Case Name:

Crawford (Litigation guardian of) v. Penney

Between
Melissa Crawford, by her Litigation Guardian Jeanette Crawford, Jeanette Crawford and Barry Crawford, plaintiffs,
and
Dr. Brian J. Penney, Dr. Greg Healey, Dr. Gary O'Neil and Smiths Falls Community Hospital, Dr. Martin Gillieson, J. Plunkett and Dorothy Clark, defendants

[2003] O.J. No. 89

[2003] O.T.C. 16

14 C.C.L.T. (3d) 60

Court File No. 2465/94

Ontario Superior Court of Justice

Power J.

January 15, 2003.

(321 paras.)

[Quicklaw note: Supplementary reasons for judgment regarding defendant's motion to re-open the trial and admit further evidence were released January 15, 2003. See [2003] O.J. No. 116.]

Medicine -- Liability of practitioners -- Negligence or fault -- Standard of care -- Prenatal care -- Obstetrical or gynaelogical care -- Failure to provide care to patient -- Failure to refer -- Failure to diagnose an illness -- Damages -- General damages -- General damages for personal injury -- Pain and suffering, loss of amenities and other nonpecuniary damages -- Impairment of earning capacity -- Calculation and method of assessment, life expectancy -- Future care and treatment -- Cost of services -- Loss of guidance, care and companionship -- Special damages -- Nursing costs -- Cost of home repairs or alterations -- Cost of equipment.

Action by Melissa Crawford against the defendant physicians Penney, Healey and Gillieson for damages for medical malpractice. The action was brought by Crawford's mother Jeanette. Penney was a physician who practised family medicine in Smith Falls. Healey also practised family medicine. Gillieson was an obstetrician who was located in Ottawa. He provided tertiary consultative services to many hospitals in the region. Jeannette came from a family that had a history of diabetes. She also had weight problems. In December 1981 she told Penney that she wanted to start another family with her fiancee. At the time she was 39 years old. Penney claimed that he pointed out all the risks of a pregnancy at her age. Jeanette testified that she was not fully informed of the risks. If she was informed that she could have a large baby, she would have elected to have her pregnancy managed and her baby delivered at a location that had better facilities than those available in Smith Falls. Jeanette learned she was pregnant with Melissa in May 1983. Penney was aware of the risk of diabetes during Jeanette's pregnancy. Penney managed the pregnancy. He never suggested that the baby should be delivered at a tertiary care centre with more experienced personnel. Jeanette was a compliant patient who followed Penney's advice and recommendations. During the pregnancy Penney was not aware when and to what extent the fetus became large for its gestational age. He continuously felt that Jeanette's weight gain and that of the baby were appropriate. Penney was not aware of gestational diabetes, despite Jeanette's weight gain. He did not arrange the appropriate tests for this condition. Penney claimed to have consulted with Gillieson during the pregnancy. Penney admitted Jeanette to hospital on December 21, 1983 because of concerns about her blood pressure. On December 26 Penney decided to induce delivery the next day. Penney consulted with Healey prior to the induction. This was required by hospital policy. Healey's opinion was that the size of the baby was normal. He did not conduct a physical examination on Jeanette. A non-stress tests performed on Jeanette prior to the induction showed that the baby's fetal heart rate was normal. The induction was commenced on December 27. After Melissa's head delivered at 9:55 pm her shoulders became impacted in the birth canal. Her condition was known as shoulder dystocia. She was not fully delivered until 10:10 pm. By then she was born dead and it was necessary to perform resuscitation procedures on her at a larger hospital. Healey was involved in the delivery when Penney could not extricate the baby. Melissa's birth weight was 4,950 grams. She suffered oxygen deprivation while she was impacted and sustained permanent and disabling brain injuries. At the time of the judgment Melissa was 19 years old. She required total care. Melissa was able to see, hear and respond to sounds. She was prone to respiratory infections. She could not grasp things with both hands. Melissa communicated with eye gaze, kicking with her left foot and leg and through a picture book. She developed three successive bouts with phenomena since 1994 and had to be hospitalized. She could not breathe in a sitting position and had been prone since 1994. She spent the majority of her time in a moveable hospital bed. She had abnormal movement patterns. Melissa could only be fed through a G-tube in her stomach. She could not be left alone at night without a monitoring system. There was a risk that her secretions would build up and she would choke on them. Melissa's cognitive abilities were limited

HELD: Action allowed against Penney and Healey. The action against Gillieson was dismissed. There was no evidence that Penney consulted with Gillieson. The court preferred the testimony of Jeanette over Penney. Jeanette had gestational diabetes. The harm that Melissa sustained was caused

by the negligence of Penney and Healey. It was the reasonable consequence of the conduct of these two physicians. This negligence caused Melissa's injuries. The doctors did not adhere to the proper standard of care. Both doctors should have been aware, in 1983, that shoulder dystocia was associated with macrosomia. Macrosomia was associated with maternal obesity, gestational diabetes or diabetes. Penney failed to recognize that he lacked the skill or experience to care for Jeanette's pregnancy. He should have been aware that the delivery was beyond his competence. Both physicians were aware that the hospital lacked the facilities to provide intensive care to a distressed neonate. Both physicians ignored warning signs that Jeanette had diabetes during this pregnancy. Penney made extensive use of ultrasound technology in 1983. However, he failed to employ it in the management of this pregnancy. Penney was negligent in that he failed to conduct the appropriate tests to determine if Jeanette had gestational diabetes. Both physicians failed to consider a caesarean section as an alternative to a vaginal birth. Penney failed to ensure that Healey was properly briefed about the risk factors in Jeanette s pregnancy. The physicians failed to formulate a proper action plan in the event that shoulder dystocia occurred during the delivery. Healey was negligent because he did not physically examine Jeanette when he was consulted about the induction. Melissa was awarded non-pecuniary damages of $280,000, subject to an additional amount for inflation. Melissa's life expectancy was 35 years from her upcoming birthday, for a total life expectancy for 54 years. Melissa would never be gainfully employed. She had a total loss of earning capacity. The court estimated her annual income at $36,900. This was based on the earning capacity and intelligence of her parents and siblings. Melissa would have retired at age 60. There were six lost years for which the court assessed a 30 per cent deduction. An award for future care was made for an amount that would provide her with adequate reasonable care for the rest of her life. This included 24-hour nursing care from a registered practical nurse. Melissa's parents wanted to move to Kingston to be closer to their children and grandchildren. However, the defendants did not have to bear that burden. The court awarded $175,000 to renovate the home to make it suitable for Melissa's needs. Specific annual awards were made for items that Melissa required for her care. Melissa's parents devoted themselves to her care since her birth. They also made personal and financial sacrifices. The mother made a claim for loss of income due to her early retirement. She would have worked an additional five years, if not for Melissa's special needs and the decline of her health in 1994. Each parent was awarded $80,000 under the Family Law Act for loss of Melissa's guidance, care and companionship. Both parents were awarded $375,000 for the time they devoted to Melissa's needs. No award could be made under the Act for lost income because an award could not be made both for services provided and lost income.

Statutes, Regulations and Rules Cited:

Courts of Justice Act, ss. 127, 130.
Family Law Act, R.S.O. 1990, c. F-3, s. 61, 61(2)(a), 61(2)(d), 61(2)(e).
Ontario Rules of Civil Procedure, Rules 53.09, 53.10.

Counsel:

Richard J. Sommers, Q.C. and Robert Roth, for the plaintiffs.
Domenic Crolla, Daniel Boivin and Eric Lay, for the defendants.

[Quicklaw note: A corrigendum was released by the Court January 27, 2003. The correction has been made to the text and the corrigendum is appended to this document.]

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OHIP
Pre-Judgment Interest

COSTS

POWER J.:--

INTRODUCTION

1 Melissa Crawford, who is now almost nineteen years old, was born at the Smiths Falls Hospital on December 27, 1983. During the delivery, unfortunately, she sustained catastrophic injuries. After her head delivered, Melissa's shoulders became impacted in the birth canal, resulting in a deprivation of oxygen, which caused a permanent, and disabling brain injury.

2 I accept Dr. Perlmans' (a pediatrician/neonatalogist called by the Plaintiffs) description of the cause of the injuries, which Melissa sustained at birth - hypoxic ischaemic encephalopathy. According to him the hypoxic ischaemic encephalopathy was caused by shoulder dystocia, the obvious cause of which was excessive birth weight, which was caused by untreated diabetes in pregnancy. I further accept his evidence that Melissa has athetoid or extra-pyramidial cerebral palsy. He testified that Melissa suffered brain injury, which was due to asphyxia just prior to birth, and that the asphyxial insult was what is described as acute near-total in character. In addition, Melissa suffered a right brachial plexis injury and a fractured right clavicle. There is no reliable evidence to suggest that there had been any injury to Melissa prior to her delivery. She was healthy and viable.

3 Melissa's family alleges that her injuries were caused by the negligence of the Defendant physicians Penney, Healey and Gillieson. The Defendants, on the other hand, say that the injuries were not the result of any negligence but, rather, were the result of an emergency that was not and should not have been foreseen - i.e. it was an extraordinary event and, therefore, not predictable. They say further that when presented with the emergency, they undertook reasonable and expeditious efforts to attempt to avoid the disaster that ensued. The quantum of damages, as well as liability, is also in issue.

4 In determining the result in this action I have considered the testimony, which includes lengthy conflicting opinion evidence from numerous experts, given over fifty-seven days of trial, the voluminous exhibits including numerous extracts from medical texts and articles, and the submissions of counsel. I have concluded that, on a balance of probabilities, the Plaintiffs have proven their case against Drs. Penney and Healey, but not against Dr. Gillieson, a specialist whose opinion was allegedly sought by Dr. Penney. Indeed, the Plaintiffs' primary position is that Dr. Gillieson was not consulted by Dr. Penney. The claim against Dr. Gillieson is that, if he gave advice to Dr. Penney, the advice was, in the circumstances, negligent. As will be noted later in these reasons, I have concluded that the evidence does not establish that the alleged December 21, 1983 contact between Drs. Penney and Gillieson concerning Mrs. Crawford's pregnancy actually

occurred.

5 This finding renders it unnecessary for me to determine the legal obligation (i.e. duty of care) allegedly owed by Dr. Gillieson to the Plaintiffs. It is the position of the Defendants that the alleged contact between Drs. Penney and Gillieson was what is known as a "hallway conversation" or "corridor consult" and that such a conversation, even if an opinion is expressed and relied on, does not give rise to a duty of care for the person or persons whose care is being discussed. Notwithstanding that I am not required to rule on this question, in the circumstances of this case, had I concluded that a conversation did, in fact, take place and had I concluded that the advice given by Dr. Gillieson was negligent, in the absence of a clear disclaimer, I would have had no difficulty in concluding that a physician owes a duty to provide advice that meets the relevant standard of care and that a duty of care does, indeed, exist. In other words, I have serious doubts that there is, as the Defendants argue, a class of consultation known as a "hallway conversation" or a "corridor consult" attached to which there is no duty of care in favour of the patient for whom the advice or opinion is sought. I do not agree with the proposition of law to the contrary in Reynolds v. Decatur Memorial, 277 Ill. App. (3d) 80 (1996), 660 N.E. (2d) 235 (1996) or with the other American cases relied on by the Defendants. However, I wish to make it absolutely clear that, having found that the evidence does not establish such a conversation having taken place, I make no finding whatsoever on the quality of advice allegedly given by Dr. Gillieson in response to the information allegedly provided to him by Dr. Penney.

6 This action had earlier been dismissed against the Defendants, Dr. Gary O'Neil, Smiths Falls Community Hospital, J. Plunkett and Dorothy Clark. None of them gave evidence at the trial of this action.

7 The determination of this action is complicated by a number of factors. Firstly, the relevant standard of care, of course, is that which existed in 1983, some nineteen years ago. I heard lengthy testimony from numerous medical experts regarding the state of knowledge of the medical profession concerning a number of matters in 1983, especially with respect to gestational diabetes. Secondly, there are a number of credibility issues that require determination. Needless to say, after the passage of nineteen years, memories were not as reliable as they might otherwise have been. Thirdly, the professional medical services were performed in a rural setting and it is submitted on behalf of the Defendants that the court must take regard of this reality in arriving at a decision concerning the appropriate standard of care. The Plaintiffs' position is that the Smiths Falls Hospital was not an appropriate facility within which to manage this difficult pregnancy and, further, that Dr. Penney should have referred Melissa to specialists for treatment at a tertiary care center.

8 It is my finding that this obstetrical catastrophe could have been avoided, for the reasons below.

THE PARTIES

9 Jeanette Crawford and Barry Crawford were born on, respectively, December 28, 1942 and April 19, 1953. They were married on January 30, 1982 and presently reside approximately three

miles outside of Smiths Falls. They moved there in 1987. Smiths Falls lies between Ottawa and Kingston. They live in a three bedroom bungalow of prefab construction. There is no garage. The location of the home is not their first choice. Their preference is to live near Kingston in order to access professional resources for Melissa and to be near their other daughter and grandchildren. Presently, the family travels to Ottawa for medical treatment and related services.

10 Mrs. Crawford left school after completing Grade 10; however, a few years ago she returned and completed Grade 12. In 1994 she took a leave of absence because of a downturn in Melissa's health. Until then she had been employed as a counselor at the Rideau Regional Centre assisting with the care of developmentally handicapped adults. She worked in the "total care ward", which involved bathing and feeding patients. She elected early retirement in 1995, at the age of fifty-one, in order to stay at home to care for Melissa on a permanent full-time basis. By that time, she had put in twenty-nine years of continuous service at the Centre. Indeed, this was the only job she had ever held. I accept her evidence that her decision to take time off and then retire was a consequence of her not being able to cope with both the extra care responsibilities with respect to Melissa and her outside employment. Had it not been for demands on her, she would have remained gainfully employed until at least the year 2000. She earned approximately $42,000 per annum at the time of her retirement.

11 Barry Crawford, at all relevant times, was employed as a janitor at Hershey Canada. In 2001 he earned approximately $35,000. He attended high school, or trade school, for three years.

12 Mrs. Crawford gave birth to her first child of an earlier marriage, Maureen, in 1966. Antenatal Record 1 (see Exhibit 1, Tab 2) indicates that this pregnancy went to full term and that Maureen weighed 6 lbs. 7 oz. at birth following a "duration of labour" of three days. Maureen was born at the Smiths Falls Hospital and the delivery was vaginal. Forceps were used. Maureen possesses a diploma from St. Lawrence College and from Kingston Community College in Business Administration. She has two children and is employed at Queen's University.

13 Mrs. Crawford gave birth to her second child, Ken, in 1971. Again, the pregnancy was a full-term one; however, Ken's birth weight was 9 lbs. 10 oz. following a "duration of labour" of four hours. The delivery was vaginal and took place at the Carleton Place Hospital. Ken has obtained a diploma in Behavioural Science Technology from St. Lawrence College. He is a behaviour therapist at Surrey Place in Toronto where he works with children.

14 The Defendant, Dr. Brian J. Penney, is a family physician who has practiced family medicine in Smiths Falls since January 1975. He was born in Newfoundland, but moved to England in the early 1950's and was educated in England. He obtained his medical degree at the Royal Free Hospital, a college of the University of London, in July 1970. For four to five years following that, he worked and studied in various aspects of family medicine including general and neonatal paediatrics and obstetrics. During this training period, he witnessed, participated in, and performed a wide variety of deliveries. He also witnessed several births where there was some delay with the

delivery of the babies' shoulders. These were situations where delivery was accomplished within a few minutes of the initial difficulties. He described these as not being anywhere as extreme as the problems that were encountered during Melissa's birth. Dr. Penney also received training in anaesthesia although he did not obtain any particular formal qualifications in that area.

15 Following the aforesaid training, he worked for a couple of months in a general practice following which he moved to Bermuda for six months to practice emergency medicine. He then returned to the United Kingdom and took up a post in anaesthesia for approximately one year.

16 Dr. Penney and his family moved to Smiths Falls in late 1974 and he commenced his family practice in early 1975. His practice area was broad and covered hospital practice, emergency medicine, anaesthesia, assisting in the operating room, and paediatrics, with a heavy emphasis in obstetrics. Initially, he participated in about fifty to sixty deliveries per year. There were no resident obstetricians in Smiths Falls between 1975 and December 1983 when Melissa was born. Family physicians looked after the obstetrical work. Dr. Penney and his colleagues handled a wide variety of obstetric cases. Caesarean sections were handled by local general surgeons at the Smiths Falls Hospital, which, between 1975 and 1983, handled approximately three hundred deliveries per year. There was "an informal department of obstetrics" at the Smiths Falls Hospital. The general practitioners who performed obstetrics would discuss obstetrical matters at their monthly meetings. Both Drs. Penney and Healey have acted as Chief of Obstetrics. This post was mainly an administrative one.

17 Dr. Healey received his medical degree in 1977, and completed two years of post-graduate training in family medicine leading to a CCFP diploma. This included training in obstetrics and gynaecology. Following this, he began practicing medicine in Smiths Falls and became involved in the management of pregnancy. Between 1979 and 1983 he managed between fifty and one hundred pregnancies per year.

18 Dr. Gillieson, an obstetrician, obtained his medical degree in 1968. In 1983 he was the Director of the Obstetrical Ultrasound Section at the Ottawa General Hospital. That hospital had a specialist Neonatal Intensive Care Service and provided tertiary consultative services to many hospitals in the region. He testified, "we made ourselves available at all times for consultation" and "we welcomed referral of appropriate patients to our hospital". The hospital also ran continuing education programs and invited doctors from local hospitals to attend. Dr. Gillieson knew Dr. Penney professionally and socially. The social relationship, however, ended in 1980 or 1981.

THE RELEVANT FACTS

19 Dr. Penney testified that sometime in 1981 or 1982 a supply of Ontario Antenatal Record forms 1 and 2 arrived at his office. He was not sure of their source. However, his evidence was that he began to utilize these forms in lieu of the forms he had personally developed. Their use was not mandatory. He testified that all Smiths Falls doctors began to utilize the new forms. Notwithstanding this, the physicians did not uniformly complete the forms. In his words there were

"significant variations". Dr. Penney used these forms/records in his care of Mrs. Crawford's pregnancy.

20 On the back of both records there is a form entitled "A GUIDE TO PREGNANCY RISK GRADING". The form advises the physician to give "your assessment of pregnancy (fetal plus maternal) risk according to the following grade system" at each antenatal visit. The form notes that "this risk grading system is intended as a basis for planning the ongoing management of the pregnancy". Grades A, B, and C are attributed to the various risks or lack thereof. Grade A relates to a pregnancy "at no predictable risk". Grade B is attributed to a "pregnancy at risk". The form explains the Grade B rating as follows:

> The fetus and/or mother may be at risk and consultation should be considered with a specialist obstetrician in your area. In addition, consultation with an appropriate internist may also be necessary. These patients may be managed by continuing collaborative care and delivery in an obstetrical unit with intermediate level nursing OR they may be returned to the care of the referring physician with a suggested plan of management for the remainder of the pregnancy. (underlining added)

21 The relevant risk factors include:

Diabetes, Class A (Gestational) or Class B

Hypertension without toxaemia

Maternal obesity (20% > ideal B.Wt.)

Mild Toxaemia

22 Grade C is a "pregnancy at high risk". The form defines high risk as follows:

> Pregnancies which are so complicated that the fetus and/or mother are obviously in danger. If at all possible these patients should be transferred to a Regional perinatal Center (Level III) for intensive care and delivery ... (underlining added)

23 Grade C lists specific risks. At the bottom of the form, the following appears in a box, "Two or more minor risk problems can combine to produce a high-risk pregnancy risk. Such a patient may deserve to be placed in a higher risk category".

24 I find that, pursuant to the guide, Mrs. Crawford's pregnancy should initially have been graded as a Grade B or "pregnancy at risk".

25 On the front of Record 1, in the bottom right-hand corner, is a box entitled "Risk Grade". Dr. Penney did not complete this part of the form. I accept the evidence lead on behalf of the

Defendants that, notwithstanding the form, many physicians did not complete this particular box.

