roots (C5-C8), and the first thoracic nerve root (T1). The roots combine to form three trunks. C5-C6 form the upper trunk. C7 continues as the middle trunk, and C8-T1 form the lower trunk. Each trunk splits into a division. Half the division support flexor muscles (that lift and bend the arm) and half the division support the extensor muscles (that straighten the arm and bring it down).

Apgar score: A scoring system that assesses newborn babies' well-being using five different factors: heart rate, breathing, muscle tone, reflexes and skin colour. The newborn baby is given a score between 0 and 2 for each factor, and the highest possible score is 10. The scoring is typically done at 1, 3 and 5 minutes of age.

<u>Apgar Sign</u>	<u>2</u>	<u>1</u>	<u>0</u>
Appearance (skin colour)	Normal colour all over (hands and pink are feet)	Normal colour (but hands and feet are bluish)	Bluish-gray or pale all over
Pulse (heart rate)	Normal (above 100 beats per minute)	Below 100 beats per minute	Absent (no pulse)
Grimace (reflex irritability)	Pulls away, sneezes, coughs or cries with stimulation	Facial movement only (grimace) with stimulation	Absent (no response to stimulation)
Activity (muscle tone)	Active, spontaneous movement	Arms and legs flexed with little movement	No movement, "floppy" tone
Respiration (breathing rate and effort)	Normal rate and effort, good cry	Slow or irregular breathing, weak cry	Absent (no breathing)

Biologic Variability: In the context of Neonatal brachial plexus injury, refers to the susceptibility or propensity for injury and recovery of function in boney, soft tissue and neural tissue.

Avulsion: The nerve of the brachial plexus is torn away from the spinal column.

Rupture: The nerve is torn along its length, but not where it attaches to the spinal column.

Neurapraxia: Occurs when the nerve has been stretched and damaged, but not torn.

Neurotmesis: Complete interruption of the axon, myelin and connective tissues.

Erb's Palsy: A form of brachial plexus palsy that manifests as paralysis of the muscles of the upper arm and shoulder due to an injury to the C5, C6 and/or C7 nerves or the upper and middle part of the brachial plexus.

Klumpke's Palsy: A form of brachial plexus palsy that manifests as paralysis of the muscles of the medial forearm and hand due to an injury to the lower spinal nerves C7 to T1, which results in a palsy including the hand, causing a claw-hand deformity.

Global Palsy: An injury involving all five nerves of the brachial plexus (C5-T1).

Hypoxic Ischemic Encephalopathy: An abnormal neurologic state in the neonatal period arising as a result of inadequate blood supply to the brain, which can result in injury to brain tissue and long-term neurologic impairment.

Horner Syndrome: Constriction of the pupil (miosis) and drooping of the eye (ptosis).

MORE OB Program: “Managing Obstetrical Risk Efficiently”. A program dealing with patient safety improvement and professional development designed for caregivers and administrators in hospital obstetrical units. It is a program that develops the knowledge, skills, attitudes, behaviours and practices that make patient safety the number one priority.

Endogenous Force: Expulsion force applied to the fetus by uterine contractions and maternal pushing efforts.

Exogenous Force: Extraction force applied to the fetal presenting part by the delivering practitioner during delivery.

Lateral Traction: A pulling force (traction) that bends the fetus’ neck by moving the ear toward the posterior shoulder, thereby opening the contralateral angle of the neck and increasing strain on the brachial plexus, sometimes referred to as “lateral bending”, “downward lateral bending” or “downward lateral traction”.

Woods Corkscrew Maneuver (internal Rotation maneuver): An obstetrical maneuver used to assist in resolving the impaction of the anterior shoulder in a baby with shoulder dystocia. It involves the obstetrician placing their fingers on the anterior or posterior aspect of the posterior fetal

shoulder and rotating the shoulder towards an anterior position in the maternal pelvis. The goal is to attempt to rotate the fetal shoulder 180 degrees, rotating the impacted anterior shoulder out from under the pubic bone and allowing the fetus to descend while the rotation is occurring.

Nerve Grafting: When the gap between the nerve ends does not allow for a tension-free repair using the end-to-end technique, a nerve is harvested from another part of the body and grafted into the affected area.

Nerve Transfer: When one end of a healthy nerve is transferred to the site of an injured nerve.

Neurolysis: The surgical dissection and exploration of a damaged nerve with the goal of freeing the nerve from local tissue restrictions or adhesions.

Neuroma: A disorganized growth of nerve cells at the site of a nerve injury which can put pressure on the injured nerve, preventing the nerve from sending signals to the muscles.

Neuroma Excision: When a neuroma is removed and the nerve is re-attached, either with end-to-end technique or with nerve grafts.

Date: November 24, 2020

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CITATION: Rathan et al. v. Scheufler et al., 2023 ONSC 3232
COURT FILE NO.: CV-15-599-0000
DATE: 2023 05 31

ONTARIO

SUPERIOR COURT OF JUSTICE

B E T W E E N:

SANKAVI RATHAN and RAGAVI RATHAN,
infants under the age of 18 years by their
Litigation Guardian, VASANTHY RATHAN,
RATHAN BALASINGAM and VASANTHY
RATHAN, personally

Plaintiffs

- and -

PETER SCHEUFLER, R. WILLIAMS,
MELANIE PAQUETTE, ZOFIA MROZOWSKI,
JANE DOE #1, JANE DOE #2, and TRILLIUM
HEALTH PARTNERS (MISSISSAUGA
HOSPITAL)

Defendants

REASONS FOR JUDGMENT

Emery J.

Released: May 31, 2023

¹ Exhibit 002 - Glossary medical terms

² *Chan v. Tang*, 2012 ONSC 2050, at para. 124; *Bafaro v. Dowd*, 2010 ONCA 188, at para. 31

³ *Hasan v. Trillium Health Centre et al.*, 2022 ONSC 3988, at para. 67; *Tahir v. Mitoff*, 2019 ONSC 7296, at paras. 46-47

⁴ “ALARM” is an acronym that stands for “Advanced Labour and Risk Management.” The ALARM protocol is a course syllabus and periodic instruction circular published by SOGC, and is widely regarded as setting the standard of care in obstetrical emergency situations.

⁵ *Hasan v. Trillium Health Centre Mississauga*, 2022 ONSC 3988

⁶ See generally, the requirements for the admissibility of expert evidence in *R. v. Mohan*, [1994] 2 SCR 9, and *White Burgess Langille Inman v. Abbott and Haliburton Co.*, 2015 SCC 23

⁷ Royal College of Obstetricians and Gynaecologists

⁸ For separate reasons that will follow this judgement, notice of whether Dr. Zaltz would be called or Dr. William Mundle was given earlier than required by the Trial Scheduling Endorsement of Baltman J. dated October 6, 2021

⁹ ACOG for its Report on Neonatal Brachial Plexus Palsy

¹⁰ Transcript of Dr. Clarke, January 19, 2022, at page 8

¹¹ Transcript of Dr. Clarke on January 14, 2022, at page 51 and 52

¹² Transcript of Dr. Clarke on January 14, 2022, at page 70

¹³ Also known as the symphysis pubis

¹⁴ Transcript of Dr. Draycott on January 25, 2022 at page 27-28; Exhibits 174/175: “Obstetrical Lesions of the Brachial Plexus” by J.P. Metaizeau et al, in *Chirurgie Pédiatrique*, 1979, 20:159-163, and Exhibit 70, Guideline No. 42. Shoulder Dystocia, RCOG – December 2005

¹⁵ Transcript of Dr. Draycott, January 25, 2022, at page 29

¹⁶ Exhibit 101, “Comparison in Obstetric Management on Infants with Transient and Persistent Obstetric Brachial Plexus Palsy”

¹⁷ Exhibit 102, “Correlating birthweight with neurological severity of obstetric *brachial plexus* lesions”

¹⁸ Transcript of Dr. Draycott, January 25, 2022, on page 38

¹⁹ Transcript of Dr. Draycott on January 25, 2022, at pp. 33 and 34

²⁰ Transcript of Dr. Draycott, January 25, 2022, page 41

²¹ Transcript of Dr. Arnold, January 31, 2022, page 39

²² Transcript of Dr. Arnold, January 31, 2022, pages 49 and 50

²³ Transcript of Dr. Arnold, January 31, 2022, page 38

²⁴ Transcript of Dr. Allen, February 2, 2022, page 40

²⁵ Transcript of Dr. Allen, February 2, 2022, page 44

²⁶ Transcript of Dr. Allen, February 2, 2022, page 70

²⁷ Transcript of Dr. Allen, February 2, 2022, page 75

²⁸ RCOPS

²⁹ SOGC

³⁰ ACOG is essentially the American version of SOGC, and it also publishes clinical practice guidelines from time to time.