26 Also, on the front of Record 2 is a graph entitled "Symphysis Fundus Height (SFH)". I also accept the evidence lead by the Defendants that, again, many physicians in 1983 did not use this graph. The following instructions are contained in a box to the right of SFH chart "Measure symphysis fundus height at each antenatal visit and record on graph opposite".

27 Notwithstanding that there was an uneven or inconsistent use by physicians of the risk grading system, I find that it is a useful tool to assist in the Court's determination and appreciation of the risks that Mrs. Crawford was facing and the applicable standard of care. As mentioned, she fitted initially, within the definition of "pregnancy at risk" and, because two or more of the risks set out in Grade B are pertinent, she may have qualified to be placed in the pregnancy at high risk category. I note the evidence that these records have been amended and that, indeed, the new forms contain more space for risk assessment comments. The evidence as a whole, establishes that while it may not have been necessary to complete all parts of these records, it was important to ensure that all risk factors were recorded somewhere.

28 I conclude that, notwithstanding Dr. Penney's obstetrical experience, in Mrs. Crawford's case, an early consultation with a specialist-obstetrician should have been arranged. Dr. Penney, in my opinion, overestimated his ability to deal with this risky pregnancy. I find that, as the months passed, the need for a consultation with a specialist-obstetrician became greater. Accordingly, I reject the evidence of the defence experts to the contrary on this issue.

29 On April 12, 1977 Mrs. Crawford (then Mrs. Hamilton) consulted Dr. Penney for the first time. A history was taken. Dr. Penney's recollection and documentation indicate that Mrs. Crawford's mother was a diabetic. Mrs. Crawford was feeling unwell. Her urine was tested and some sugar was found in it. Mrs. Crawford asked Dr. Penney whether she was a diabetic. He sent her for a random blood sugar (also known as a random plasma glucose or a random blood glucose). A report came back the same day indicating that her blood sugar level was normal. However, Dr. Penney decided to go one step further and he ordered a three-hour glucose tolerance test (GTT) since he was aware that the most common cause of sugar in blood for someone her age was diabetes. When the GTT results were received they were within the normal range and Dr. Penney concluded that she did not have diabetes. They discussed the problems she continued to encounter with her weight. She advised Dr. Penney that she was not taking a prescribed appetite suppressant because of its undesirable side effects. Dr. Penney advised her to attend Weight Watchers. She advised Dr. Penney that she had encountered weight problems during most of her life.

30 Mrs. Crawford's evidence was that, when her history was initially taken by the nurse, she told the nurse that her father, as well as her mother, had diabetes. She told this to the nurse either at that time or in January 1981. However, no notation was made in the history to that effect. Notwithstanding that her father's diabetes was not recorded on Mrs. Crawford's chart, I find as a fact that, indeed, Mrs. Crawford would have furnished, and did furnish, that information at Dr. Penney's

office.

31 The next relevant meeting between Dr. Penney and Mrs. Crawford was on January 19, 1981 when she underwent a physical examination. Again, a history was taken by his office nurse whom, incidentally, was not called to testify. Mrs. Crawford's chief complaints were dizziness, pins and needles in her left arm, and obesity. Dr. Penney's evidence is that he reviewed the history with Mrs. Crawford to ensure its accuracy. As aforesaid, I am satisfied that Mrs. Crawford revealed the fact that her father was a diabetic. There appears to be absolutely no reason for her not to have revealed it. He advised her to diet and prescribed another appetite suppressant. By this time, Mrs. Crawford had tried Weight Watchers but the program, insofar as she was concerned, had not been successful. Dr. Penney ordered a urinalysis, which did not reveal the presence of any glucose or protein. A "fasting glucose" was also ordered and Dr. Penney found the results to be within normal limits.

32 However, a blood test showed that her triglycerides were somewhat elevated. Dr. Penney ordered another test, which came back with a reading of 208. This result was still outside the norm. Therefore, he referred her to an endocrinologist at the Ottawa Civic Hospital - Dr. Poznanski. Dr. Poznanski, in turn, referred Mrs. Crawford to a dietician.

33 Dr. Penney met with Mrs. Crawford again on March 3, 1981 and noted that she was losing weight rapidly. He, again, prescribed the appetite suppressant.

34 On April 8, 1981, Dr. Poznanski reported to Dr. Penney that he, Dr. Poznanski, noted a tendency to obesity but indicated that she was free of all symptoms. I observe that this note from Dr. Poznanski indicates that Mrs. Crawford's father died at age fifty-nine because of "MI" and that "mother is 55 suffers from diabetes mellitus." Dr. Poznanski noted that she weighed 157 pounds and that she was five feet tall but "proportional". He also noted that her urine showed a trace of protein but said that this was normal. When Dr. Penney examined her at this time, he concluded that she had an abnormality in her lipids in her blood, which he concluded, was associated with both her diet and her weight. However, there were no symptoms of diabetes.

35 Dr. Penney saw Mrs. Crawford again in May and June 1981, and noted a weight loss. He prescribed the continued use of an appetite suppressant and referred her to the dietician at the Smiths Falls Hospital. In a September 1981 visit, Dr. Penney noted that her weight had stabilized and that she was not then taking the appetite suppressant. He learned that she planned to marry Barry. Dr. Penney testified that, by this time, he believed that the doctor/patient relationship was a good one.

36 At her December 11, 1981 appointment, Mrs. Crawford told Dr. Penney that her wish was to start another family. Dr. Penney observed that this was a major decision for her and he discussed with her the risks of pregnancy at her age (she was about to turn 39). Dr. Penney's evidence was that he told her that there were dangers flowing from a late-life pregnancy to both the mother and the baby. He testified "I described that all the complications of pregnancy were increased in women of this age group compared to what the risks were at an earlier time in life." He said that he recalled

mentioning genetic abnormalities and Down's syndrome, in particular. His evidence was that he told her that her fertility would be reduced. Notwithstanding this discussion, Mrs. Crawford indicated that she still wished to become pregnant. Dr. Penney dictated the following note to her chart:

> Is getting remarried and wants to start another family. She is 39, she has been advised the risks of pregnancy, the risks of fetal malformation. She has been advised the availability of amniocentesis and the most rapid way of getting pregnant.

37 Mrs. Crawford, in her evidence, denied that Dr. Penney ever indicated that all of the risks were increased in older women other than to point out that there was a higher risk of Down's syndrome. Mrs. Crawford testified that had she known of the risks of something going wrong, especially the risk associated with having a large baby, she would have decided to have her pregnancy managed and the baby delivered at a location with better facilities than those available at the Smiths Falls Hospital. I accept her evidence and conclude that while there was a discussion between her and Dr. Penney concerning risks, she was unaware of the details of the risks save for Down's syndrome. I accept Mrs. Crawford's evidence that Dr. Penney told her that "it was harder for an older women to get pregnant sometimes" and that if she became pregnant, he would order an amniocentesis. In cross-examination, Dr. Penney admitted that he could not recall the specifics of this conversation. When confronted with his examination for discovery transcript, he conceded that he could speak only about what he might have done on that occasion.

38 In January of 1983, Mrs. Crawford learned that she was pregnant. She visited Dr. Penney and complained of a large mass in her right breast. Dr. Penney prescribed floxacillin and referred her for an ultrasound. In addition, he spoke to a breast surgeon, Dr. Devitt, and arranged an appointment with him. Dr. Devitt's report was not definitive. However, the floxacillin appeared to be effective.

39 In February of 1983, Mrs. Crawford advised Dr. Penney that she had encountered three episodes of vaginal bleeding and that she had been admitted to the Smiths Falls Hospital on an emergency basis. Dr. Penney referred her for an ultrasound, which noted some concerns. On February 16th she miscarried after being admitted to the Smiths Falls Hospital.

40 Mrs. Crawford saw Dr. Penney on February 21st, 1983 at which time she was quite anxious and depressed since the pregnancy had been a much-wanted one. She explained that the marriage was her second one and that her husband was much younger and had never had children but very much wanted them. She queried Dr. Penney about the possible use of a fertility pill. He told her that it would be inappropriate to prescribe a fertility pill because of possible negative side effects. Instead, he asked her to wait and see.

41 In May 1983, Mrs. Crawford again became pregnant - this time with Melissa. On May 12th, she visited Dr. Penney and underwent her first formal pre-natal visit. The recording of information on Ontario Antenatal Record 1 was begun. Dr. Penney's nurse, in consultation with Mrs. Crawford, completed most of the information on the written record. In particular, the nurse noted Mrs.

Crawford's menstrual history, obstetrical history, medical history and the details of the initial physical examination. The nurse also checked for allergies, smoking and alcohol use habits, exposure to x-rays and so on.

42 The estimated date of confinement (E.D.C.) was incorrectly stated to be December 8, 1983. Dr. Penney, in his evidence, speculated that the error was a typographical one. Notwithstanding his evidence that he reviewed with Mrs. Crawford, in detail, the information on hand in Antenatal Record 1, he did not notice the error at that time. He did not note the error until receipt of an ultrasound report. The error, he discovered, resulted from a misapprehension about the date of conception. Her due date was revised to January 2, 1984 plus or minus 4.7 days. According to Dr. Penney, Mrs. Crawford told him that her pregnancies were uneventful. As a result of his detailed review, Dr. Penney, testified that he was aware of Mrs. Crawford's prior normal pregnancy in 1966. He was also aware that she had a female baby which went to full term, and that "she had a long and desolutary labour without getting into hard labour". He also stressed that he was aware of the fact that she had had a second pregnancy in 1971 and had given birth to a full-term boy who "delivered much more easily" - in four hours and without forceps. He testified that "this obstetrical history had demonstrated that Mrs. Crawford had managed to deliver a pretty substantial baby of 9 lbs. 10 oz. in four hours without any assistance, and no problem."

43 Dr. Penney testified that he had discussed, with Mrs. Crawford, her family history. There were two issues in particular - the fact that her mother was a diabetic which, he said, he already knew and, secondly, that her father had had a heart attack. As aforesaid, I have found, as a fact, that Mrs. Crawford would have and did mention to Dr. Penney's nurse the fact that her father was also a diabetic. Dr. Penney's evidence was that he did not know that her father had diabetes. I find that he should have been aware of this information because it should have been recorded and that he should have considered it. I observe, however, that, even without this finding of fact, I would have reached the same conclusions I have reached regarding Dr. Penney's negligence. Dr. Penney's evidence was that he knew that Mrs. Crawford's mother had suffered from diabetes in her teen years and was quite a severe diabetic - he felt that she had type 1 diabetes. Dr. Penney's evidence was that the family history of diabetes "made me aware that there is a possibility that Mrs. Crawford might develop diabetes in pregnancy and that I would be aware of that and watch for it." Therefore, ignoring the confusion with respect to the knowledge of Mrs. Crawford's father's diabetes, Dr. Penney was aware of the risk of diabetes during her pregnancy.

44 Dr. Penney testified that he told Mrs. Crawford that her diet was important and that she should continue to follow it. At this time, Dr. Penney noted that Mrs. Crawford had regained most of the weight she had earlier lost. He was concerned that this might put her at some increased risk.

45 Dr. Penney was asked why he did not complete the "architecture" part of the Antenatal Record 2 at that time. His answer was, "I had already done a previous pelvic exam on Mrs. Crawford. I knew that her pelvic architecture was within the normal range and she had confirmed that with her obstetric history of having delivered a 9 lbs. 10 oz baby in four hours. I felt that it was unnecessary

to record it, it was apparent."

46 He testified that her height (five feet) was somewhat on the short side, but still within the normal range. He said, "in view of her previous obstetric history, didn't appear to indicate any major significance." He went on to say that she had "demonstrated in spades that she could deliver a large baby easily." It would appear that Dr. Penney maintained this initial opinion/conclusion throughout notwithstanding other developments during the pregnancy which, in my opinion, should have had an impact on his thinking and planning. Dr. Penney testified that he did, indeed, note that there was a significant difference in weight between her first and second babies. His evidence was that he "noted it" but "did nothing very much more than that." According to him "it is not uncommon for women to have that sort of difference in the weight of their babies." It is, however, significant.

47 Dr. Penney referred Mrs. Crawford to a genetic counsellor. He also sent her for some "investigations", being blood work and ultrasound. A "random blood sugar" test was performed and the results were 5.3. Dr. Penney noted that this was lower than normal. I pause to note that Dr. Penney was, in 1983, a physician who made use of ultrasound techniques.

48 Dr. Penney did not complete the "Risk Grade" box on Antenatal Record 1. His evidence was that he left this box blank because "it is apparent that I am well aware of the risks associated with Mrs. Crawford" and "didn't feel it was necessary to complete that box." His evidence was that he did not routinely fill in that box.

49 Dr. Penney's evidence was that, as a result of their first consultation concerning this pregnancy, Mrs. Crawford was well informed about this "new venture." He was satisfied that she had considered the risks and was comfortable in accepting them "and that these risks were perhaps slightly above average." He said that he intended to continue to monitor her condition carefully. With respect to his decision to take on this pregnancy on his own, he noted that they had elected to see him and that "she could have, by herself, chosen to go and see an obstetrician for primary care during pregnancy. A large number of obstetricians in 1983 were accepting self referrals from patients for primary care in pregnancy ...". Dr. Penney testified that, on this occasion, he reviewed, with Mrs. Crawford, his policies - i.e. "she always had a choice to transfer to an obstetrician if she wished, but that it was if she developed any concerns. I also wish to reserve the possibility of referring her to the obstetrician, myself, for further care." His cross-examination revealed that all of his evidence about her preferences was speculation and assumption on his part. He had no specific recollection of anything she said about this, although he did recall her indicating that she had transportation difficulties. In fact, the family had two cars at the time.

50 In arriving at my findings of fact I am required to make credibility findings. My conclusions concerning Dr. Penney's credibility are based on the following circumstances:

(a) In some instances, Dr. Penney's evidence at trial contradicted the answers he gave at his examination for discovery,
(b) In several instances, his testimony was at substantial odds with his own

record keeping and that of others,

(c) While it is apparent from a consideration of his testimony as a whole that he did not have a good recollection of the detail of the events, he, nevertheless, went into considerable minute detail of what he said transpired, and, in particular, what happened during the delivery,

(d) Notwithstanding that he did, indeed, contemporaneously, record some events in detail, there was no recording of the alleged conference with Dr. Gillieson. I do not accept Dr. Penney's explanation that no recording was made because the conversation was medically irrelevant,

(e) His testimony about the reasons why he gave up the practice of obstetrical deliveries was contradicted by his letter of resignation addressed to Dr. Healey,

(f) Dr. Penney demonstrated a tendency to state events as facts he recollected rather than as conjecture which they were frequently demonstrated to be, and

(g) Dr. Penney's evidence of some events was contradicted by Mr. and Mrs. Crawford whose evidence I accept.

51 His evidence was that Mrs. Crawford seemed to be comfortable with his care in having him deliver the baby at the Smiths Falls Community Hospital. He said "she also indicated at some point in the pregnancy that she would have preferred to avoid the somewhat impersonal atmosphere of other hospitals that were not in her community." I find this is more impression than recollection.

52 Mrs. Crawford's evidence was that she was advised by Dr. Penney that he would be looking after her during her pregnancy. She testified that when she asked him whether she should consult anyone else, he replied in the negative but said that if any difficulties arose he would contact another doctor. She said that there was no discussion between them concerning the involvement of an obstetrician during that initial period or at any time during her pregnancy. Dr. Penney failed to honour this undertaking. I accept her counsels' submission that she was a compliant patient who was prepared to follow her physician's advice and recommendations.

53 Dr. Penney did appreciate, based on her medical history, that Mrs. Crawford's pregnancy carried some risks. She had an increased risk of developing hypertension in pregnancy, an increased risk of developing diabetes at a later age, an increased risk of miscarriage, an increased risk of the development of macrosomia in the fetus, and therefore, an increased risk of shoulder dystocia. "Macrosomia", or "fetal macrosomia", are terms used to describe an abnormally large baby. The terms are not consistently defined but usually mean a baby weighing more than 4,000, 4,250, or 4,500 grams. "Dystocia" means a pathologic or difficult labour, which may be caused by an obstruction or constriction of the birth passage or abnormal size, shape, position, or condition of the fetus. "Shoulder dystocia" is the impacting of the shoulders during the birthing process.

54 Dr. Penney never suggested to Mrs. Crawford at any time, as he should have, that her baby

should be delivered at a tertiary care centre with more experienced personnel. She was not fully apprised of the totality of the risks she faced. I am satisfied that Mrs. Crawford would have readily followed such advice had it been offered. She was never provided with this option.

55 I return now to the narrative. Following the May visit, Dr. Penney continued to see Mrs. Crawford on a regular basis. On July 7th he estimated that she was "about fourteen weeks gestation" according to the ultrasound. He confirmed this by palpation of her abdomen and found that "it was within the range that I expect for this date." He employed a technique, which he said had a long history of usage by the medical profession and which was dealt with in many texts. This was the Leopold Manoeuvres. Dr. Penney's evidence was that this method allowed a physician to estimate fairly accurately the duration of gestation and, later on in the pregnancy, the size of the fetus. He testified that he was familiar with an alternative technique, namely the symphysis fundal height measurements technique. However, when he used the latter, he had difficulty obtaining consistent measurements. Therefore, he abandoned it in favour of the Leopold Manoeuvres. By not following the form provided in Antenatal Record 2 regarding the measurement of the symphysis fundus height at each antenatal visit, Dr. Penney was not in a position to know when and to what extent the fetus became large for gestational age.

56 During her August 9th meeting with Dr. Penney, Mrs. Crawford complained of some swelling of her feet and headaches. Despite some initial weight loss, her weight had returned to her pre-pregnancy level. Dr. Penney expected that this would happen. Her blood pressure and urine were tested by the nurse at each visit.

57 Dr. Conway saw Mrs. Crawford on August 19th in Dr. Penney's absence. He dictated a note to her chart as follows:

> Having dizziness particularly on these hot days, slight ankle edems (sic edema) and swelling of fingers. However her BP is normal and she has no pitting edema. Probably postural hypotension, advised.

58 Another random blood sugar was performed at that time. The reading was 4.7, which Dr. Penney said was well within the normal range.

59 On the September 20, 1983 visit, Dr. Penney concluded that the baby had grown "appropriately" and that the pregnancy was "continuing normally". On October 18th he drew the same conclusions that Mrs. Crawford's weight gain was appropriate and that the fetal growth rate was as expected. Dr. Penney's evidence was that, by this point, there were no changes in his assessment of the risks. Dr. Penney noted a continued weight gain, but concluded that it was of no major significance. He also noted that the baby was growing satisfactorily, but was "beginning to feel that we were going to parallel the growth of her previous baby ...". At this time, he advised Mrs. Crawford that she was going to have a large baby. He did not, however, expect that the baby would be as large as 4,950 grams, Melissa's actual birth weight.

60 Using the Leopold Manoeuvres, Dr. Penney, on November 23rd, confirmed his diagnosis that the baby would be large. He observed that the baby's head was pointing downwards and was, accordingly, in a favourable position. Between September 20th and October 18th Mrs. Crawford gained five pounds. By November 9th she gained an additional four pounds.

61 On December 7th Dr. Penney observed a further weight gain of five pounds and noted that Mrs. Crawford's blood pressure was "up a little more than anticipated." She complained of heartburn. Dr. Penney's evidence was that there was "a little note of concern beginning to arise regarding the blood pressure and the weight gain." However, there were "no major concerns."

62 At the December 13th visit he observed another 5 lbs. increase in weight, which increased his concerns. However, the baby's growth, according to Dr. Penney, was as expected. He discovered a trace of protein in Mrs. Crawford's urine, but concluded that this was common. Her blood pressure was up to 134/78. However, he measured the blood pressure again during that visit and recorded it at 125/80. He observed that her hands were slightly puffy as though she were retaining fluids. He testified, "I recognized that she in danger of becoming hypertensive at term ... and that this may be of some significance." His only advice to Mrs. Crawford was to get more rest.