³¹ Exhibit 67

³² Exhibit 68

³³ Transcript of Dr. Gratton, February 17, 2022, page 26

³⁴ Transcript of Dr. Gratton, February 18, 2022, page 18

³⁵ Transcript, Dr. Gratton, February 17, 2022, page 55-56

³⁶ Transcript of Dr. Gratton, February 17, 2022, at page 55

³⁷ Transcripts of Dr. Scheufler on February 14, 2022, Page 76, Line 6 to Page 77, Line 6, and of Dr. Gratton on February 17, 2022, Page 41, Line 22 115

³⁸ June 1998, *American Journal of Obstetrics and Gynecology*, marked as Exhibit 133

³⁹ “Erb’s palsy without shoulder dystocia” by H.F. Sandmire and R.K. DeMott, published in 2002 in the *International Journal of Gynecology and Obstetrics*, marked as Exhibit 138. This study relies to a certain extent on the research of B. Gonik, with whom Dr. Michele Grimm has written extensively.

40 Transcript, Dr. Gratton, February 17, 2022, page 20
41 Journal of Child Neurology, pages 920-923, marked as Exhibit 140
42 Transcript, Dr. Gratton, February 17, 2022, page 21
43 Transcript of Dr. Gratton, February 22, 2022, at pp. 74-75
44 Transcript of Dr. Zaltz, February 28, 2022, page 17
45 Transcript of Dr. Zaltz, February 28, 2022, page 25-26
46 Transcript of Dr. Grimm, March 7, 2022, pp. 68-69
47 Transcript of Dr. Grimm, March 7, 2022, pp. 70-71
48 Transcript of Dr. Grimm, March 7, 2022, page 72
49 *Clements v. Clements* [2012] 2 S.C.R. 181, at para. 8
50 *Snell v. Farrell*, [1990] 2 S.C.R. 311, at pp. 328-330
51 *Jones-Carter v. Warwaruk*, 2019 ONSC 1965
52 *Jones-Carter*, at para. 255
53 In *Armstrong v. Ward*, 2019 ONCA 963, reversed on appeal at 2021 SCC 1
54 *Meringolo (Committee of) v. Oshawa General Hospital* 1991, 46 O.A.C. 260 (C.A.); *Grass (Litigation Guardian of) v. Women's College Hospital* (2001), 200 D.L.R. (4th) 242; and *Kennedy v. Jaskiewicz*, 2003 CarswellOnt 1777 (S.C.), aff'd at 2004 CarswellOnt 4914 (C.A.)
55 *Jones-Carter, and Nessler v. Colliton*, 2008 ABQB 180
56 *Armstrong*, at para. 86
57 Court of Appeal in *Crits v. Sylvester*, [1956] O.R.132, at page 508
58 Dr. Arnold, Dr. Gratton and Dr. Zaltz as to the Ontario standard of care expected of an Ontario obstetrician in 2009, and Dr. Draycott as to the standard in the UK
59 Transcript, Dr. Zaltz, February 28, 2022, page 46
60 Transcript of Dr. Draycott, January 25, 2022, page 29; Dr. Zaltz, February 28, 2022, page 46; Dr. Arnold, January 31, 2022, page 40; and Dr. Gratton, February 17, 2022, page 11
61 Dr. Draycott, at page 29, Dr. Zaltz, at page 46
62 *Rowlands v. Wright*, 2009 ONCA 492 at para. 28
63 *Armstrong*, at para. 128
64 *Snell*, at page 322
65 *Fontaine v. British Columbia (Official Administrator)* [1998] 1 SCR 424
66 *Fontaine*, at para. 27
67 *R. v. Villaroman*, 2016 SCC 33, at para. 30
68 *Wilson v. Byrne*, 2004 CanLII 20532, at para. 23-24
69 *Gilberds v. Sobey*, 2011 ABQB 491, *Lemay v. Peters*, 2012 NBQM 68
70 *Dickie v. Minett*, 2012 ONSC 4474, at paras. 304-307; See also *Fontaine*, at paras. 31-33
71 See *Boutcher v. Cha*, 2020 ONSC 7694 in which the court found that the plaintiff had made out a *prima facie* inference of negligence for the misplacement of the sutures on the plaintiff's bladder and the defendant was found to have no explanation for that placement. See also *Austin v. Bubela*, 2011 ONSC 1958
72 *Kamin v. Kawartha Dairy Ltd.*, (2006) 79 O.R. (3d) 284 (C.A.), at para. 8; *Ediger v. Johnston*, 2013 ONSC 18, at para. 36
73 *Hassen v. Anvari*, 2003 Canlii 1005 (Ont. C.A.)
74 *Chasse v. Evenson*, 2006 ABQB 342
75 Written Submissions, at para. 449
76 [2001] O.J. No. 6085 (SCJ), at para. 10
77 Where the trial judgment was upheld
78 *Hassen*, at para. 1
79 *Hassen*, at para. 14
80 *Hassen* at para. 9
81 *Chasse*, at para.60. 61 and 62. See also *Austin v. Bubela*, at para. 11
82 Examination for discover of Peter Scheufler on June 23, 2016
83 Transcript of Dr. Scheufler, February 14, 2022, at page 78
84 Transcript of Dr. Scheufler, February 14, 2022, pages 78-79
85 Cross-examination of Dr. Clarke, January 19, 2022, at p. 7
86 Transcript of Dr. Scheufler on February 14, 2022, Page 79
87 Examination for discovery of Dr. Scheufler, Page 10, Questions 46, 47 and 48
88 Transcript of Dr. Scheufler on February 14, 2022, Pages 39-40