63 Dr. Penney saw her again on December 19th. He testified that there was no change in her weight, but again there was a trace of protein in her urine. Her blood pressure was "somewhat more elevated at 146/80." Dr. Penney decided that the increased blood pressure was not associated with any proteinuria, but that she needed to be watched carefully because this "could possibly degenerate in pre-eclampsia." He concluded that he might have to admit Mrs. Crawford to the hospital and asked her to return in three days. He again told her to rest at home in the meantime. In fact, Mrs. Crawford's weight went up 13 lbs. in the four weeks following November 23rd. Notwithstanding all of this, Dr. Penney made the following note on Mrs. Crawford's chart: "Prenatal no problems". Her chart reveals no record of any of Dr. Penney's concerns at this time.

64 Mrs. Crawford returned to see him on December 21st. She had gained another 3 lbs. and again her urine showed a trace of protein. Her blood pressure continued to be "much the same". Dr. Penney's evidence was that, at that time, he felt that she should be delivered in the near future if her blood pressure did not settle. His evidence was that if it did not settle "we were going to induce her". I accept Mrs. Crawford's evidence that Dr. Penney did not, on December 21st, tell her that he might have to induce her if her blood pressure did not come down.

65 He admitted her to the Smiths Falls Hospital on this date. He dictated the following note to Mrs. Crawford's chart:

> Now has toxaemia of pregnancy, it is getting worse and she has been admitted to hospital for bed rest.

66 Dr. Penney testified that when he referred to toxaemia of pregnancy, he meant hypertension, not pre-eclampsia. His words were, "toxemia is a somewhat an antiquated term which covers a wide

variety of conditions all of which have hypertension as the common element." Pre-eclampsia is a condition in pregnancy characterized by increasing hypertension, headaches, albuminuria and oedema of the lower extremities.

67 However, Dr. Braithwaite, an obstetrician called by the plaintiffs, testified that toxaemia is another word for pre-eclampsia. Indeed, Dr. Penney agreed with this during cross-examination.

68 Dr. Watts agreed with Dr. Braithwaite. I find that the diagnosis of pre-eclampsia was an accurate one. This diagnosis/condition was yet another reason why Dr. Penney should have immediately secured an appropriate opinion from a specialist or caused Mrs. Crawford to be moved to a tertiary care facility. I do not accept the Defendants' argument that the pre-eclampsia issue is a "red herring". Pre-eclampsia, according to the evidence, is associated with gestational diabetes.

69 In 1983 it was known that the two important signs of pre-eclampsia were hypertension and proteinuria and that, as well, the most dependable warning sign of pre-eclampsia was a rise in blood pressure. A sudden and excessive weight gain was also known as another sign of pre-eclampsia. Weight increments of one pound per week are/were considered as normal. However, weight gains exceeding two pounds in any given week or six pounds in a month, should have caused a physician to suspect pre-eclampsia.

70 Mrs. Crawford's Antenatal Record 2 shows a thirteen-pound weight gain between November 23rd and December 21st, 1983. I accept Dr. Farine's evidence that this is suggestive of pre-eclampsia. He further pointed out a five pound weight gain between December 7th and 13th which he noted as being excessive as was the three pound weight gain from December 19th to December 21st. Dr. Farine is a leading obstetrician. He gave evidence on behalf of the Plaintiffs.

71 Dr. Drummond, a family physician called by the Defendants, testified that when weight gain exceeds two pounds in any given week, or six pounds in a month, incipient pre-eclampsia must be suspected.

72 The hospital Admitting/Discharging Record (Exhibit 1, Tab 1) contains the following notations, which would have been typed by the admitting clerk in response to a call from the admitting nurse:

> "Admitting diagnosis; PRE-ECLAMPSIA (8 MONS PREGNANT)."

73 Dr. Penney did not, at any time during the pregnancy, arrange for either a glucose challenge test or a glucose tolerance test.

74 Dr. Penney's evidence was that this information on the Admitting Record was not accurate. He was then asked as follows:

> If you had noticed it - this is a somewhat awkward question because it asks you

to assume that you saw it, but if you did see it, what would you have done?

A. Nothing, sir.
Q. Why not?
A. This is part of a typewritten form which is multi-part, and those parts go to various administrative offices and this was - this form was filled out by the person responsible to the administration. This person does not have any medical capacity and it's not my job to correct any errors that he or she might make.
Q. Regardless of whether it was your job to do so, did you ever do this; did you ever correct the record?
A. No, sir. I would not correct what the admitting clerk had typed. (He did, however, see Exhibit 1, Tab 13, the urinalysis results and this document shows pre-eclampsia as the diagnosis). To me it wasn't a part of the - a medical part of the medical record.

75 Dr. Penney firmly denied having advised the admitting nurse of a diagnosis of pre-eclampsia, notwithstanding that the Record showed the admitting diagnosis as pre-eclampsia. He testified that his plan was that if her blood pressure did come down, Mrs. Crawford would have been discharged home to await spontaneous delivery.

76 The admitting nurse also completed a nursing department "admission history", which showed the diagnosis as "Pre-eclampsia" (see Exhibit 1 Tab 18). Dr. Penney testified that this format is not used by physicians, and that, at the time of Mrs. Crawford's admission, he did not consult the form. He said, "I might have seen it later, but not at the time of her admission". He was then asked in chief, "do you recall seeing it and taking note of it, the diagnosis, written there?" His answer was, "not specifically, sir". According to him, this form would have been filled out by the nurse sitting down with Mrs. Crawford and asking her questions, following which she, the nurse, would make the recordings. On cross-examination he agreed that, as the medical practitioner, it was his responsibility to assign an admitting diagnosis. He also agreed that the head nurse in obstetrics was a highly capable, responsible, and conscientious nurse.

77 At Exhibit 3, Tab 2 is the CHEO Medical Report, which, under the heading "History", notes that "mother had mild pre-eclampsic toxemia in the last trimester of pregnancy". When Dr. Penney transferred Melissa to CHEO he did not bring the records with him. He, therefore, was CHEO's only source of information. He agreed that there is nothing in Melissa's Smiths Falls Hospital charts referring to pre-eclampsia. The CHEO note is dated July 6, 1984 and was authored and signed by Dr. P. Humphreys, who was a paediatric neurologist. A copy of this note was sent to Dr. Penney. Dr. Penney was not able to explain where that diagnosis came from.

78 In any event, Dr. Penney gave no orders at the Smiths Falls Hospital to monitor Mrs. Crawford or investigate for further symptoms of pre-eclampsia.

79 A urinalysis was carried out upon Mrs. Crawford's admission. The urinalysis report is found at Tab 13 of Exhibit 1. At the top left hand corner under the box entitled "diagnosis", the word "Pre-eclampsia" is written in. Dr. Penney did not know who filled in that information although he said, "the way it is written is reminiscent of the nursing history." When compared to Tab 18 both handwritings appears to be identical. He concluded that the writing in both documents was that of Mrs. Hayes, the head nurse in the obstetrics unit.

80 Dr. Penney testified that when he met with Mrs. Crawford on the morning of December 21st, he told her that her elevated blood pressure could compromise the baby's supply of oxygen and nutrients and could mean "baby might be better out of her uterus". He said that he told her that he was going to discuss this with a colleague of his, Dr. Gillieson, who was in charge of the high-risk maternal fetal medicine unit at the Ottawa General Hospital to see if he agreed with the plan or offered other alternatives.

81 I heard conflicting expert testimony with respect to whether Mrs. Crawford should have been induced on December 21st, assuming that she continued under the care of Dr. Penney at the Smiths Falls Hospital. I conclude that, given the reasons for her admission to hospital on December 21st, there was no valid reason for putting off the induction of labour. I accept as valid the testimony from the Plaintiffs' experts that there is literature indicating that when fetal macrosomia is noted, induction of the baby should occur at thirty-six to thirty-eight weeks gestation in order to avoid the fetus growing even larger. The reason, of course, is to avoid birth asphyxia and other trauma to which the fetus is exposed because of the macrosomia. In other words, macrosomia itself may be a sufficient reason to induce labour after thirty-six weeks gestation.

82 There is evidence, put in through Dr. Farine, which I accept, that when fetal macrosomia is noted, induction of the baby at thirty-six to thirty-eight weeks' gestation is indicated since macrosomia predisposes the newborn to asphyxia and other trauma. In other words, macrosomia itself can be a sufficient reason to induce labour after thirty-six weeks.

83 Dr. Penney said that he had a telephone discussion with Dr. Gillieson in his office during a visit with Mrs. Crawford and, "gave him a history of Mrs. Crawford and her pregnancy." His evidence was as follows:

> When I spoke to Dr. Gillieson, I gave him a history of Mrs. Crawford and her pregnancy, and discussed with him the fact that her blood pressure had gone up in the last few weeks of pregnancy; that she had otherwise had a relatively uneventful pregnancy; that she had had a genetic amniocentesis early in the pregnancy and was known to be carrying a female child. I advised him that this baby seemed to be on the large size, and he asked me how big her previous child had been, and I advised him that it had weighed nine pounds ten ounces and had delivered in four hours. And he asked me what I thought this one weighed and I told him that I estimated that it was in the same range, maybe around about ten

pounds. He asked me a few more questions and I told him, and I asked him whether he felt that there needed to be any change in plan, and he said that he felt we should carry on in Smiths Falls.

84 Dr. Penney, when asked if he had had a discussion with Mrs. Crawford after he spoke to Dr. Gillieson, said the following:

A. Yes. I came back having discussed it with Dr. Gillieson, and advised her that the plan I had discussed with her was felt by Dr. Gillieson to be appropriate, and that we should carry on and admit her to hospital and if her blood pressure didn't settle then we would proceed to an induction of labour.
Q. Did she indicate any - give you any response to that report?
A. She indicated that that was perfectly acceptable to her.
Q. Did you name Dr. Gillieson?
A. Yes, sir, I did.

85 He went on to testify in chief as follows:

Q. All right. Now why did you discuss - why did you have this discussion with Dr. Gillieson?
A. I recognized that I had formulated a plan and I felt the plan was appropriate, but I also recognized that Mrs. Crawford had a somewhat increased risk, and I wanted to talk to him about that and whether he felt that her degree of risk was appropriate to deliver in Smiths Falls, or whether she should be delivered in Ottawa.
Q. And was this a consultation that you were having with Dr. Gillieson?
A. Not in my mind, sir. Dr. Gillieson was a colleague who was I was discussing a case with in the same way that I would talk to one of my colleagues in the corridor and say I've got a case of such and such with such and such, I was thinking of doing this. Do you think that's okay.' This is the sort of conversation that I would have frequently. I am sure Dr. Gillieson never even knew Mrs. Crawford's name.
Q. Did you give him Mrs. Crawford's name?
A. No, I didn't give him her name.
Q. Had you previously discussed cases in this manner with Dr. Gillieson?
A. Oh, frequently. Both on the telephone, and he was a friend as well as a colleague, and we would go out for dinner, and we would often exchange information about cases. I would put various problems to him, either hypothetical or real, that I was interested in seeing if his views matched mine, and if there were little snippets of new information that I could obtain, I'd tuck them away for future use.
Q. Did you refer patients to Dr. Gillieson?
A. Frequently.

86 Dr. Penney would not agree that the risk factors required a consultation with a specialist. His evidence at trial was that his purpose in calling Dr. Gillieson was to discuss with him his, Dr. Penney's "plan" of care for Mrs. Crawford. This was at variance with his evidence on discovery, which he adopted at trial.

87 Later, in his evidence in chief, he said that he could not recall if he attended at the hospital later that day following Mrs. Crawford's admission. Dr. Penney did not make a written notation about his discussion with Dr. Gillieson at or about the time of the alleged discussion. When asked why not, his answer was "had he had not agreed with my plan, I would have recorded it." Dr. Penney testified that the discussion was not medically relevant and, therefore, did not have to be noted on Mrs. Crawford's office or hospital chart.

88 Mrs. Crawford's recollection of what transpired on December 21st is significantly at variance to that of Dr. Penney. I prefer her version of events. Her evidence was that Dr. Penney did, indeed, advise her that he wanted her to enter the hospital since her blood pressure was high and was not dropping. According to Mrs. Crawford, he explained to her that the reason for this was so that she could get some bed rest. She said that he explained to her that if her blood pressure did not drop, he would have to deliver the baby. According to Mrs. Crawford, Dr. Penney did not explain the significance of the high blood pressure.

89 Her evidence was that Dr. Penney did not advise her of a discussion between him and Dr. Gillieson nor did he, at any time, mention Dr. Gillieson's name. She testified that at no time did Dr. Penney advise her that he had discussed her case with an obstetrician or other colleague and that at no time did Dr. Penney suggest to her that she should deliver her baby at a hospital with more experienced personnel - i.e. more experienced than those at the Smiths Falls Hospital. I also accept her evidence that at no time did Dr. Penney discuss with her the details of any potential problems that might be encountered in the delivery of a large baby or of the risks involved in delivering large babies. Smiths Falls Hospital is not a hospital with "an obstetrical unit with intermediate level nursing facilities" - it is a first level hospital.

90 I accept her evidence that this baby was very important to her and her husband because, given her age, it was probably her last chance to have a baby. The baby was also important because Mr. Crawford had never had a child of his own. I accept as truthful her testimony that had Dr. Penney explained the potential risks to her in connection with the delivery of a large baby, she would have wanted to be referred outside of Smiths Falls to "where they had better facilities".

91 Mr. Sommers, Plaintiffs' counsel, pointed out to Dr. Penney on cross-examination that, in the past, he had recorded the name of a person to whom he had referred Mrs. Crawford's son for speech counselling. He also made a note on January 27, 1983 with respect to the referral to Dr. Devitt concerning the large mass on Mrs. Crawford's right breast. He recorded Dr. Devitt's advice to him. The Gillieson telephone call was not pleaded in the original pleadings and did not come up until Dr. Penney mentioned it on his examination for discovery. Mr. Sommers pointed out to Dr. Penney that

his previously mentioned December 21st note to Mrs. Crawford's chart was dictated following his meeting with Mrs. Crawford and, therefore, after his alleged conversation with Dr. Gillieson. After the event, Dr. Healey and Dr. Penney, according to Dr. Healey, discussed this case "many, many, many times - many times and under many circumstances." Dr. Healey testified that he had a strong recollection of Dr. Penney telling him that he had discussed the case with Dr. Gillieson on the day he admitted Mrs. Crawford. Dr. Penney's words were that he had "bounced the case off him by phone". Otherwise, there is a clear absence of any evidence to confirm this alleged conference or discussion. I note, as well, that Dr. Gillieson testified that he would not have given the advice attributed to him by Dr. Penney. There is no evidence of a note or other written document authored by Dr. Gillieson regarding this alleged conversation.

92 Dr. Gillieson has no memory whatsoever of the alleged December 21st conversation between himself and Dr. Penney or, indeed, any involvement with this matter. In fact, Dr. Gillieson has no recollection of being involved even peripherally in a situation involving a case of shoulder dystocia where the outcome was catastrophic brain damage to the infant.

93 Dr. Gillieson was asked the following question in cross-examination:

> Q. Dr. Gillieson, I want you to make the assumption that Dr. Penney told you, in a conversation, that took place between you and he, on the telephone, that he had a forty year old lady, in her second marriage; that she had a miscarriage early in her second marriage, but conceived soon thereafter; that she had a genetic amniocentesis which showed that she had a female infant; that she was somewhat overweight, somewhat short; that she had gained about twenty-four pounds in pregnancy; that she was hypertensive at term, her blood pressure had gone up in the last two weeks; that he was concerned about her; and that he wanted to get your feelings about it; that you were given the information that the last baby was about 9 lbs 10 ozs. and that that baby had delivered in four hours.
>
> Now, making this assumption, first of all, I would suggest to you that this information that I gave you is a selection of relatively primitive information; would you agree with that?
>
> A. Yes. It is, however, highly pertinent.
> Q. And if you had been given the information that I have just related, you would have asked more detailed information such as you would have inquired as to exactly what her height was?
> A. Yes.
> Q. You would have inquired as to what the rise in blood pressure was specifically?
> A. Yes.

Q. And you would have asked about other features of hypertensive disease, as well; isn't that correct?
A. Correct.
Q. Please tell the court what other features of hypertensive disease you would have asked about?
A. I would have asked whether she had proteinuria, hyperreflexia.
Q. If I could stop you there, Doctor.
A. Excessive reflexes.
Q. Hyperreflexia means excessive reflexes?
A. Yes.
Q. And that would be determined on a neurological examination?
A. A partial neurological examination.
Q. Please go on.
A. I might have asked her if she had headache, if she had pain in her upper abdomen, whether she had oedema - I think that's roughly it. I haven't kept notes about this, but I think that that is generally the sort of questions I would have asked.
Q. All right.
A. You asked me specifically about questions related to the fact that she had apparently had a rise in blood pressure and not about anything else?
A. Well, I was asking you a question with specific reference to the information that I had given you, and you were responding to that.
A. Okay. So, you included in that, and correct me if I am wrong, that she was - was she obese?
Q. Yes.
A. Okay. And she had had a previous baby weighing nine pounds something?
Q. Ten ounces. 9 lbs. 10 ozs.
A. Okay.
Q. Yes. Can you please tell His Honour, why these, looking at these two factors that you have just raised, the obesity and the previous baby of 9 lbs. 10 ozs. would have been relevant issues for you?
A. Well, there are - the answer is, unfortunately, complex, because there are several components to human weight in pregnancy that pertain to issues of fetal health and maternal health. Weight gain in pregnancy includes such things as fluid retention, fat deposition, fetal size, potential for excess fluid around the baby. So, that's a very crude measure of a number of different things, all of which are taken into account.

I would have asked her height because I would have wanted to know, if someone is relatively short, what that meant. And the answer was that, for her height?

Q. Well, I can give you the answer now. I don't believe we have evidence that you were given that evidence.
A. All right. Well, I don't know, I don't remember, so it's all hypothetical.
Q. Well, you can make the assumption she was five feet.
A. Okay.
Q. So, why would these factors be of significance, the fact that she was obese, she may have had proteinuria, she was edematous, she had a large baby at 9 lbs. 10 ozs. previously, and she was short?
A. The principal concern with a telephone call like that would have been the degree of hypertension and the potential in a new pregnancy for pre-eclampsia development which would have compromised the fetus.
Q. And the question around this issue, I take it, would have been that you would be at least as concerned, having been given this information that we're asking you to assume that you had been given - you would have been at least as concerned about the possibility that the patient had severe toxemia, as you would have been about any other questions?
A. Yes. Yes.
Q. And you might also have thought about whether there was a potential for gestational diabetes being present in this patient; isn't that correct? (Gestational diabetes is a carbohydrate intolerance diagnosed during a pregnancy. It is one of a heterogeneous group of conditions that comprise what is known as diabetes mellitus. All of these heterogeneous groups share one thing in common - elevated blood sugar.)
A. I might have been concerned about diabetes. I'm not sure that we were using the term "gestational diabetes" in 1983.
Q. All right. We've already had a lot of evidence on that specifically. But you would have been concerned, generally, about the potential for diabetes in the patient?
A. Yes, I would have. I would have.
Q. And when I used the term that your concern would have been for the possibility of there being severe pre-eclampsia, we could just as easily have said that your concern was that the patient had severe toxemia; isn't that correct?
A. I wouldn't have used the term toxemia.
Q. But the terms - you understood the terms "toxemia" and "pre-eclampsia" being used synonymously; isn't that correct?
A. Well, toxemia is a relatively antiquated term which was largely abandoned in the early seventies. People used the term rather loosely. I'm not quite sure what you're question is getting at, but I would have been concerned about pre-eclampsia.

94 Dr. Gillieson's evidence was that pre-eclampsia was synonymous with toxaemia.

95 Dr. Gillieson said that he would probably have required more information than what was conveyed to him by Dr. Penney before reaching a decision to proceed with the induction. Further details would have included the gestational age of the pregnancy, whether the patient actually fulfilled the criteria for the diagnosis of pre-eclampsia and the "cervical findings/scoring". He added that a vaginal examination would be needed. Dr. Gillieson said that a diagnosis of pre-eclampsia in 1983 would have been made where there was a rise in blood pressure of 30/15 over the booking blood pressure - i.e. the first blood pressure found at the first antenatal visit, and, as well, the presence of significant proteinuria and increased reflexes.

96 His evidence was that if hypertension was suspected a physician would recommend hospitalization to make the diagnosis. This would involve a reading of a rise in blood pressure of 30/15 on two occasions twelve hours apart and would also have to be an evaluation of urine samples for protein and an examination of fetal welfare. The urine would be tested either on the basis of a twenty-four hour collection of 0.3 grams per litre or greater than one gram per litre in at least two random urine specimens collected six hours or more apart. As well, dipstick urine, which is negative, is also a reliable indicator of the absence of proteinuria. The hospitalization would involve a careful history followed by a careful physical examination. The testing would also include looking for the inadequate excretion of urine. In re-examination the following exchange took place:

> Q. Dr. Gillieson, I had started by asking you to assume certain facts. So, I would ask you to continue to assume those facts, and assume that you were told by Dr. Penney, in addition to what Mr. Sommers said, that he had made an appreciation of hypertension in this patient; that the blood pressure hadn't settled while resting at home; that the patient was going to be admitted for bed rest, and that some decisions would be made following her response to bed rest; that Dr. Penney was aware that there are circumstances in which it may be better to get the baby out of the uterus, than to leave the baby in utero in the presence of hypertension; that there had been no proteinuria other than trace proteinuria; that the due date was January 2nd, 1984, and the conversation that you had was on December 21st, 1983.
>
> Assuming these facts, who do you think your advice to Dr. Penney might have been at that time?
>
> A. Admit to hospital. Maintain modified bed rest. Do a pelvic examination. Perform fetal welfare tests, which I believe would have been non-stress tests. Dip urine for protein. That's probably about it.

97 During her hospitalization various tests were carried out on a regular basis. The urinalysis results, according to Dr. Penney, continued to be normal. A Smiths Falls Hospital "GRAPHIC

CHART" indicates a number of hand-made check marks opposite the box entitled "urine". According to Dr. Penney, this simply means that urine specimens had been obtained and tested by the nursing staff - i.e. a dipstick analysis had been carried out.

98 At trial, Dr. Penney agreed that it would be prudent to perform serial determinations of protein in urine in a situation where a mother has hypertension, has gained thirteen pounds in twenty-eight days and has observed oedema because gestational hypertension can deteriorate into pre-eclampsia and one can become aware of that by testing on a daily basis for proteinuria in the urine. Dr. Penney agreed that he did not give any specific orders to the nurses to check the urine, but that it was indeed checked - (i.e. see the check marks at Tab 21E, the graphic chart). Therefore, he is relying on his memory when he says that he was told by the nurses that there was no protein or was told that there was a trace of protein. He did point out that he conveyed the information about the trace proteinuria to CHEO. He did not order a twenty-four hour urine collection. It is more likely that the check marks simply mean that Mrs. Crawford passed urine on those dates.

99 Dr. Penney agreed that where there is proteinuria in pre-eclampsia there is a need for immediate hospitalization and that termination of pregnancy has to be considered. Of course, he argues that there was only a trace, which therefore was insignificant. The evidence does not establish that Dr. Penney gave instructions to test Mrs. Crawford specifically for proteinuria nor does it establish that he asked any nurse for information concerning the presence of proteinuria.

100 Dr. Penney visited Mrs. Crawford daily after her admission except for Christmas day. He allowed her to return home for a short period of time on Christmas. Dr. Penney's evidence was that her course was fairly stable, thus making his decision a little more difficult given that an induction of labour is a somewhat invasive procedure. He testified that eventually, after some procrastination and after consultation with Dr. Healey, he decided to proceed with an induction of labour. He also testified that her oedema was not worsening and that, in fact, it was modest and had lessened. Mrs. Crawford's evidence was that, while in the hospital, she encountered swelling in her hands and feet.

101 During her hospitalization her weight stayed more or less constant. Her blood pressure fluctuated "a little" according to Dr. Penney.

102 On December 26th, Dr. Penney made a decision to proceed with an induction of labour on the following day since, according to him, Mrs. Crawford's condition was not changing. He felt that there was nothing to be gained from waiting any longer.

103 On December 27th, in the presence of her husband and a nurse, Mrs. Crawford signed a "Consent to Investigative, Operative or Treatment Procedure" form. (See Exhibit 1 page 49). She submitted to the following procedure "normal delivery of my baby". Opposite the heading "Date of Surgery" the nurse wrote in "N/A". Dr. Penney referred to this as the generic consent form, which is completed by the nursing staff, "after I have discussed the procedure with the patient". Mrs. Crawford also signed another hospital consent form on December 27th. The hospital had constructed a birthing room and its policy was to obtain the mother's consent when this room was

used rather than the main operating room. Dr. Penney's evidence was that it took only minutes to move someone from the birthing room to the operating room, which was located one floor above. Both consent forms, as aforesaid, were signed on December 27th and Mr. Crawford was present and witnessed the signing of each of them. I am satisfied that, had Mrs. Crawford been fully apprised of the nature of the risks she faced, she would not have signed these consents.

104 When in the hospital, Dr. Penney arranged for Mrs. Crawford to undergo a non-stress test. The test was performed and the baby's fetal heart rate was recorded as being normal.

105 The evidence of Drs. Penney and Healey is that they consulted on December 27th. This was required pursuant to a hospital policy, which stipulated that a treating physician was required to obtain the opinion of another physician where the intent was to induce labour. The consulting physician is obliged to comment on whether the induction is appropriate and timely.

106 Dr. Penney gave instructions to the nursing staff that he "would like to obtain a consultation from Dr. Healey". His evidence was that to the best of his knowledge, what "happened is that the nursing staff contacted Dr. Healey and he made arrangements to come over later that morning to assess Mrs. Crawford, and I believe that he telephoned me himself after he had assessed Mrs. Crawford. But, if not, then the information was - was given to me that he had seen and assessed Mrs. Crawford and concurred with my feeling that the induction should be carried out." Later he said "I believe that I spoke to him, but there is some doubt in my mind as to whether I spoke to him before or after he had seen Mrs. Crawford. But I believe that it was more likely that I spoke to him following."

107 Dr. Penney did not see Dr. Healey's consultation note (Exhibit 1, Tab 6) until sometime later, probably the next day. Dr. Penney testified that Dr. Healey had examined Mrs. Crawford, that he felt that there were valid reasons to proceed with the induction and that "we should proceed." He also said "he saw no contra indication to the induction." The evidence fails to confirm that Dr. Healey actually carried out a physical examination of Mrs. Crawford. Dr. Penney testified, "it seems I gave those instructions at 10:30 on the morning of the 27th of December." He identified the Dr.'s Order Sheet at Exhibit 1, Tab 11. The notation made by the nurse on that sheet states, "Have Dr. G. Healey consult - vo (verbal order) Dr. Penney per K. Millar, RN." Obviously, Dr. Penney was confused in his evidence concerning the sequence of events. It is possible that Dr. Penney's answer related only to the time at which he ordered the non-stress test. The non-stress test was carried out starting at 12:20 a.m.

108 Dr. Healey testified that he went to the hospital after the call, talked to the nursing staff, viewed the records and examined Mrs. Crawford. He believes that it was around noon hour that he went to the hospital. He said that he saw both Antenatal Records 1 and 2.

109 Dr. Healey has no recollection of a nurse being present during his examination. Dr. Healey's recollection is that his first discussion with Dr. Penney was early in the day. On discovery he did not know at what time the call had taken place. Subsequently, after reviewing the records he

concluded that the consultation call took place in the morning prior to lunch. Later, he said "it occurred in the morning. I went to the hospital at lunch hour when I had finished seeing my morning patients, and then examined Mrs. Crawford and dictated my consultation note." He then said that the conversation was around noon or before. He later said that he had no recollection of the precise time when he examined Mrs. Crawford. In other words, it could have been before or after lunch. He then said "I believe it was around the lunch hour." However, he could not be sure.

110 Dr. Healey said that during Dr. Penney's call, Dr. Penney indicated that he was concerned because of the following: Mrs. Crawford had developed high blood pressure, he had admitted her to the hospital for bed rest, she had not really improved, her blood pressure had remained elevated, this was her third pregnancy, that she was around forty years old, and she had had two previous deliveries one of which was a baby of over nine pounds.

111 Dr. Penney wanted to induce her because her blood pressure was not improving. Dr. Penney was advised that Dr. Penney had examined Mrs. Crawford and felt that her cervix was reasonably soft and favourable and that he wanted to proceed with the induction.

112 According to Dr. Healey his examination took place in her own room. He said that he confined his examination to her general status and her abdomen. He concluded that she had developed high blood pressure "in the week prior to this". He testified "I felt that the baby was not small." In his written notes (see below), he referred to the size of the baby as "seems normal". After an abdominal examination he agreed with the induction decision. He could not recall how his opinion was conveyed to Dr. Penney. In his evidence in chief, he said "Mrs. Crawford's baby in no way seemed to be growth retarded, but I don't particularly recall forming the impression that the baby was exceptionally large. I would consider a normal term pregnancy to be anywhere from 5 1/2 to 9 1/2 pounds in weight."

113 Mrs. Crawford knew who Dr. Healey was. She knew him because he was her husband's family doctor. Both Mr. and Mrs. Crawford testified, and I accept their testimony, that Dr. Healey did not speak to or examine Mrs. Crawford prior to the induction of labour on December 27th. The evidence is clear that there is no written record, other than Dr. Healey's aforesaid note of his having spoken to Mrs. Crawford or having conducted an in-person examination of her. Dr. Penney confirmed that when a physician examined a patient, it was hospital policy to have a nurse in attendance and for the nurse to record the visit. Except for a couple of trips to the washroom and restaurant, Mr. Crawford did not leave Mrs. Crawford's hospital room after his arrival at 9 a.m. that morning. He accompanied her when she was later moved to the birthing room. His evidence was, and I accept it, that he did not leave the birthing room. When he was required to use the bathroom, he used the bathroom in that room. Dr. Healey could not recall whether the initial call to him came from Dr. Penney or a nurse.

114 Dr. Healey dictated the following consultation note: (See Exhibit 1, Tab 6, p. 13)

CONSULTATION

Dec. 27/83.

CRAW-FORD: Jeannette

Attending Physician: Dr. B. Penney,

Consultant: Dr. G. Healey.

This lady is nearing the end of her third pregnancy. She is due January 2nd, and this has been confirmed by ultrasound scan. She has been troubled in the latter part of the pregnancy with hypertension and was hospitalized five days ago because of a persisting diastolic hypertension. Currently her diastolic blood pressure is 98 mm of mercury. This is despite bed rest. She has had no proteinuria, she has had very slight edema. (It is noteworthy that he does not mention the admitting diagnosis of pre-eclampsia.)

Given that the due date is January 2nd, the size of baby seems normal, and the presentation is vertex, I agree with your decision to induce. I see nothing to be gained by waiting any further on this lady, as her blood pressure is significantly elevated and can only get worse, and can only have a detrimental effect on the fetus from hereon-in.

G. Healey, M.D.
Trans. Dec. 27/83. (Dr.Healey's signature)

115 How could Dr. Healey have concluded that the size of the baby "seems normal"? Dr. Braithwaite, an obstetrician called by the plaintiffs, described the baby as significantly abnormal. Why was Dr. Healey not informed of its size by Dr. Penney? In cross-examination Dr. Penney said that he could not recall the details of his talk with Dr. Healey but expects that he told him that he was expecting a large baby. It is significant that nowhere in this note does Dr. Healey say that he conducted a physical examination of Mrs. Crawford. Dr. Healey attempted to explain that he used the word "normal" only in the context of a concern for growth retardation. I do not accept this answer as a credible one. Under no circumstances could this fetus be described as "normal".

116 According to Dr. Penney, he had made certain that all of the requirements necessary for an emergency caesarean section were in place and, in particular, made sure that a general surgeon and an anaesthetist were available. It was anticipated that Dr. Healey would be available on short notice if his help was needed and that he would not be further than a quarter of a mile from the hospital. Dr. Penney knew that Dr. Healey and the anaesthetist would arrive at the hospital within "minutes" of being called if they were needed. Dr. Tannenbaum, a family physician who practices obstetrics and who was called by the plaintiffs, testified that a birthing room is generally used only in low risk situations.

117 Dr. Healey, after the delivery, dictated a further note, which was transcribed on December 28th. This note reads as follows: (See Exhibit 6, Tab 1, p. 41).

SMITHS FALLS COMMUNITY HOSPITAL

PROGRESS NOTES CRAWFORD: Jeanette

Dict. Dec. 27/83, Trans. Dec. 28/83

I was called to the caseroom shortly after 2200 hours to assist Dr. Penney with a shoulder dystocia. This patient had been induced for maternal hypertension and had laboured well with a Pit drip and had a spontaneous vertex delivery without an episiotomy. At that point it became apparent there was a severe degree of shoulder dystocia.

When I arrived the baby's head was completely delivered. A generous left mediolateral episiotomy had been made. The posterior shoulder was well impacted down into the birth canal and the anterior shoulder was still riding high above the pubis. It was impossible to rotate the baby and the axilla of the anterior shoulder could not be reached. Dr. Penney attempted to fracture the clavicle of the posterior shoulder and when this was unsuccessful the decision to incise the pubic symphysis was made. Before the necessary equipment could be obtained she had another good strong contraction and with Dr. Penney applying continuous hard traction to the baby's head and with mother pushing and myself applying hard fundal pressure, the anterior shoulder delivered.

The baby was extremely flat at birth. Dr. O'Neil was in attendance at this point and he and Dr. Penney began resuscitation of the infant. The placenta delivered

spontaneously and appeared intact. It was very large. Post-partum bleeding was minimal to moderate. Mother was taken to the caseroom and put in stirrups to repair the very large episiotomy which had extended to the side and almost below the rectum. This was closed in layers with 2-0 chromic. There was a partial tear of the external anal sphincter and this was repaired with 2-0 chromic, figure of 8. The skin was closed with continuous locked 2-0 chromic. The rectum was examined following repair and was intact, no suture material was palpable in the rectum. The vagina was empty of clots. The fundus was firm. A Pit drip which had been used during labour was running and this will be continued briskly until the bag of Ringers is finished. At that point, Ringer's lactate will be maintained to keep open. Mom's blood pressure got as high as 112 diastolic during labour and this will be monitored closely post-partum.

G. Healey, M.D.

118 According to Dr. Penney, he attended on Mrs. Crawford on December 27th a little after 10 a.m. whereupon he carried out a routine examination and a vaginal examination. He testified that a nurse was present as always, but that Mr. Crawford was not present.

119 Mrs. Crawford testified that Dr. Penney advised her on December 27th that he "wanted to bring it (the birth) on". This was the day before her 41st birthday. He told her that the reason for bringing it on was because her blood pressure was not reducing. He was unhappy that it was so high. She testified, and I accept her evidence, that Mr. Crawford was present during this conversation. Mrs. Crawford has no recollection of Dr. Penney carrying out a vaginal examination on this date. She also testified that she does not have a clear recollection of the events that occurred during the period between the commencement of the induction of labour and delivery. I accept Dr. Penney's evidence that, indeed, he conducted a vaginal examination on December 27th.

120 As a result of this examination, Dr. Penney concluded that the baby was approaching 10 lbs. He also concluded that the head was still cephalic. He found that the blood pressure was elevated and that there was some modest oedema. He concluded that Mrs. Crawford's urine was clear and that her cervix was soft and partially taken up. He was able to admit two fingers easily. Therefore, he estimated that she was approximately three centimetres dilated and that, therefore, this meant that she had a favourable cervix. He was not anticipating "any difficulty in making the induction of labour succeed". He testified that he told Mrs. Crawford her cervix felt favourable and "I felt baby's head was well down in the pelvis and that I anticipated the induction of labour would go smoothly."

121 During his examination of Mrs. Crawford, Dr. Penney noted that Melissa's head was left occiput anterior, which he described as the most common position - one of the most favourable positions for labour and delivery. On cross-examination Dr. Penney agreed that such positions are anticipated in fifteen to thirty percent of women. He then agreed that it was a somewhat

unfavourable position because the head takes longer to rotate through a larger arc and that it may be more uncomfortable. He agreed that cephalopelic disproportion may be more common in an occiput posterior position. Following this, Dr. Penney advised Mrs. Crawford that the circumstances were favourable to proceed with the induction.

122 Mrs. Crawford was transferred to the birthing room at 13:00 hours. After this was pointed out to Dr. Penney at trial he said that he believed that he started the intravenous infusion following her transfer. He said "I believe I started the intravenous infusion sometime after 13:00 hours."

123 The intravenous infusion employed was Ringer's lactate. Following the use of the Ringer's lactate, he employed the agent oxytocin. The initial infusion was started with ten units of oxytocin (Pitocin) at fifteen drops per minute. The plan was to use a gradually increasing concentration of oxytocin in order to stimulate uterine contractions. The Pitocin, he explained, is the synthetic version of oxytocin which is the normal hormone of the body that usually starts uterine contractions when spontaneous labour occurs. This resulted in contractions beginning in Mrs. Crawford. Labour was established at 14:50 and progressed as "fairly typical." Dr. Penney noted that, because of the discomfort of labour, a mother's blood pressure usually goes up and that, because Mrs. Crawford's blood pressure was somewhat elevated, it was likely to have a more significant elevation during this process than in other women. At 16:00 Dr. Penney ordered the nurses to increase the oxytocin dosage.

124 Dr. Penney visited Mrs. Crawford at 18:20 and examined her. He noted that the cervix was five to six centimetres dilated which he said was an appropriate degree of progress at that point. He said, "... it (the cervix) was still somewhat thick. The presenting part had not changed in its position. There had been no significant descent, but the baby's head was now in a posterior position, and I could determine this more easily than I had in my initial examination earlier on in the day. (The nurse recorded that the presenting part was "high" meaning that the head had not yet entered the pelvis and was, therefore, unengaged.) And, I performed an artificial rupture of membranes." (i.e. of the waters or collection of amniotic fluid in front of the baby's head). However, Dr. Penney explained that the head of the fetus was in the pelvis and "was favourable for the progress of labour, but the position of the presenting part was not the most favourable that I had hoped for when I did my original examination in the morning." I accept the Plaintiffs' argument that, based on authoritative medical literature, the progress of labour in the second stage was slow and that this should have alerted Dr. Penney to the possibility of fetopelvic disproportion (see Dr. Drummond's evidence).

125 Dr. Penney stated that the position of the baby's head meant that it had to rotate more than ninety degrees and that this process would take a longer period of time than earlier expected and would be associated with more discomfort during labour. Mrs. Crawford was becoming quite distressed at this point. Accordingly, Dr. Penney gave her a small dose of a narcotic painkiller - Demerol. He ordered that she be placed in the "knee-chest position" which is a position whereby the mother kneels on the bed and then bends forward so that her chest is lying on the bed and her

buttocks are elevated in the air. Notwithstanding that this position and the painkiller provided relief from discomfort, Mrs. Crawford became quite distressed with each contraction.

126 Dr. Penney again returned to the birthing room at 21:40 hours and carried out a further vaginal examination. He noted some progress "but there was still a small anterior rim of cervix present." A few minutes after that, full dilatation occurred. At 21:55 the baby's head delivered.

127 I pause here to note that at no time either on or prior to December 21st did Dr. Penney provide Mrs. Crawford with advice concerning the possible option of a caesarean section. The evidence is clear that caesarean sections do, of course, contain various risks to the mother and the baby and, therefore, physicians must not opt for them until other avenues have been explored. However, the evidence also demonstrates that there are instances where they should be undertaken with or without a trial of labour. Caesarean sections, the evidence demonstrates, are an alternative to vaginal birth where the baby is macrosomic. The literature in 1983 demonstrates that if vaginal delivery is attempted, a physician experienced in the delivery of shoulder dystocia should be present in order to minimize the occurrence of a traumatic delivery. This literature further demonstrates that the most common obstetric complications associated with fetal macrosomia are postpartum haemorrhage and shoulder dystocia. This literature also indicates that if vaginal delivery is elected, there should be a second attendant available in the delivery suite to assist in the delivery. It has also been noted in the literature that the concept that a pelvis has been proven by previous uncomplicated passage of a macrosomic infant is untenable. At the very least, given the nature of shoulder dystocia, there can be no justification for ignoring or playing down several pregnancy risks simply because the patient has, in the past, delivered a macrosomic infant.