89 Transcript of Dr. Scheufler on February 14, 2022, Page 79
90 Transcript of Dr. Gratton on February 18, 2022, Page 84, Line 24 126
91 *Hassen v. Anvari*, [2001] O.J. No. 6085, aff'd at [2003] O.J. No. 3543, at para. 10
92 Transcript of Sankavi Rathan's direct examination, p. 18
93 Marked as Exhibit 007
94 Exhibit 18
95 Exhibit 20
96 Exhibit 22
97 Exhibit 21
98 Exhibit 23
99 Evidence of Sankavi Rathan on January 11, 2022
100 Evidence of Vasanthi Rathan on January 13, 2022
101 Evidence in chief of Vasanthi Rathan on January 11, 2022
102 Evidence of Ragavi Rathan on January 13, 2022
103 Dr. Berbrayer, January 18, 2022, page 30
104 Dr. Berbrayer, January 18, 2022, page 79
105 Transcript of Dr. Rathbone, February 7, 2022, page 59
106 Dr. Rathbone, February 7, 2022, at page 26
107 Dr. Rathbone, February 7, 2022, at page 27
108 Dr. Rathbone, February 7, 2022, page 36
109 Dr. Clarke, January 14, 2022, at page 100
110 Dr. Rathbone, February 7, 2022, at pages 27, 28, 31, 38 and 40
111 Dr. Rathbone, February 11, 2022
112 *Lindal v. Lindal*, [1981] 2 S.C.R. 629, at para. 634
113 *Higashi v. Chiarot*, 2021 ONSC 8201, at para 132 and *Nicholson v. Shreve*, 2014 ONSC 3158 at paras. 34-36
114 *Arnold v. Teno*, 1978 CanLII 2; *Andrews v. Grand & Toy Alberta Ltd.*, 1978 CanLII 1; and *Thornton v. School District No. 57 (Prince George) et al.*, 1978 CanLII 12
115 *Lindal*, at para. 643
116 Evidence of Dr. Clarke on January 14, 2022, page 44
117 *Lindal*, at page 637
118 *Andrews v. Grand & Toy Ltd.*, [1978] 2 S.C.R. 229 at page 262
119 *Coffey v. Cyriac*, 2020 ONSC 6411, at para. 148
120 *Barker v. Barker*, 2021 ONSC 158, at para. 25
121 *MacKinnon v. Grand River Hospital* [2007] O.J. No. 2504
122 According to the Inflation Calculator: Bank of Canada
123 *Thornhill (litigation guardian of) v. Shadid* [2008] O.J. No. 372 - SCJ
124 *Robinson v. Williams (Estate of)*, 2005 ABQB 659
125 *Hansen v. Williams* [2014] O.J. No. 689, aff'd at 2014 ONCA 118
126 *Brown v. Sarnaf*, 1998 CarswellOnt 3545 - SCJ
127 *Butler v. Royal Victoria Hospital*, 2017 ONSC 2792
128 *Paxton v. Ramji*, 2006 CanLII 9312, where the plaintiff was born with malformed ears, hearing impairment, facial paralysis impacting the ability to speak, and global developmental delays; and *Randall v. Lakeridge Health Oshawa*, 2009 CanLII 6840, where the plaintiff suffered a birth injury during delivery resulting in significant debilitating injuries, limiting movement and communication skills.
129 *Cruz v. Robins*, 2006 CanLII 25538, aff'd at 2008 ONCA 53
130 at para. 159
131 *Moore v. 7595611 Canada Corp.*, 2021 ONCA 459, at para 28
132 *Krangle (Guardian ad litem of) v. Brisco*, 2002 SCC 9, at para. 21
133 2002 SCC 9, at para. 21
134 *Athey v. Leonati*, 1996 CanLII 183, at para. 27
135 *Graham v. Rourke*, 1990 CanLII 7005 (Ont. C.A.), at p. 12
136 *Andrews v. Grand & Toy*, at p. 242
137 *Higashi v. Chiarot*, 2021 ONSC 8201, at para. 246
138 *Ellsworth v. Singer*, 2016 ONSC 4281, at para. 266
139 *Ellsworth*, at para. 78