128 I accept Dr. Farine's evidence that in order to reduce the risk of shoulder dystocia, the decision on whether to proceed by caesarean section should have been made by or in consultation with an obstetrician. Dr. Farine, as aforesaid, testified as one of the Plaintiffs' expert witnesses - he is an obstetrician.

129 According to Exhibit 148, a 1978 Technical Bulletin of the American College of Obstetricians and Gynecologists, a caesarean section should be performed in any diabetic patient whose estimated fetal size is more than 4,000 grams. While there was a difference of opinion from the various experts in this trial concerning this suggestion, I am satisfied that, at least, a case can be made for liberal use of caesarean sections. Support for this conclusion is also found in Exhibit 37.

130 At 21:55 one of the nurses recorded that Dr. Penney was unable to deliver the shoulders. The chart note reads as follows "... Spontaneous respirations occurred on two occasions. However, at this point the shoulders became impacted. Traction was attempted on the head and neck trying to bring down the anterior shoulder coincident with maternal contractions and pushing, there was no movement." Mrs. Crawford and Melissa, therefore, were facing a grave emergency. Dr. Penney said that he made his first call for help five minutes after the shoulder dystocia was recognized. At 22:00 the nurse recorded "both Dr. Healey and Dr. O'Neil called to the case room". Dr. Penney had no

specific plan in place to deal with shoulder dystocia.

131 Dr. Penney observed that the head restituted in a counter-clockwise position so that the nose was above the horizontal plane. According to him, the head delivered without any difficulty - "totally normally". Dr. Penney testified that at this point he believed when he was controlling the delivery of the baby's head, "she (Mrs. Crawford) had her leg resting against my shoulder ... this recollection is not entirely clear, but it is the commonest position". The baby's shoulder became impacted in an oblique plane. Actually, the right shoulder was between twelve and three o'clock and the left shoulder between six and nine o'clock - at approximately mid-point. When the head delivered, the baby's nose "came out at the six o'clock position" and restituted at the ten o'clock position.

132 At this point, Dr. Penney had been standing at the right hand side of Mrs. Crawford's bed at approximately her hip level. Dr. Penney then raised his left hand underneath the baby's head going down below the chin level and his right hand over the right side of the baby's face, just below the chin level, and applied gentle traction (pulling downwards, backwards and outwards) in order to attempt to deliver the shoulders. There was no movement. He testified that, in most deliveries, the head comes through almost simultaneously with the shoulders. He said that, sometimes, the shoulders may need some assistance in coming through or "you may wait until the next contraction and that will usually deliver the shoulders". He testified, however, that in the latter circumstance, his practice was not to wait for the next contraction. Instead, he said, "we apply this gentle downward and backward traction to bring the shoulder underneath the pubic arc. The shoulder, as it is coming through, is rotating and it usually comes through and appears underneath the brim ..." (it rotates counter-clockwise).

133 Dr. Penney denies that he told Dr. Healey when he arrived that he, Dr. Penney, could not reach the anterior shoulder or anterior axilla nor did he tell him that he had tried to push up the posterior shoulder and reach the anterior shoulder. Dr. Healey, after he arrived, was unable to reach or move the anterior shoulder. Dr. Penney's briefing note, later given to CHEO, refers only to a single attempt at a cleidotomy (fracturing of the collar bone) notwithstanding his evidence that he made several attempts at it. Dr. Penney said that Dr. Healey made all of the manoeuvres that he, Dr. Penney, had performed. However, there is nothing in Dr. Healey's note about attempting a cleidotomy. In giving his testimony, Dr. Penney described in exhaustive detail, his efforts to disimpact the shoulders.

134 Dr. Penney said that he recognized that "I might have to perform some manoeuvres so I made arrangements and gave instructions to move Mrs. Crawford to the end of the bed". - this required removing the footboard. Mrs. Crawford's buttocks were hanging over the edge of the bed with the bones of her pelvis resting on the edge of the bed. However, the soft tissue parts were overhanging the edge. He did this to "be able to have access to Mrs. Crawford's perineum in order to perform the maneuvers". Dr. Penney testified that he had not made a diagnosis of shoulder dystocia at that point. However, on discovery he said, "it was when I was doing my usual gentle

traction on the head and neck that I recognized that we had the shoulder dystocia". He testified that it was impossible for Mrs. Crawford to support her legs herself and, therefore, "I had the nurses support her legs and I believe Mr. Crawford supported her legs at one point" so that he, Dr. Penney, could perform the manoeuvres. By this time, Dr. Penney had gone to the end of the bed and was facing the perineum. Mrs. Crawford's thighs were resting against her abdomen in order to give him the best possible access to the perineum and to straighten out the birth canal.

135 The baby's head remained in the same position during these last mentioned movements, as did her shoulders. Dr. Penney testified that when Mrs. Crawford was moved to the end of the bed, he did a vaginal examination. He said he placed two fingers of his right hand into the vagina behind the baby's right scapula in order to try to adduct the shoulder. He then pushed on the anterior shoulder. Mrs. Crawford pushed when asked to do so. Dr. Penney's intent was to reduce the diameter between the points of the shoulders. He was pushing the shoulder towards the midline of the patient's pelvis. He said that he pushed in a counter clockwise direction, but there was minimal movement.

136 According to Dr. Penney, he then moved his hand to try to reach the posterior shoulder to attempt a similar manoeuvre but in a clockwise direction. He was probably in a kneeling position at this time, he said. Again, there was no change in the baby's position. All of this took only a few seconds. According to Dr. Penney, approximately thirty to forty-five seconds had elapsed between the delivery of the head and the attempt at traction of the head. To move Mrs. Crawford to the end of the bed took another forty-five to fifty seconds. The attempts to adduct the anterior shoulder consumed between fifteen and thirty seconds and the attempt to move the posterior shoulder exhausted another fifteen seconds or so.

137 By this time Dr. Penney, according to his testimony, was "beginning to get really concerned". He said that he then tried to get his long finger under the baby's right armpit and applied traction and rotation with both hands in order to attempt to bring the obstructed shoulder underneath the pubic arc. The purpose of attempting to get into the armpit was to avoid pulling on the neck and damaging the brachial plexus and potentially the spinal cord. Again, there was no progress. This manoeuvre took another 10 to 15 seconds. The baby's head remained in the same position. The clock continued to tick.

138 As aforesaid, by this point, according to Dr. Penney, he had made the diagnosis of shoulder dystocia. He then summoned for help. He said, "get Dr. Healey here stat and get me an anesthetist please". I pause to note that neither party called any of the attending nurses to testify at trial.

139 While waiting for assistance, he continued to perform manoeuvres. In chief, he said, "I attempted at this point to try and fracture the right clavicle". He placed his thumb behind the clavicle and his middle and index fingers were spread across it following which he squeezed in an unsuccessful attempt to fracture the clavicle. At this point, he said "I put in some local antiseptic to perform a large left mediolateral episiotomy". He described the episiotomy as the largest that he had

ever performed - it extended to the level of the anus and a little beyond. The large episiotomy was to allow him to "get better access to the posterior shoulder". The attempt to fracture the clavicle probably took between fifteen to twenty seconds. The administration of the antiseptic took between fifteen and twenty seconds. Another ten to fifteen seconds was required to allow the antiseptic to work. While waiting for the antiseptic to work he made another unsuccessful attempt to move the anterior shoulder. This time he attempted to rotate the right shoulder in the opposite, or clockwise, direction. This attempt was also unsuccessful. The episiotomy consumed about ten seconds. More valuable time has been consumed.

140 Dr. Penney said that, following the episiotomy, he attempted to move the posterior shoulder in a clockwise position and then in a counter clockwise position, again unsuccessfully. According to Dr. Penney, this was "around about this time that Dr. Healey arrived". Dr. Healey arrived at 22:04, four minutes after being called and nine minutes after the baby's head had delivered and the shoulders became impacted.

141 I accept Dr. Farine's evidence that the interval of time from delivery of the head to delivery of the body of the infant is of great importance to survival and that overly vigorous traction on the head or neck, or excessive rotation of the body, can cause serious damage to the infant. Here, nine minutes elapsed between the delivery of Melissa's head and the arrival of Dr. Healey. Had Dr. Healey been present, or had, better yet, an obstetrician been present, this time period would probably have been reduced. The fact is that by the time Dr. Healey arrived, the damage was, most likely, done. Dr. Livingstone, one of the defence obstetricians who gave opinion evidence, agreed that asphyxia of the fetus occurs where there has been a delay beyond four or five minutes or between five and seven minutes. His evidence was that a delay of from five to seven minutes in resolving the shoulder dystocia will, as it did, result in brain damage due to a lack of oxygen. He conceded that inappropriate management or delay can have catastrophic consequences for the fetus. I pause to observe that it does not assist the Defendants that the shoulder dystocia here was very severe. In other words, proper advance precautions were not taken to deal with the risk. There was no real dispute in the evidence with the proposition that difficult deliveries are more frequent with macrosomic fetuses.

142 Dr. Penney described the existing situation to Dr. Healey. Dr. Healey immediately put on his gloves and took Dr. Crawford's place. The explanation took about fifteen to twenty seconds. More time passed. Dr. Penney stated, "we all recognized that we were dealing with a potentially life-threatening emergency".

143 Dr. Penney was very insecure in his testimony as to when the episiotomy was performed. At trial he testified that he was sure it was done before Dr. Healey arrived and probably before the time the call to him was placed. The nurses' record, however, seems to suggest that the episiotomy was not performed until 22:10.

144 Dr. Healey placed both of his hands in the vagina and tried rotation and disimpaction efforts

in a similar manner to those he had been advised Dr. Penney had performed. There was no give at all - "it was like stone against stone". Dr. Healey asked Dr. Penney to apply abdominal compression which he did by placing his hands on Mrs. Crawford's abdomen. He pressed down on the area where he could feel the baby's shoulder. He tried, unsuccessfully, to push the baby's shoulder underneath the pubic brim by a combination of downward pressure and a little bit of rotation - he was pushing in the lower portion of the abdomen. Time continued to accumulate.

145 At this point Dr. Penny asked that the Oxytocin infusion be increased. This did not immediately assist.

146 It became apparent when Dr. Healey was not able to deliver the baby that "we now have a desperate situation, so I tell Dr. Healey I'm going to prepare for ... a symphysiotomy". Dr. Penney took hold of the syringe with the remaining local antiseptic and injected it into the pubic mound - i.e. into the junction between the two bones of the pubic symphysis. The anaesthetic injection took about thirty seconds. However, because a symphysiotomy was something he had never done before because it was dangerous, Dr. Penney felt he should make one more attempt at delivering the baby from the vaginal end. He took over from Dr. Healey. He attempted more traction. That did not work. He attempted another rotation. That did not work either. He then attempted on several occasions to fracture the right/anterior clavicle. All of this took another forty-five to sixty seconds. Dr. Penney said, "eventually I thought I had fractured the clavicle, but nothing happened". He then turned his attention to the left/posterior clavicle. He repeated the same manoeuvres and "this time I felt a give. The posterior shoulder went up, the anterior shoulder came down. I put my fingers into the axilla to bring the shoulder underneath ... and then I delivered the rest of the baby by traction". During these manoeuvres, Dr. Healey pushed on Mrs. Crawford's abdomen in the same fashion as Dr. Penney had done. The traction that Dr. Penney applied was described by him as being "very firm". There is a good deal of medical literature which was supported by Dr. Farine stating that if the dystocia is marked, fundal pressure should be avoided as it only increases the impaction of the shoulders. It was, therefore, unnecessary to complete the symphysiotomy.

147 When the baby was delivered it "was basically dead" according to Dr. Penney. Mrs. Crawford was exhausted and distressed. Prior to the delivery of the baby, Dr. O'Neil, the anaesthetist, had arrived (i.e. at 22:10). He was waiting at the Infant Care Centre preparing to perform the resuscitation procedures.

148 Melissa was limp and white and her head and face were a dark blue. Dr. Penney quickly divided the umbilical cord and passed the baby to Dr. O'Neil who began resuscitation procedures. He rapidly sucked out the baby's pharynx while he inserted a laryngoscope. Dr. Penney listened for but was unable to hear a heartbeat. He, therefore, commenced cardiac massage. He asked Dr. Healey to attend to the delivery of the placenta and repair the episiotomy, which he did in the operating room. Melissa's birth weight was greater than the 97th percentile. As aforesaid, she weighed 4,950 grams.

149 Within about thirty seconds, Dr. Penney could hear a heartbeat. Meanwhile, Dr. O'Neil had been continuing ventilation procedures. The heart rate was initially fairly slow and then picked up. The baby's heart seemed to recover within the first minute or so.

150 Later, while at CHEO, Dr. Penney recorded an Apgar score of zero, meaning that the baby was born dead.

151 Melissa began breathing on her own while still at the Smiths Falls Hospital. However, her breathing was insufficient for her needs.

152 Dr. Penney then performed an umbilical artery cut down - he inserted a catheter into the artery and advanced it into the baby and inserted a solution of sodium bicarbonate to help correct the acidosis that occurs when a baby is deprived of glucose. The brain is dependent upon glucose and, therefore, "one can anticipate that there will be hypoglycaemia following a period of prolonged hypoxia". Following this he changed syringes and attempted to inject Dextrose.

153 By this time, Dr. Penney had asked one of the nurses to contact CHEO to make arrangements for him to transfer Melissa to it. He also instructed the nurse to arrange for an ambulance.

154 Dr. Penney then tried to cannulate the other artery. This too was unsuccessful. He then unsuccessfully attempted to cannulate the umbilical vein. He abandoned these attempts upon the ambulance's arrival.

155 During the transfer, Melissa had difficulty maintaining adequate respiration. This required Dr. Penney to ventilate her with an ambu-bag.

156 Dr. Healey was cross-examined on his recollection of subsequent meetings at the hospital concerning the events surrounding Melissa's birth. On the basis of Dr. Healey's evidence taken as a whole, I conclude that much of his evidence is reconstructed evidence as a result of his reading the various records prior to trial. Indeed, on his examination for discovery he agreed that he had no distinct memory of the circumstances surrounding his involvement with Mrs. Crawford as opposed to what was in the various charts. In cross-examination at trial this very question and answer were suggested to him and he denied that he had no distinct memory as opposed to what may be in the notes.

157 In chief Dr. Healey said that he knew that there was an association between macrosomic babies and shoulder dystocia and that both conditions were associated with older women (i.e. old for pregnancy), and with short women, obese women, and women who had given birth to previous large babies. Dr. Healey never encountered an episode of shoulder dystocia prior to Melissa's.

158 He testified that the usual Smiths Falls practice was to refer patients considered to be at risk to one of the regional centres in Ottawa or Kingston.

159 The following exchange took place on cross-examination:

Q. Did you carry out an assessment of any of the risk factors that were present during this pregnancy, or may have been present during this pregnancy?
A. Risk factors for what?
Q. For anything.
A. My consultation at that time was the appropriateness of the induction.
Q. So did you look at what, if any, risk factors may have been present during this pregnancy?
A. I looked at risk factors as they would be applied to the induction in Smiths Falls on December 27th.
Q. Did you look at the risk factors as reflected on the back of the antenatal record, or the front of the antenatal record?
A. I did not look at the risk factors on the back of the antenatal record.
Q. Were you able to identify any risk factors that had been identified by Dr. Penney during this pregnancy?
A. I was looking at the case from the point of view of induction for the purposes, for the reason of hypertension. So, I was looking at the risk factors as it would relate at that point in time.
Q. Well, what I am asking you, sir, is did you look at the presence of any risk factors that had been, or should have been, identified according to the risk grading on the reverse of the antenatal record?
A. Other than the risk factors that would pertain at that time, in place, and as regards to the procedure that we were about to do, no, I did not look at other risk factors.
Q. So you did not look at any of the risk factors that may have been present during the pregnancy?
A. Only as they pertained to the induction at term because of high blood pressure.
Q. So I take it that that assessment that you carried out would have included the assessment of any risk factors that might impact on the success of vaginal delivery?
A. Yes.

160 In his consultation note, Exhibit 1, Tab 6, Dr. Healey made no observation about the fact that Mrs. Crawford was obese, that she had had "a large for dates infant" from her previous pregnancy, that she was carrying "a large for dates infant", and that she had a three day labour for her first baby with the use of forceps. Dr. Penney did not tell him whether the baby was occiput anterior or occiput posterior or transverse. Therefore, his note makes no reference to the position of the baby from this perspective. In addition, the note does not record Mrs. Crawford's weight gain during pregnancy. He did not know that on the last three occasions when Mrs. Crawford had seen Dr. Penney, she had demonstrated some trace proteinuria. Dr. Healey was aware of the family history of diabetes but did not think it was pertinent to the matter at hand ... "it was not relevant to the induction." He was, however, aware in 1983 that if a woman had a family history of diabetes, she

might develop diabetes during pregnancy and that the development of diabetes "might cause all sorts of problems with the fetus - including causing the baby to grow large." To him, a macrosomic baby was one that weighed more than 4,500 grams (i.e. more than ten pounds). Dr. Healey was not able to satisfactorily explain how he had determined that the size of the baby seemed normal.

161 He was aware, however, that if a baby sustained shoulder dystocia, every second counted in terms of the delivery because, if the delivery is delayed, brain damage will result and that hypoxia of greater than six or seven minutes duration would result in the commencement of brain damage. The longer the hypoxia persists, the more severe the brain damage will be. He agreed that by the time he arrived during the emergency there was probably already brain damage.

162 Dr. Penney and Melissa arrived at CHEO just after midnight. Melissa was taken to the Neonatal Intensive Care Unit and turned over to the physicians working there. These physicians encountered the same difficulties as had been encountered by Dr. Penney with respect to attempts to cannulate the arteries.

163 Dr. Penney was asked by the physicians at CHEO to write out a summary of what had happened. He did this before leaving CHEO. The note reads as follows: (Exhibit 3, Tab 5) The words in square brackets are mine.

> Born after induction of labour in 38 year old gravida III [illegible] II. [December 28th was Mrs. Crawford's 41st birthday. In fact this was her fourth pregnancy]
>
> Second marriage - last delivery 13 years ago uneventful 9 lb 9 oz boy. Conceived within a few months of marriage. Amniocentesis at 14 weeks at Ottawa Gen.
>
> - normal female Karyotypes
>
> Pregnancy uneventful until last 2 months when blood pressure started up.
>
> [In fact, it was later than that - i.e. three weeks ago when she reached the diastolic pressure of 80]
>
> - In early pregnancy blood pressure 120/80, [it was 114/70] beginning Dec. 140/80 - no proteinuria, minimal edema. [but there was trace proteinuria - Dr. Penney considered trace proteinuria to be of no significance]

One week ago blood pressure rose to 150/95 [this is inaccurate] - trace protein

slight edema - admitted for bed rest at 38 weeks. Blood pressure stayed up - edema down slightly - still trace proteinuria.

EDD [estimated date of delivery] Jan 2/84

Non Stress test reactive

- Induction decided today with oxytocin I.V. - normal progress with posterior position to full dilatation at 7+ hrs.

Head delivered uneventfully.

Perineum intact - progress arrested - traction to head, neck and anterior shoulder no progress

- Traction to posterior shoulder & axilla

No progress - rotation - no progress [to the left of the lines beginning with "Traction" and "no progress." Dr. Penney drew an arrow pointing towards the separation of those lines and wrote in "large episiotomy"]

Cleidotomy - (Manual left)

- no progress

Add abdominal pressure

+ preparation for syphysiotomy

Attempt - push back of posterior shoulder followed by traction of anterior

> successful delivery.

Apgar - zero at birth

Asyotole [meaning no heartbeat]

CPR (cardio pulmonary resuscitation) - intubated ventilated

100% oxygen 20 min

some spontaneous respiration - anaesthetist decided to extubate - bag with mask + airway > spontaneous respiration; temperature 36.7

- baby still floppy ++

Umbilical artery cannulated

5 ml 8.4% Na HCO3 [meaning sodium bicarbonate] given

> cannula > interstitial at umbilical dermal junction when advanced.

- further attempts at vein + artery abandoned as condition improved with spontaneous respiration + some hand and foot movement

CHEO - contacted - transfer arranged

- During transfer - baby - cyanotic

- Bagged en route.

164 Dr. Penney did not keep a copy of this hand-written note. He was asked to explain the fact that the note contained several mistakes, and his response was, "this was an extremely stressful time, sir, and I was attempting to be as accurate as I could be under the circumstances". I have some sympathy with this answer, given the circumstances of the making of the notes. However, it is significant to note that Dr. Penney makes no mention here of his alleged conversation with Dr. Gillieson.

165 Dr. Penney returned to Smiths Falls Hospital with the ambulance crew and upon arrival, called CHEO, at which time he was advised that the baby's condition was slightly improved in some ways, "but that she had commenced to have some seizures". He then spoke with Mrs. Crawford and advised her that Melissa's condition was serious but that he did not know the extent of the severity. He told her that it was possible that there might be permanent brain damage. He called Mr. Crawford at his home and told him basically the same things that he had told Mrs. Crawford.

166 On the morning of December 28th, Dr. Penney completed a Newborn Infant Attending Physician's Record and, among other things, recorded, "severe birth hypoxia, fracture clavicle". He also recorded fractures to both clavicles. He learned later that only the right clavicle had been fractured.

167 On December 29th, Dr. Penney dictated a more detailed note, which was transcribed on December 30th, 1983, as follows: (Exhibit 1, Tab 8)

SMITHS FALLS COMMUNITY HOSPITAL	CRAWFORD: Jeanette Dict. Dec. 29/83, Trans. Dec.30/83

HISTORY AND PHYSICAL EXAM

ORDER OF RECORDING: Chief Complaint; History of present Illness; History of past Illness; Family History; Physical exam, Provisional Diagnosis.

DATE:

This 41 year old gravida 3, para 2 was admitted for bedrest because of elevation of blood pressure in the last month of pregnancy, blood pressure having risen to

150/90 prior to admission. This pregnancy was planned and occurred within a couple of months of remarriage. Amniocentesis was performed at 14 weeks and revealed a normal female carrier type with no problem and the due date was confirmed for the 1st of January. There has been no glycosuria or proteinuria of any significance throughout the whole pregnancy and neither has there been any since admission.

O/E: She is short, somewhat overweight lady.

Chest: Expansion is full, percussion note resonant, breath sounds are vesicular.

Breast: Active, no masses.

Heart Sounds: 1 & 2, nil added.

Abdomen: Soft with no hepatosplenomegaly.

Fundus: Compatible with term pregnancy, longitudinal lie, large baby, head is in the pelvis.

After discussion with Dr. Healey, it was decided to induce labour because her blood pressure had failed to come down. She had not shown any signs increase in proteinuria and this was felt to be early essential hypertension presenting and unmasked by pregnancy.

Labour was accordingly induced with an Oxytocin infusion and proceeded normally, contractions being maintained every two minutes with a few minor decelerations being noted. It was necessary to build the Oxytocin level up to 70 drops per minute at 10 units per litre. After approximately 6 hours, patient was found to have an anterior lip of cervix left and proceeded over the next hour to full dilatation, having rotated from a posterior position to a transverse and then

finally to occipital anterior position. The head descended smoothly and was delivered with minimal delay and a perineum that was intact, apart from a small superficial laceration. The infant's mouth was sucked out of some mucous and spontaneous respirations occurred on two occasions. However, at this point the shoulders became impacted. Traction was attempted on the head and neck trying to bring down the anterior shoulder, coincident with maternal contractions and pushing, there was no movement.

A rotation was attempted in order to try and bring the shoulder more into the mid-line. The rotation occurred to a small extent but the shoulder was still impacted and I was unable to get the anterior shoulder underneath the pubic brim. No cord was felt, neither were there any limbs presenting with the shoulders. The posterior shoulder was palpable and after traction in the anterior axilla had failed, traction in the posterior axilla was attempted with no success. At this point, Dr. Healey and the anaesthetist on call, Dr. O'Neil were called. They arrived within a few minutes. Dr. Healey attempted all the maneuvers that I had previously attempted, together with some abdominal compression manually by nursing staff and by myself. This again did not result in success. Manual cleidotomy was attempted initially, however, this was not immediately successful and preparations were made to perform a symphysiotomy with 10 cc of 1% Xylocaine injected into the pubic mound and into the pubic subperiosteal layer. However, a further attempt at cleidotomy was made and the posterior left clavicle was successfully fractured, the anterior shoulder brought down and finally the infant delivered. The Apgar at birth was 0, the shoulders having been impacted for approximately 45 minutes. Resuscitation was immediately undertaken. After suction of the nasal pharynx, Dr. O'Neil intubated the baby, and successfully ventilated the baby. No heart beat was initially palpable but this was restored within 30 seconds of delivery. IPPB with oxygen was undertaken using the ambu-bag and endotracheal tube by Dr. O'Neil while cardiac massage was performed. After the heart was successfully restarted, umbilical artery was cannulated and 5 mL of Sodium Bicarbonate 8.4% was injected successfully, however, after this the cannula went interstitial and further attempts at cannulating both the artery and the umbilical vein were unsuccessful, being unable to pass through the umbilicodermal junction. During this time, the baby became pink and started some spontaneous respirations. Its rectal temperature was found to be 36.7 and arrangements were made to transfer the baby to Ottawa. Having been intubated for a few minutes, Dr. O'Neil decided to extubate and ventilate with a mask and the infant ambu-bag. Repeated attempts to wean the baby off assisted respiration were unsuccessful. The ambulance was called and the baby was transferred to Ottawa. During the journey it was impossible to keep the baby pink without continuous ventilation. At CHEO the bay was

> weighed and found to be over 11 lbs. The shoulders were found to be unduly large in comparison to the head size. The baby was reintubated there, umbilical artery cannulation was again attempted and was unsuccessful initially and the umbilical vein was recannulated. Further Dextrose and Bicarbonate were given. The baby's care was then left in the hands of the staff of the Neonatal Unit at the Children's Hospital.
>
> This was a case of severe shoulder dystocia, probably caused by a prediabetic tendency in the mother which was not diagnosed during pregnancy, but in view of the infant's large size and the macrosomia in comparison to the head, this seems to be the most likely explanation and the mother will undergo glucose tolerance test in the post-partum period.
>
> ADDENDUM:
>
> Prior to the final delivery attempt and the repeated attempt at cleidotomy, a large left mediolateral episiotomy was performed under local anaesthesia. This was repaired by Dr. Healey who also delivered the placenta while I was engaged in assisting Dr. O'Neil during the resuscitation of the infant and the umbilical cutdowns. (underlining mine)
>
> B.J. Penney, M.D.
> (Dict. Dec. 29/83, Trans. Dec. 30/83)

(Dr. Penney's signature)

168 This was dictated from memory at the staff library in the Smiths Falls Hospital without Dr. Penney having the benefit of the obstetrical chart. The purpose of the note was to give a global summary. Again, no mention is made of any conversation with Dr. Gillieson. Dr. Penney explained the "ADDENDUM" as follows:

> When I was dictating this long series of complicated events, attempting to summarize them into a reasonable length, I reviewed in my mind as to what I had dictated and tried to think of whether I had missed anything significant, and I recognized that I had missed recording the episiotomy.

As aforesaid, he testified that the episiotomy was performed prior to Dr. Healey's arrival - that it

was done "soon after I had made the call for help". The apparent contradictions in the evidence causing the timing of the episiotomy is troublesome.

169 In this note, Dr. Penney refers to the fact that the shoulders were impacted for approximately forty-five minutes. In his evidence in chief, he said, "that was a subjected (sic subjective) impression. It felt like an eternity and obviously was extremely inaccurate".

170 As will be noted from a reading of his memo, Dr. Penney concluded that "this was a case of severe shoulder dystocia, probably caused by a prediabetic tendency in the mother which was not diagnosed during pregnancy, but in view of the infant's large size and the macrosomia in comparison to the head, this seems to be the most likely explanation and the mother will undergo glucose tolerance test in the post-partum period." He was asked in chief as to what he meant by this, and his answer was:

> The description of a baby with shoulders large in comparison of its head size had been reported in the babies of diabetic mothers, particularly those that were controlled on insulin. I was seeking to explain this baby and the difficulties that we had with this baby, and it came to me that since I knew that this lady didn't have diabetes, that she might have had a condition that was somewhere between normal and having diabetes. (A degree of impaired glucose tolerance).

171 In addition to the after the fact diagnosis of "somewhere between normal and having diabetes", a conclusion that Melissa was an infant of a diabetic mother is affirmed by the presence of several well known risk factors such as first degree relatives with diabetes, previous infant whose birth weight exceeded 4000 grams or higher than the 90th percentile for gestational age, obesity, hypertension, age in excess of thirty years, rapid increase in weight during the third trimester, and a large fetus.

172 I accept Dr. Braithwaite's testimony that had a proper test been done during pregnancy, a diagnosis of gestational diabetes would have been made. I note that Dr. Penney, in 1983, was aware that some women develop gestational diabetes during pregnancy. Notwithstanding that knowledge and the many risk factors, the gestational diabetes went untreated.

173 According to Dr. Penney, if macrosomia became an issue, the 1983 practice among Canadian physicians was to attempt a trial of labour and if the trial of labour was successful, then one would anticipate a vaginal delivery. If the trial of labour was unsuccessful, then one would proceed to a caesarean section. He stated that the shoulder dystocia in this case was extremely rare. He added that, in 1983, the standard screening measure for diabetes in pregnancy was to perform a test for glycosuria at every visit and that Mrs. Crawford had never had any glycosuria at any of her visits nor did she have any at the time of her hospitalization. He then went on to say, "the thought was that she might have a pre-diabetic tendency, somewhere between normal and diabetes, and I felt it appropriate to perform a glucose tolerance test to look at this possibility."

ADDITIONAL FACTS AND COMMENTS

174 Dr. Penney was asked in chief to describe his training and knowledge of shoulder dystocia prior to December 27th, 1983. His answer was as follows:

> I had learned that shoulder dystocia was a rare and unpredictable event. That when one encountered it, that the principles were disimpaction, traction and rotation to effect the delivery. That on occasion extraordinary manoeuvres (sic maneuvers) that are potentially distructive, including fracturing the clavicles and/or alternatively other bones. The other bone that commonly fractures is the humerus. That I probably would never see a severe case of shoulder dystocia in my lifetime. And, that too, if it occurred, to remember the first principles of rotation, disimpaction and traction.

He had not attended any continuing medical education courses dealing with shoulder dystocia.

175 Dr. Penney's evidence was that in 1983 he was familiar with the condition known as gestational diabetes - that it was a condition described as Type II or non-insulin dependent diabetes unmasked by pregnancy. He had never managed a pregnancy involving a mother with Type I diabetes in Smiths Falls, although he had managed them in his earlier UK training. He said:

> In Canada if I got a Type II diabetic that was even thinking of becoming pregnant I referred her, and if I discovered her in pregnancy, she would also be referred.

176 He relied on random blood sugar testing to inform himself. He said, "If she (meaning a pregnant woman) has persistent glycosuria and the random blood sugar is normal, I order a glucose tolerance test."

177 Dr. Penney admitted on cross-examination that in a case of shoulder dystocia, "every second counted" because asphyxia can result and cause brain damage in five to seven minutes (or seven to ten or seven to fifteen - there is a difference in opinions regarding the time period). Dr. Penney felt comfortable with seven to ten minutes. Dr. Penney did not anticipate that shoulder dystocia would occur. He said, in cross-examination, "I don't know of any reliable way of predicting shoulder dystocia" - other than a previous shoulder dystocia. He admitted that he was aware, in December of 1983, that there were risk factors leading to the development of shoulder dystocia e.g. that it could occur in infants of diabetic mothers. He also admitted that he knew that it was more common in infants of diabetic mothers where the infant weighed over 4,500 grams. He admitted in cross-examination that he was aware that advanced maternal age would also be a risk factor for shoulder dystocia and that age forty-one would be considered to be an advanced maternal age. As well, he conceded that there was a relationship between the mother's obesity and macrosomia and, therefore, with shoulder dystocia. He also recognized, as a risk factor, a prior macrosomic baby. At p. 94 of the June 26th transcript the following question and answer occur.

Q. So the bottom line is that as of December of 1983 you were fully appreciative that this lady had risk factors for shoulder dystocia; isn't that true?
A. Yes, sir.

178 However, he had no appreciation as to whether the aforesaid risk factors were "additive" (i.e. cumulative). He did not make an effort to inquire into this.

179 In cross-examination, counsel for the Plaintiffs read the following quote to Dr. Sermer, an obstetrician called by the Defendants, taken from a 1977 article published by the American College of Obstetricians and Gynecologists entitled "Standards for Ambulatory Obstetric Care - Supplement to Standards for Obstetric - Gynecologic Services 1974" under the heading "High Risk Pregnancies".

> Early identification of the actual or potential high risk pregnancy with appropriate consultation and care can contribute significantly to an improved perinatal outcome and a lowering of maternal morbidity and mortality. There are published data indicating that approximately two-thirds of high risk newborns can be anticipated by careful antepartum evaluation.

Counsel asked Dr. Sermer whether he had a problem with this statement and his response was "I'll just re-read it myself, okay? I don't have a problem with the statements." He later went on to say "I certainly don't disagree with the fact that we should have heightened awareness of some of these conditions. That's why we take the history, and that's why we have prenatal care." To be fair, however, he also noted that some conditions can be handled, without a referral, by a mid wife or family physician.

180 Dr. Penney was aware that ocytocin was contraindicated in 1983 in the face of fetal compromise/distress. Indeed, the ocytocin was increased at 22:00 to one hundred drops per minute from sixty drops per minute.

181 I accept, as proven, the following known information as at 1983:

(a) shoulder dystocia is related to excessive birth weight of the baby and to gestational diabetes;
(b) close surveillance of the potential complications associated with the delivery of large babies may reduce perinatal morbidity;
(c) discovery of an excessively large fetus should cause the physician to alter his/her management of the pregnancy;
(d) maternal obesity is a risk factor regardless of whether the obesity is associated with diabetes;
(e) a large proportion of infants with greater shoulder-to-head and chest-to-head disproportion show up more frequently in cases where the mother is diabetic;
(f) among large infants delivered vaginally, those with disproportionate shoulders or

chest-to-head circumfrance are at a higher risk for shoulder dystocia;

(g) the most common obstetric complications associated with fetal macrosomia are postpartum hemorrhage and shoulder dystocia. Caesarian sections help to reduce the morbidity rate; and

(h) if an election is made to proceed with a vaginal delivery of a macrosomic baby, the attending physician should be skilled in the techniques of management of shoulder dystocia and infant resuscitation in order to prevent or minimize maternal and fetal complications. As well, a second attendant should be available in the delivery suite to assist in the delivery.

THE NEGLIGENCE OF DRS. PENNEY AND HEALEY

182 Dr. Livingstone, an obstetrician called to testify on behalf of the Defendants, indicated that, in 1983, in Ontario, approximately fifty percent of infants were delivered by family physicians, particularly in rural areas. He testified that it was important, therefore, for these physicians to keep up with obstetrical literature and developments in order to properly manage women in their care. He also testified that medical schools attempted to train medical students to become "learners for life" and that family practitioners are encouraged to read family practice literature as opposed to specialty literature. I accept this as reasonable; however, I am not satisfied that either Dr. Penney or Dr. Healey, given the high volume of obstetrics in their practices, followed this advice.

183 In my opinion, notwithstanding that family practitioners were not reading, and were not expected to read, obstetrical and gynaecological specialist literature, they clearly had an obligation to keep up with significant developments. There were significant developments occurring in the 1970s and 80s with respect to gestational diabetes in particular. I am of the opinion that had Dr. Penney been better aware of these developments, he would have been aware of the need to transfer Mrs. Crawford to a tertiary care centre so that her pregnancy could be managed by a team of experts. It is basic that one of the goals of antenatal care is to detect abnormalities that exist and to attempt to prevent or minimize these. A full and accurate history is essential. Risk factors must be carefully assessed and the appropriate action taken.

184 Dr. Farine's evidence with respect to the volume of deliveries handled by family practitioners in 1983 was similar to that of Dr. Livingstone. He said that family practitioners were an integral part of the delivery of obstetrical care in Ontario because there simply were not enough obstetricians to handle all births. Dr. Farine is an obstetrician called to give expert evidence on behalf of the Plaintiffs.

185 I accept Dr. Tannenbaum's evidence that the standards of practice should be the same throughout Ontario regardless of where the practice is conducted. Dr. Tannenbaum is a family physician who practices obstetrics. He was called to testify on behalf of the Plaintiffs. In cross-examination he said:

> The standards that we apply with regard to the expected care that should be

> delivered to patients and the outcomes that we expect from that care, does not - the definitions are the same throughout the province. We don't have a subset of definitions for rural areas that's different from that applied to urban areas.

Indeed, he said that in some small towns, the quality of care is often at the cutting edge.

186 Dr. Braithwaite stated that while the standards of care are no different from a small centre to a large centre, he would note, however, that the clinical expertise may well be different. I agree with him.

187 Dr. Tannenbaum's testimony was that Mrs. Crawford should have been made aware that there were risks and that, had she been warned, she might have chosen a different route of delivery - i.e. a caesarean section. I accept his evidence on this point.

188 I also accept the evidence of Dr. Braithwaite regarding the alleged conversation between Drs. Gillieson and Healey. He said that, if the conversation took place, Dr. Penney did not meet the standard of care in that he did not give to Dr. Gillieson all of the relevant evidence. He said:

> I cannot fathom that Dr. Gillieson would say proceed at a center where there was no obstetrical or pediatric support.

189 Dr. Braithwaite was asked the following questions and gave the following answers or opinions.

> Q. And it wouldn't be surprising not to find notations of that hallway consultation in the patient record?
> A. Oh, I think that depends on the context, and I don't want to give the wrong impression that a hallway consultation is a consultation or an appropriate method of management in most circumstances. Typically, a hallway consultation is something that you, you know you ask a question, or it's not a formal consultation in a sense that I have a patient who I'm considering doing this, would you assess her?' You know, in this case, for example, a consultation - Would you assess her for delivery or induction or transfer?' In those circumstances, those require - because they are significant, they require appropriate documentation.
> Q. Right. And we have an example of a consultation in this case when Dr. Penney asked Dr. Healey for his opinion on induction?
> A. That there is something written.
> Q. Yes, that is ...
> A. I mean, I don't want to get involved in the specifics of the consult, unless you wish to.
> Q. But that's a consultation in the form of a person appears on a - the consultant appears on a patient's record. They may bill OHIP for carrying out the

consultation, and in fact usually do.

A. I was going to say I'm sure it was. It requires a history and a physical exam to do the consultation.

Q. Whereas, a hallway consultation doesn't fit that criteria?

A. That's correct.

Q. And one would be surprised to find the hallway consultant, if you will, to have submitted a bill to OHIP?

A. Yes.

Q. And, indeed, if they did make an entry into the hospital chart, then one might expect a bill to OHIP?

A. Well, I would find it difficult. I mean, the definition, if you will, of OHIP's definition of a consultation, requires a history and a physical. So I think that if you'd not seen the patient and done an independent assessment, then I think that you'd be hard put to defend a bill.

Q. The absence of submitting a bill, one would take to imply that at least the consultant didn't think they were being formally consulted?

A. The absence of a bill means they did not go and do an independent assessment of the patient.

190 Dr. Tannenbaum, whose evidence on this point I accept, testified that a telephone conversation was not good enough. Mrs. Crawford's condition called for an examination by an expert. He also testified, and again I accept his evidence, that, given that the delivery proceeded in the Smiths Falls Hospital, precautions should have been taken, including having extra personnel on hand and that this included having another physician and "that might be an obstetrician".

191 According to Dr. Braithwaite, Dr. Penney did not properly monitor the baby's growth nor did he properly follow up on Mrs. Crawford's risk factors and, in particular, did not follow up with a glucose tolerance test. He said, and I accept his evidence, that had Dr. Penney been more diligent with respect to both of these matters, he would probably have been alerted to the need to ensure that Mrs. Crawford was delivered to a tertiary care centre. He noted that an expert, had one been consulted, might have opted to proceed by way of a caesarean section rather than induction and a trial of labour. He did, however, take some comfort in the fact that Dr. Penney had arranged to have an anaesthetist and a surgeon on call. Dr. Braithwaite was not prepared to agree to a suggestion that the Leopold maneuvers were appropriate in the circumstances because "there's no quantitative measure there". He noted that a change may be very small from visit to visit and that this would not be caught by the Leopold method. He said that the SF height measurement technique was considered the appropriate means to screen for size in 1983 and was certainly the means which had the most support in the literature and amongst the professional societies at that time. There was, however, other evidence supporting the use of the Leopold maneuvers technique. Notwithstanding that Dr. Penney realized that the baby would be a large one, as noted earlier, he was not able to say when the baby became large for gestational age.