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- ¹⁴⁰ *Haji v. Infinity Health Centre*, 2012 ONSC 5077, at paras. 220, and 222-223
- ¹⁴¹ Dr. Rathbone, February 7, 2022, at pages 41, 58-59
- ¹⁴² Transcript, Dr. Clarke, January 14, 2022, page 78
- ¹⁴³ Transcript, Dr. Clarke, January 14, 2022, pp. 78-79
- ¹⁴⁴ At Exhibits 6 and 10
- ¹⁴⁵ Transcript of A. Blazkowski, March 14, 2022, at page 45
- ¹⁴⁶ *Boucher v. Wal-Mart Canada Corp.*, 2014 ONCA 419, at para. 102
- ¹⁴⁷ *Higashi*, at para. 206
- ¹⁴⁸ *Schrump v. Koot et al.*, 1977 CanLII 1332 (Ont. C.A.)
- ¹⁴⁹ *Graham v. Rourke*
- ¹⁵⁰ *Sherman v. Guckelsberger*, 2008 CanLII 68165
- ¹⁵¹ *Onley v. Town of Whitby*, 2020 ONSC 20, at para. 314
- ¹⁵² *McCull v. Sullivan*, 2021 BCCA 181
- ¹⁵³ See also *Paxton v. Ramhji*, 2006 CanLII 9312. In *Paxton*, Eberhard J. examined the claim for damages, including for pecuniary loss, suffered by the plaintiff even though the action was dismissed on a finding that the defendant physician had met the standard of care expected of him. In assessing damages, Eberhard J. used gender-neutral statistics but deducted 10% to take gender-based wage disparity into account. The facts in *Paxton* were dramatically different as the trial judge found that the infant plaintiff would likely not be able to follow in some of the patterns, and choices may be denied to the plaintiff due to her “cluster of challenges.” Eberhard J. referred to this approach as using “blended statistics with a deduction for contingencies.”
- ¹⁵⁴ *Vespaziani v. Lau*, 2021 BCSC 1361
- ¹⁵⁵ *Vespazian*, at para 256
- ¹⁵⁶ See also *Walker v. Ritchie*, 2003 CanLII 17106, per Brockenshire J. at para. 135, aff’d at 2005 CanLII 13776
- ¹⁵⁷ *Marchand (Litigation Guardian of) v. Public General Hospital Society of Chatham*, (2000), 51 O.R. (3rd) 97 (C.A.)
- ¹⁵⁸ Turcotte “Persons with Disabilities and Employment” – December 3, 2014, marked as Exhibit 88
- ¹⁵⁹ Exhibit 121
- ¹⁶⁰ Transcript of Professor Hyatt, March 17, 2022, at pages 45-46
- ¹⁶¹ Table 2D of Exhibit 191
- ¹⁶² As Professor Hyatt testified that amounts to which multipliers are applied may be calculated up or down mathematically
- ¹⁶³ Exhibit 88
- ¹⁶⁴ Exhibit 87, Postema - Upper Limb Absence – Predictors of Work Participation
- ¹⁶⁵ Transcript, Mr. Campbell at page 33, Strombeck – Long term follow-up of children with obstetric brachial plexus palsy – functional aspects, Exhibit 85
- ¹⁶⁶ Transcript, Josh Campbell, January 28, 2022, at page 103
- ¹⁶⁷ *MacLeod v. Marshall*, 2019 ONCA 842