192 Dr. Braithwaite was asked to comment on Dr. Healey's performance. I accept Dr. Braithwaite's opinion which was:

> I find it difficult that Dr. Healey would have felt the size of the baby to be normal.

He said that it was significantly abnormal. In his opinion, Dr. Healey's note does not provide a significant indication on the record that an appropriate consultation was carried out. According to Dr. Braithwaite, Dr. Healey should have performed a vaginal examination in order to form an independent opinion. I agree.

193 I accept the Defendants' argument that shoulder dystocia is an obstetric emergency. However, as aforesaid, the evidence demonstrates that it was an emergency that could possibly occur in this case. Therefore, it is not enough for the Defendants to argue that they were faced with an emergency and tried to perform at their highest level in dealing with it. There should have been in place a carefully considered plan of action if it did occur. Such a plan could not have been put in place at the Smiths Falls Hospital without bringing in specialists.

194 I prefer the evidence led on behalf of the Plaintiffs that if it was appropriate to proceed with induction, there was no good reason not to commence induction as soon as Mrs. Crawford was admitted on December 21st. In reaching this conclusion, I have not lost sight of Dr. Sermer's evidence that induction is not a benign procedure.

195 Dr. Sermer said that it might have been appropriate for some family physicians to have consulted with an obstetrician concerning Mrs. Crawford's developments but that, given Dr. Penney's background, it was not appropriate for him to have done so. I disagree. Without intending any disrespect to Dr. Penney, he simply did not have the necessary backup in Smiths Falls, either with respect to available experts or hospital facilities. Similarly, I cannot accept Dr. Sermer's evidence that nothing put Mrs. Crawford in a higher risk bracket for shoulder dystocia and that, therefore, there was no reason for someone to predict the possibility of shoulder dystocia. I reach this conclusion, not with the benefit of hindsight, but based on all of the evidence led at trial.

196 The Defendants argue strenuously that there is no convincing evidence that Mrs. Crawford had gestational diabetes (GDM). Dr. Kenshole, an expert in Internal Medicine and Endocrinology, Dr. Sermer, as well as other experts, testified that gestational diabetes became a standard recognized term as a result of a 1964 study by Drs. O'Sullivan and Mohan but that gestational diabetes was not accepted as having real clinical significance until the early 1980's. In my opinion, the evidence shows that its acceptance and the need for a decision to deal with a diagnosis of gestational diabetes was entrenched in Ontario by 1983 notwithstanding that there was some controversy about GDM. I find that the association between gestational diabetes and perinatal death or morbidity was recognized in 1983. The evidence leads to a conclusion that, by 1983, it was recognized that the greatest association of gestational diabetes with any type of complications was macrosomia - i.e. gestational diabetes results in a higher incidence of macrosomia, or, put another way, it was known

in 1983 that the bigger the baby, the higher the complication rate. It was also known that there was a higher rate of cephalopelvic disproportion leading to a higher incidence of caesarean section.

197 Notwithstanding that the experts were not in agreement with the benefits of management of gestational diabetes during pregnancy, I prefer the evidence that states that proper management by an experienced obstetrician increased the chances of successfully delivering a baby without trauma.

198 I interpret the expert testimony to support a conclusion that while there was, in 1983, a variety of approaches to the screening for gestational diabetes, neither universal screening nor screening only by urinalysis were the standards. Urinalysis, by itself, was not sufficient in the face of identifiable risk factors. In light of the risk factors that were present, I do not accept the evidence lead by the Defendants that the negative urinalysis tests would have been reassuring and that Mrs. Crawford, therefore, had normal blood sugars.

199 As aforesaid, there is conflicting evidence on the benefit of management of a woman's pregnancy after a diagnosis of gestational diabetes. Dr. Kenshole testified on behalf of the Defendants that some studies have shown that, while treatment may reduce the incidents of macrosomia, such reduction has not had a beneficial effect on perinatal outcome. However, in cross-examination her attention was drawn to a paper, which she had co-authored, in which the following was stated:

> Although detection and treatment of GDM normalizes birth weights, rates of cesarean delivery remain inexplicably high. Recognition of GDM may lead to a lower threshold for surgical delivery.

200 In my opinion, the plaintiffs need not clearly demonstrate that early diagnosis of gestational diabetes would have eliminated all of the risks of an unfavourable perinatal outcome. The fact is that no diagnosis was made and, therefore, precautions that might have resulted in a favourable outcome were not taken. I am satisfied that, on the basis of all of the evidence led at trial, had Dr. Penney consulted with experts, or turned over Mrs. Crawford's care to an expert or experts, the likelihood is that Melissa would have been delivered either by a caesarean section or otherwise without the complications that did, in fact, occur. I accept Dr. Farine's testimony that if a diagnosis of gestational diabetes is made and properly managed, the incidents of morbidity are negligible and the risk of abnormalities will be reduced.

201 Dr. Braithwaite testified, and I accept his evidence on this point, that there is little doubt that treating women who have gestational diabetes with insulin can reduce the incidence of macrosomia and that early studies show that there was increased perinatal mortality with untreated GDM and the reduction of morbidity to normal with treatment.

202 I further accept Dr. Braithwaite's testimony where he said that there is an expectation that relevant information will be accurate and will reflect the events that occurred in terms of both substance and timing.

203 Dr. Kenshole, in her 1977 article (Exhibit 194) to which she made no reference in her testimony in chief and which was published in Primary Care, a journal specifically addressed to family physicians, is a good indication of the level of knowledge of family physicians at the relevant time. The information in the article is in substantial conflict with the expert testimony led on behalf of the Defendants concerning the alleged lack of knowledge about GDM in 1983 with respect to its existence, its diagnosis, and its management. Dr. Kenshole was one of the Defendants' principle witnesses regarding GDM. In my opinion, she was overly aggressive in giving her testimony. In fact, the contents of her 1977 paper accords with the Plaintiffs' evidence regarding the professions knowledge of GDM in 1983.

204 I have carefully balanced all of the testimony and I conclude that, indeed, there is convincing evidence that Jeanette Crawford had GDM. I rely, in particular, on Dr. Penney's observations recorded in the Smiths Falls Hospital Chart (Exhibit 1, Tab 8), the notations in the CHEO Chart (Exhibit 3, Tab 6, page 24, line 8 and Tab 8, lines 13 to 15) and, as well, on the testimony of Drs. Farine, Perlman and Tannenbaum.

THE LAW - GENERAL PROPOSITIONS

The Duty of Care

205 The decisions of the Supreme Court of Canada in Cooper v. Hobart, [2002] 1 W.W.R. 221 and Edwards v. Law Society of Upper Canada (2001), 206 D.L.R. (4th) 211, outline the approach to be taken by courts in assessing whether a defendant owes a duty of care to a plaintiff. The Supreme Court considered and modified the test for duty of care set out by the House of Lords in Anns v. Merton London Borough Council, [1978] A.C. 728.

206 The first stage of the test requires the court to consider whether the harm that occurred was a reasonably foreseeable consequence of the defendant's act, and whether there is a sufficient proximity to establish a duty of care. The proposed duty of care need not fall within any recognized category of recovery. At this stage, the court looks at whether there exists any relationship between the two parties sufficient to establish a duty of care. If the case does not fit within previously recognized situations where a duty of care was found to exist, the focus should include broad considerations of policy. These considerations are relational factors arising, again, from the relationship between the parties and the nature of the harm.

207 Once a duty of care has been established, the second stage of the test requires the court to consider whether there are any residual policy considerations which justify denying liability. Residual policy considerations can include: the need to balance public and private interests, the effect of such decisions on the public, the deference that should be accorded to policy decisions, indeterminate liability and the impact of this decision on our legal system.

208 Leaving aside for the time being the peculiar circumstances of the claim against Dr. Gillieson, there can be no doubt about the existence of a duty of care owed by the Defendants

physicians Penney and Healey to the Plaintiffs. The law with respect to the duty of care of physicians was summarized by the Supreme Court of Canada in Norberg v. Wynrib, [1992] 2 S.C.R. 226 at 270-271:

> The relationship of physician and patient can be conceptualized in a variety of ways. It can be viewed as a creature of contract, with the physician's failure to fulfill his or her obligations giving rise to an action for breach of contract. It undoubtedly gives rise to a duty of care, the breach of which constitutes the tort of negligence ... but perhaps the most fundamental characteristic of the doctor-patient relationship is its fiduciary nature. All the authorities agree that the relationship of physician to patient also falls into that special category of relationships which the law calls fiduciary.

209 The court noted that in previous decisions it had attributed the following characteristics to a fiduciary relationship:

(a) The fiduciary has scope for the exercise of some discretion or power;
(b) The fiduciary can unilaterally exercise that power or discretion so as to affect the beneficiary's legal or practical interests;
(c) The beneficiary is peculiarly vulnerable to or at the mercy of the fiduciary holding the discretion or power.

210 Regardless of whether the relationship between Drs. Penney and Healey, on the one hand, and Mrs. Crawford and Melissa, on the other, is defined as a contractual or a fiduciary one, there is a sufficient proximity between them to justify a duty of care. This sufficient proximity, or relationship, is a well-established one. Therefore I need not inquire further into the relationship. I must then ask whether there are any residual policy considerations outside the relationship of the parties that would, nonetheless, justify denying liability. I am not aware of any such policy considerations in this case.

211 I am satisfied that the harm that occurred in this matter was reasonably foreseeable - the harm was the reasonable consequences of the acts, or failures to act, on the part of these two physicians.

Causation

212 The court must address the issue of causation. The court must make its findings of fact dealing with the cause of the injury assuming that such findings can be made. Once these findings have been made, the court can then consider the issue of negligence. (See Meringolo v. Oshawa General Hospital, [1987] O.J. No. 608 (Ont. H.C.J.) (QL) rev'g in part (1991), 46 O.A.C. 260 (Ont. C.A.), [1991] O.J. No. 91, leave to appeal to S.C.C. refused, (1991), 50 O.A.C. 159 and Grass v. Women's College Hospital (2001), 200 D.L.R. (4th) 242, 144 O.A.C. 298 (Ont. C.A.), [2001] O.J. No. 1766, leave to appeal to S.C.C. refused, [2001] S.C.C.A. No. 372.

213 In paragraph 2 of these Reasons for Decision I set out my conclusion on causation. In reaching my decision, I have born in mind the following comments made by former Chief Justice Callaghan in Kungl v. Fallis, [1989] O.J. No. 15 at 1 (Ont. H.C.J.) (QL):

> Birth is a very traumatic event. It is dangerous for the baby. The birth process, even under optimal controlled conditions, is potentially a traumatic crippling event for the baby.

214 Needless to say, if there is no causation, there can be no liability even if there has been a breach in the standard of care. In Snell v. Farrell, [1990] 2 S.C.R. 311 at 319-320 (S.C.C.), the Supreme Court of Canada examined the principles concerning causation and the fact that several Canadian authorities purport to depart from traditional principles in the law of torts. Such principles propound that the Plaintiff must prove on a balance of probabilities that, but for the tortious conduct of the Defendants, the Plaintiff would not have sustained the injury in question. Some authorities reverse the ordinary burden or proof with respect to causation. It is not necessary for this court to reverse the onus. I am, after a thorough consideration of the totality of the evidence placed before the court, satisfied that the Plaintiffs have met the onus on them.

215 At page 326 of the decision the Supreme Court said:

> Causation is an expression of the relationship that must be found to exist between the tortious act of the wrongdoer and the injury to the victim in order to justify compensation of the latter out of the pocket of the former.

216 At pages 328-330, the court continued on to say:

> In many malpractice cases, the facts lie particularly within the knowledge of the Defendants. In these circumstances, very little affirmative evidence on the part of the Plaintiff will justify the drawing of an inference of causation in the absence of evidence to the contrary.
>
> ...
>
> It is not therefore essential that the medical experts provide a firm opinion supporting the Plaintiff's theory of causation. Medical experts ordinarily determine causation in terms of certainties whereas a lesser standard is demanded by the law.

217 I find particularly helpful the Supreme Court of Canada's decision in Athey v. Leonati (1996), 140 D.L.R. (4th) 235, [1997] 1 W.W.R. 97. At page 238, Major J. said:

> [13] Causation is established where the Plaintiff proves to the civil standard on a balance of probabilities that the Defendants caused or contributed to the injury: Snell v. Farrell, [1990] 2 S.C.R. 311, 72 D.L.R. (4th) 289 (S.C.C.); McGhee v. National Coal Board, [1972] 3 All E.R. 1008 (H.L.).
>
> [14] The general, but not conclusive, test for causation is the "but for" test, which requires the Plaintiff to show that the injury would not have occurred but for the negligence of the Defendants: Horsley v. MacLaren, [1972] S.C.R. 441, 22 D.L.R. (3d) 545 (S.C.C.).
>
> [15] The "but for" test is unworkable in some circumstances, so the courts have recognized that causation is established where the Defendants' negligence "materially contributed" to the occurrence of the injury: Myers v. Peel County Board of Education, [1981] 2 S.C.R. 21, 123 D.L.R. (3d) 1 (S.C.C.); Bonnington Castings, Ltd. v. Wardlaw, [1956] 1 All E.R. 615 (H.L.); McGhee v. National Coal Board, supra. A contributing factor is material if it falls outside the de minimis range: Bonnington Castings, Ltd. v. Wardlaw, supra; see also R. v. Pinske (1988), 30 B.C.L.R. (2d) 114 (B.C.C.A.); affirmed [1989] 2 S.C.R. 979 (S.C.C.).
>
> [16] In Snell v. Farrell, supra, this Court recently confirmed that the Plaintiff must prove that the Defendants' tortious conduct caused or contributed to the Plaintiff's injury. The causation test is not to be applied too rigidly. Causation need not be determined by scientific precision; as Lord Salmon stated in Alphacell Ltd. v. Woodward, [1972] 2 All E.R. 475 (H.L.), at p. 490, and as was quoted by the late Sopinka J. at p. 328, it is "essentially a practical question of fact which can best be answered by ordinary common sense". Although the burden of proof remains with the Plaintiff, in some circumstances an inference of causation may be drawn from the evidence without positive scientific proof.
>
> [17] It is not now necessary, nor has it ever been, for the Plaintiff to establish that the Defendants' negligence was the sole cause of the injury. There will frequently be a myriad of other background events which were necessary preconditions to the injury occurring. ...

218 Gonthier J., in Lawson v. Laferriere, [1991] 1 S.C.R. 541 at 608-9 (S.C.C.), held that the elements of determining causation in medical malpractice cases are as follows:

(a) The rules of civil responsibility require proof of fault, causation and damage;

(b) Both acts and omissions may amount to fault and both may be analyzed similarly with regard to causation;
(c) Causation in law is not identical to scientific causation;
(d) Causation in law must be established on the balance of probabilities, taking into account all the evidence: factual, statistical and that which the judge is entitled to presume;
(e) In some cases, where fault presents a clear danger, and where such a danger materializes, it may be reasonable to presume a causal link, unless there is a demonstration or indication to the contrary;
(f) Statistical evidence may be helpful as indicative but not determinative. In particular, where statistical evidence does not indicate causation on the balance of probabilities, causation in law may nonetheless exist where evidence in the case supports such a finding;
(g) Even where statistical and factual evidence do not support a finding of causation on the balance of probabilities with respect to particular damage (e.g. death or sickness), such evidence may still justify a finding of causation with respect to lesser damage (e.g. slightly shorter life, greater pain);
(h) The evidence must be carefully analyzed to determine the exact nature of the fault of breach of duty and its consequences as well as the particular character of the damage which has been suffered, as experienced by the victim;
(i) If after consideration of these factors a judge is not satisfied that the fault has, on his or her assessment of the balance of probabilities, caused any real damage then recovery should be denied.

219 Based on this jurisprudence I have no difficulty concluding that the negligence of Dr. Penney and Dr. Healey, which will be specifically detailed later in the Reasons, caused or contributed to the injuries suffered by the Plaintiffs.

The Standard of Care

220 The applicable standard of care which the court must apply in medical malpractice cases is not one of perfection. Liability cannot be imposed on physicians for everything that might go wrong. Rather, the standard to be applied is to require the physician to conduct him/herself with a reasonable degree of skill and knowledge. The physician must exercise a reasonable degree of care in his/her diagnosis and treatment of the patient's medical condition. The degree of skill, knowledge and care expected of a physician is that of the normal, prudent physician. The standard, although an objective one, will vary according to the level of experience attained by the physician whose performance is under consideration. His/her level of experience and expertise which he/she has achieved and the circumstances under which he/she practices will be considered.

221 The Defendants, of course, do not dispute that a physician owes a duty to use reasonable care, skill and judgment in the provision of care to his/her patient.

222 Crits and Crits v. Sylvester et al. (1956), 1 D.L.R. (2d) 502 (Ont. C.A.), aff'd (1956), 5 D.L.R. (2d) 601, [1956] S.C.R. 991 (S.C.C.) remains one of the leading authorities with respect to the standard of care. At page 508 of the Court of Appeal's decision, the court said:

> ... Every medical practitioner must bring to his task a reasonable degree of skill and knowledge and must exercise a reasonable degree of care. He is bound to exercise that degree of care and skill which could reasonably be expected of a normal, prudent practitioner of the same experience and standing, and if he holds himself out as a specialist, a higher degree of skill is required of him than of one who does not profess to be so qualified by special training and ability.
>
> The standard of care required of a medical practitioner has been clearly and succinctly stated by Lord Hewart C.J. in R. v. Batement (1925), 41 T.L.R. 557 at p. 559: "If a person hold himself out as possessing special skill and knowledge and he is consulted, as possessing such skill and knowledge, by or on behalf of a patient, he owes a duty to the patient to use due caution in undertaking the treatment. If he accepts the responsibility and undertakes the treatment and the patient submits to his direction and treatment accordingly, he owes a duty to the patient to use diligence, care, knowledge, skill and caution in administering the treatment. ... The law requires a fair and reasonable standard of care and competence."
>
> ...

223 R.E. Holland, J., in Dale v. Munthali et al. (1977), 16 O.R. (2d) 532 at 538-9 (H.C.J.), aff'd (1978), 21 O.R. (2d) 554, 90 D.L.R. (3d) 763 (Ont. C.A.), noted the following:

> With respect, the reference to a practitioner "of the same experience" does not appear to be supported by the authorities. The standard to be applied to Dr. Munthali should not be lower by reason of his inexperience. The standard which could reasonably be expected of a normal, prudent practitioner must be applied, not only in connection with treatment, but also in diagnosis.

224 Therefore, the court should look to the standard of care exhibited by the reasonably competent physician in the same group in which the Defendant physicians practice or belong. In Ellen I. Picard and Gerald B. Robertson, Legal Liability of Doctors and Hospitals in Canada, 2nd ed. (Scarborough: Carswell, 1996) at 193, the following was stated with respect to the degree of risk involve:

> The standard of care is influenced by the foreseeable risk. As the degree of risk involved in a certain treatment or procedure increases, so rises the standard of

> care expected of the doctor. The principle was expressed succinctly in one case as follows: the "degree of care required by the law is care commensurate with the potential danger."

225 Dickson J., as he then was, in the Queen v. Côté et al., [1976] 1 S.C.R. 595, (1974), 51 D.L.R. (3d) 244, 3 N.R. 341 (S.C.C.), noted that:

> It is not necessary that one foresee the precise concatenation of events'; it is enough to fix liability if can foresee in a general way the class or character of injury which occurred.

226 While a member of the Manitoba Court of Appeal, Dickson J., in School Division of Assiniboine South, No. 3 v. Greater Winnipeg Gas Company Limited, [1971] 4 W.W.R. 746, 21 D.L.R. (3d) 608, [1971] M.J. No. 39 at para 13 (QL), put this in another way:

> It is enough to fix liability if one could foresee in a general way the sort of thing that happened. The extent of the damage and its manner of incidence need not be foreseeable if physical damage of the kind which in fact ensues is foreseeable.

227 Generally, conformity with a common practice will exonerate a physician of a complaint of negligence. However, there are situations where the standard practice itself may be found to be negligent such as where the practice is fraught with obvious risks or, put another way, where a custom ignores the elementary dictates of caution. In ter Neuzen v. Korn, [1995] 3 S.C.R. 674 at 696-7, the late Sopinka J. said:

> It is evident from the foregoing passage that while conformity with common practice will generally exonerate physicians of any complaint of negligence, there are certain situations where the standard practice itself may be found to be negligent. However, this will only be where the standard practice is fraught without obvious risks' such that anyone is capable of finding it negligent, without the necessity of judging matters requiring diagnostic or clinical expertise.

228 Reference to Johnston v. Wellesley Hospital, [1971] 2 O.R. 103 at 113-4 is also helpful. The court said:

> On the other hand, where, contrary to the Crits v. Sylvester case, the act or omission complained of pertains to a strictly medical matter, where medical judgment and technique are involved, the defence that the act was done in accordance with standard recognized medical practice is, in most cases, if not always, a complete answer to an allegation of negligence; see Gent and Gent v. Wilson, [1956] O.R. 257 at pp. 265-6, 2 D.L.R. (2d) 160 at p. 165, where Schroeder, J.A., in delivering the judgment of the Court of Appeal, stated:

> Each case must, of course, depend upon its own particular facts. If a physician has rendered treatment in a manner which is in conformity with the standard and recognized practice followed by the members of his profession, unless that practice is demonstrably unsafe or dangerous, that fact affords cogent evidence that he has exercised that reasonable degree of care and skill which may be required of him.

229 The proper exercise of judgment by a physician is one that is made after his/her weighing, assessing and evaluating such information as may be available. What "may" be available includes the results of tests or consultations that should have been carried out. In other words, the information upon which a judgment or decision is reached must be as complete as is reasonably available and possible in the circumstances. In this regard, see Chattu v. Pankratz, [1990] B.C.J. No. 704 (B.C.S.C.), aff'd [1991] B.C.J. No. 481 (B.C.C.A.) (QL), (underlining mine).

230 There are numerous components to the duty, or standard, of care. For the purposes of this review of the relevant law, I note the following:

(a) The duty to be competent and knowledgeable in the area of medicine practiced by the physician at the relevant time: - this involves his/her reasonably keeping abreast of improvements in patient care through attendances at continuing medical education conferences; reading authoratated journals and, if possible, taking advantage of professional collegiality opportunities to discuss developments concerning the physician's area or areas of practice. In ter Neuzen v. Korn (supra), the Supreme Court of Canada, at pp. 693-4 said:

> It is also particularly important to emphasize, in the context of this case, that the conduct of physicians must be judged in the light of the knowledge that ought to have been reasonably possessed at the time of the alleged act of negligence. (Here, counsel for the defendants argued that the standard of care with respect to some of the issues in this trial was fluid (i.e. was in transition) before, during, and after 1983 and that, therefore, the court should hear evidence regarding the alleged changes in the standard in order to tie down what was the standard in 1983. I allowed him to pursue this position which, I note, added significantly to the length of this trial and my review of the evidence.) As Denning L.J. eloquently stated in Roe v. Ministry of Health, [1954] 2 All E.R. 131 (C.A.), at p. 137: "[w]e must not look at the 1947 accident with 1954 spectacles". That is, courts must not, with the benefit of hindsight, judge too harshly doctors who act in accordance with prevailing standards of professional knowledge. This point was also emphasized by this Court in Lapointe, supra, at

> pp. 362-63: ... courts should be careful not to rely upon the perfect vision afforded by hindsight. In order to evaluate a particular exercise of judgment fairly, the doctor's limited ability to foresee future events when determining a course of conduct must be borne in mind. Otherwise, the doctor will not be assessed according to the norms of the average doctor or reasonable ability in the same circumstances, but rather will be held accountable for mistakes that are apparent only after the fact.

(b) The duty to make a diagnosis and to advise the patient of the diagnosis: in Picard and Robertson, supra, the authors state the following at p. 245:

> The duty to diagnose requires doctors to take a full history, use appropriate tests and consult or refer if necessary. They must take reasonable care to detect signs and symptoms and formulate a diagnosis using good judgment. They cannot act only on what they are told, nor ignore what they are told. Sophisticated tests and continuing knowledge of disease must be employed when appropriate. ... (See also Scott v. Mohan, [1993] A.J. No. 592 (Alt. Q.B.)).

(c) The duty to refer a patient to another physician in a timely fashion where the attending physician cannot, him/herself, make a diagnosis or where he/she has a reasonable doubt concerning the correctness of the diagnosis; - in coming to a diagnosis, the physician must, as aforesaid, conduct a thorough patient history and conduct the necessary tests. Where, however, the physician cannot make a diagnosis or encounters difficulty in making a diagnosis, he/she must refer the patient to a physician possessing expertise in the area in question. See Picard and Robertson, supra, at page 246, where the authors state:

4. The Duty to Refer

(a) When to Refer

> Recognizing that no person is infallible or the fountain of all knowledge and skill, the Supreme Court of Canada has said there is a duty upon a doctor in some circumstances to refer a patient to

> another doctor. The term "refer" may mean either that the doctor confer with a colleague and then carry on treatment personally, or that the patient is passed completely into the care of another doctor.
>
> There is no absolute test to ascertain when a doctor should refer or consult, but the cases suggest that it is indicated when:
>
> 1. the doctor is unable to diagnose the patient's condition;
> 2. the patient is not responding to the treatment being given;
> 3. the patient needs treatment which the doctor is not competent to give;
> 4. the doctor has a duty to guard against his or her own inexperience (e.g. the student doctor); or
> 5. the doctor cannot continue to treat a patient (e.g., while on vacation).

I agree that the duty to refer involves a matter of judgment. That, however, does not mean that a court cannot examine the grounds upon which the judgment is exercised.

(d) The duty to treat a patient in a holistic manner;

(e) The duty to disclose to the patient all material risks in attending the proposed care. The patient has "a right to know what risks are involved". In Hollis v. Dow Corning Corp., [1995] 4 S.C.R. 634 (S.C.C.), La Forest J. had the following to say:

> ... The doctrine of informed consent' dictates that every individual has a right to know what risks are involved in undergoing or foregoing medical treatment and a concomitant right to make meaningful decisions based on a full understanding of those risks. As Robinson J. observed in Canterbury v. Spence, 464 F. (2d) 772 at 780 (D.C. Cir. 1972):
>
> > True consent to what happens to one's self is the informed exercise of a choice, and that entails an opportunity to evaluate knowledgeably the options available and the risks attendant upon each. The average patient has little or no understanding of the medical arts, and ordinarily has only his physician to

> whom he can look for enlightenment with which to reach an intelligent decision. From these almost axiomatic considerations springs the need, and in turn the requirement, of a reasonable divulgence by physician to patient to make such a decision possible.
>
> ... The doctrine of informed consent' was developed as a judicial attempt to redress the inequality of information that characterizes a doctor-patient relationship. ...

231 Dr. Penney, did not appraise Mrs. Crawford as to the full extent of the material risks, special or unusual, she faced or the available options. She had a right to know what risks were involved in proceeding according to Dr. Penney's plan. It is not good enough for Dr. Penney to say that he would have referred Mrs. Crawford elsewhere had she asked him to do so.

232 The Defendants argue that there is no evidence substantiating any material difference in risk level between Ottawa/Kingston, with or without an obstetrician, on the one hand, and Smiths Falls on the other. In my opinion, there was evidence about the different levels of care from both sides of this case. Indeed, Dr. Penney's evidence was that he initially discussed this with Mrs. Crawford and, of course, he testified that he felt that it was appropriate to consult with an expert at a tertiary care facility.

233 I am satisfied that Dr. Penney's failure to adequately disclose the various risks to Mrs. Crawford contributed to the damages incurred by her and Melissa. I am satisfied that Mrs. Crawford would not have proceeded with a vaginal delivery at the Smiths Falls Hospital under Dr. Penney's care had the risks and options been properly explained to her. I do not accept the Defendants' submission that the risks were "minor" ones nor do I accept their submission that if the induction of labour failed, a safe caesarean section could have been performed. The facts prove otherwise.

234 In addition to the foregoing citations, these components of the duty of care are distilled from Crick v. Mohan (1993), 142 A.R. 281 (Alta. Q.B.), [1993] A.J. No. 592 (QL); Chow (Litigation Guardian of) v. Wellesley Hospital, [1999] O.J. No. 279 (Ont. Gen. Div.) (QL); Vail v. MacDonald (1973), 1 O.R. (2d) 653 (Ont. C.A.), aff'd (1976), 66 D.L.R. (3d) 530 (S.C.C.); Wade v. Sisters of Saint Joseph of the Diocese of London, [1978] O.J. No. 413 (QL); Dowhan v. Coats, [2000] O.T.C. 441 (Ont. S.C.J.), [2000] O.J. No. 2343 (QL); and Reibl v. Hughes, [1980] 2 S.C.R. 880 (S.C.C.); Hopp v. Lepp, [1980] 2 S.C.R. 192 (S.C.C.); and Videto v. Kennedy (1981), 33 O.R. (2d) 497, 125 D.L.R. (3d) 127 (Ont. C.A.).

235 I note the decision of Lissaman J. in Chow (Litigation Guardian of) v. Wellesley Hospital, supra. At p. 28, he noted the decision of Haines J. in Kolesar v. Jeffries (1976), 9 O.R. (2d) 41, as follows:

> On a ward with a great many patients the medical record becomes the common source of information and direction for patient care. If kept properly, it indicates on a regular basis the changes in the patient's condition and alerts staff to developing dangers. And it is perhaps trite to say that if the hospital enforced regular entries during each nursing shift, a nurse could not make an entry until [she] had first performed the services required of her. In Kolesar's case the absence of entries permits of the inference that nothing was charted because nothing was done (pp. 47-8).

Conflicting Expert Evidence Regarding the Standard of Care

236 The Defendants argue that in cases where professional negligence is at issue, the trier of fact must depend on the evidence of experts in the field when establishing the appropriate standard of care since the standard is not that of the reasonable man but, rather, of the rational professional of comparable qualifications, competence and standing. (See Campbell v. Patterson, [1985] O.J. No. 1294 at para. 34 (QL)). They argue that the standard of care to which a physician is to be held is flexible enough to allow for variations within the standard based on personal practice shaped by the surrounding body of practitioners. They submit that the law recognizes various circumstances where the subjective practice or decision-making process of a physician may meet the standard in the opinion of some practitioner while not in the judgment of others. They rely on the decision of MacKenzie J. in Cacciacarro v. Makhan, [1992] O.J. No. 2779 (Ont. Gen. Div.) (QL), where MacKenzie J. quoted from Hunter v. Hanley (1955), S.L.T. 213 at 217, as follows:

> In the realm of diagnosis and treatment there is ample scope for genuine difference of opinion and one man clearly is not negligent merely because his conclusion differs from that of other professional men.

237 They also rely heavily on the decision of L'Heureux-Dubé J. in Lapointe v. Chevrette, [1992] 1 S.C.R. 351 at 363-4 (S.C.C.), where she said:

> Given the number of available methods of treatment from which medical professionals must at times choose, and the distinction between error and fault, a doctor will not be found liable if the diagnosis and treatment given to a patient correspond to those recognized by medical science at the time, even in the fact of competing theories. As expressed more eloquently by André Nadeau in La responsabilité medicale (1946), 6 R. du B. 153, at p. 155:
>
> > [TRANSLATION] The courts do not have jurisdiction to settle scientific disputes or to choose among divergent opinions of physicians on certain subjects. They may only make a finding of fault where a violation of universally accepted rules of medicine has occurred. The courts should not involve themselves in controversial questions of assessment having to do

> with diagnosis or the treatment of preference.
>
> Or, as summarized by Brossard J. in Nencioni v. Mailloux, [1985] R.L. 532 (Sup. Ct.) at p. 548:
>
> > [TRANSLATION] ... it is not for the court to choose between two schools of scientific thought which seems to be equally reasonable and are founded on scientific writings and texts ...

238 The Defendants rely, in particular, on the decision of the House of Lords in Maynard v. West Midlands Regional Health Authority, [1985] 1 All E.R. 635, which states the following principle:

> In the realm of diagnosis and treatment, there is ample scope for genuine differences of opinion and one man clearly is not negligent merely because his conclusion differs from that of other professional men. ... The true test for establishing negligence in diagnosis or treatment on the part of a doctor, is whether he has been proved to be guilty of such failure as no doctor of ordinary skill would be guilty if acting with ordinary care. ...
>
> As well, they rely on the following quote at page 638:
>
> > Differences of opinion and practice exist, and will always exist, in the medical as in other professions. There is seldom any one answer exclusive of all others to problems of professional judgment. A court may prefer one body of opinion to the other: but that is not basis for a conclusion of negligence.

239 In substance, therefore, the Defendants argue that they have produced evidence representing a respectful body of opinion with respect to the treatment that was provided by the Defendants. This school of thought approved of the Defendants' conduct. Therefore, the Defendants argue that they cannot be found at fault.

240 The Plaintiffs argue that if this was a correct proposition, which they challenge, no Plaintiff would ever succeed in establishing negligence since a defendant doctor would only need to locate colleagues or practitioners sharing similar opinions to come forward to approve of the treatment rendered. They rely on, among others, the Ontario Court of Appeal's decision in Brain v. Mador, 32 C.C.L.T. 157, (May 13, 1985), leave to appeal to S.C.C. refused (1985) 64 N.R. 240, (1985) 13 O.A.C. 79. In that case, the physicians argued that the trial judge had erred in preferring one responsible body of professional opinion to another. They relied on the following statement of Lord

Scarman's in the Maynard case, supra:

> For in the realm of diagnosis and treatment negligence is not established by preferring one respectable body of opinion to another. Failure to exercise the ordinary skill of a doctor (and the appropriate speciality if he is a specialist) is necessary. ...

241 Counsel for the Plaintiffs point out that Lacourciere J.A. qualified this principle in the Brain v. Mado, supra, where, at p. 89-90, he said:

> ... Failure to exercise the ordinary skill of a doctor (in the appropriate speciality, if he be a specialist) is necessary. (Underlining mine)

> [7] The last sentence quoted is consistent with the test applied in Canada in medical malpractice cases where negligence is established by proof that the specialist failed to possess or to exercise the reasonable degree of learning and skill possessed by the average specialist in the field. See Wilson v. Swanson, [1956] S.C.R. 804, at p. 817. Professional opinions expressed have an important bearing on the latter test but, in my view, it is for the trier of fact to weigh the conflicting testimony and ultimately assess the weight to be given to the evidence.

242 The Plaintiffs rely, as well, on the Alberta Court of Appeal decision in Kehler v. Myles (1989), 92 A.R. 345 where the court said:

> Mr. Cherniak says the trial judge paid too much attention to Maynard v. West Midlands R.H.A., [1984] 1 W.L.R. 634 (H.L.). He urges that the trial judge erroneously bound himself by Lord Scarman's speech in Maynard which suggests that where there is wholesale disagreement among arrayed experts in medical negligence cases, it is impossible to say that negligence has been established because the standard of care must be left in doubt. The appellant is correct. There is no necessitated dismissal of a medical negligence claim simply because honest and competent experts disagree over a doctor's diagnosis or treatment. Disagreement notwithstanding, the only question to be answered remains: has negligence been established under proof, by a preponderance of evidence, that the specialist failed to possess or to exercise a reasonable degree of learning or skill possessed by the average specialist in the field? This was affirmed by Lacourciere, J.A. in Brain v. Mador (1985), 32 C.C.L.T. 157 (Ont. C.A.) and by this court in Cope v. Laydon, November 28, 1984, No. 16455. [emphasis added]

243 The Plaintiffs also rely on Bennett v. Peattie, [1925] O.L.R. 233 at 242 where the court said:

> When the case is complicated by the introduction of opinion evidence, particularly in cases of a medical nature, where doctors invariably disagree, it is, I think, the duty of the judge to arrive at his opinion after carefully weighing and considering the evidence of the experts, and availing himself of all the assistance they are able to give him, and himself to determine the question of fact in the light of the evidence, and it is not enough for him to say I doubt' and cannot resolve the doubt because an expert says I doubt'.

244 The Supreme Court of Canada dealt with this issue in Shawinigan v. Naud, [1929] 4 D.L.R. 57 at 59, as follows:

> It must be admitted that the Courts are sometimes greatly embarrassed by the lack of unanimity between the professional men who express divergent views in scientific, and as it happens in the present case, medical matters ... But ... the law makes no distinction between professional men and other witnesses. Their evidence must be appreciated like that of the others, and the Court is bound to examine it and to weigh it as any other evidence given in the case.
>
> Moreover, when as here, an agglomeration of facts and circumstances which have preceded, accompanied, or followed the accident, has been testified to, it is essential that the Judge should give them all the necessary consideration. Evidently, he must look at them in the light of the medical evidence; but he must not leave them exclusively to the appreciation of the physicians, and it is incumbent upon him to control them and give his own final decision upon the subject.

245 Accordingly, the Plaintiffs in this case submit that it is a trial judge's function to evaluate conflicting testimony, including expert testimony, and to determine the facts he/she accepts by proof or inference. They argue that any opinions by experts must be weighed in accordance with such findings of fact and in accordance with consideration of the reliability of such opinion evidence. I agree.

246 Our Court of Appeal in Tacknyk v. Lake of the Woods Clinic and Brown, [1982] O.J. No. 170 (Ont. C.A.) (QL), held that:

> ... the standard of care is a matter for the Court and not medical experts although their view will be taken into consideration in setting the appropriate standard.

247 Reference should also be made to Sopinka J.'s judgment in Snell v. Farrell, supra, and the Supreme Court of Canada's decision in Dorion v. Beaupre and Bolduc, [1991] 1 S.C.R. 374 at 430-1.

248 I conclude from the foregoing that, indeed, the appropriate standard of care is determined by the trier of fact. Where there are conflicting expert opinions, the trier of fact must weigh the conflicting testimony and ultimately assess the weight to be given to the evidence. "There is no necessitated dismissal of a medical negligence claim simply because honest and competent experts disagree over a doctor's diagnosis or treatment".

249 The Defendants are, however, correct in their submissions that there can be variations in the applicable standard of care, harking back to Maynard, supra, that, "in the realm of diagnosis and treatment there is ample scope for genuine difference of opinion and one man clearly is not negligent merely because his conclusion differs from that of other professional men". (See Cacciacarro v. Makhan, supra; Wilson v. Swanson, [1956] S.C.R. 804 at 811-2 (S.C.C.); and Lapointe v. Chevrette, supra.)

The Locality Rule

250 The Defendants argue that within the general standard of family practitioners within the Province of Ontario there is a differentiation between the standard to which urban and rural physicians are held. They rely on the Supreme Court of Canada's decision in Wilson v. Swanson, supra and in particular the following quote at p. 817:

> The test of reasonable care applies in medical malpractice cases as in other cases of alleged negligence. As has been said in the United States, a medical man must possess and use, that reasonable degree of learning and skill ordinarily possessed by practitioners in similar communities in similar cases ...

251 The Plaintiffs' position is that the standard of care to be applied to a family physician practicing obstetrics in a community hospital is not lowered by reason only of the location of his/her practice or his/her lesser experience. They rely on the following extracts from Allen M. Linden, Canadian Tort Law, 6th ed. (Toronto: Butterworths, 1997) at 157-160 and, in particular, on the following extracts:

> c) Locality Rule
>
> It was once clear that doctors were protected form tort liability if they merely lived up to the standard of the profession in their own community or similar localities. Someone in country practice' did not have to be as proficient as an urban physician. This idea still has devotees. In the recent case of McCormick v. Marcotte, [1972] S.C.R. 18, a doctor was held liable when he performed an obsolete type of operation on a patient because he was unable to do the one recommended by a specialist. Mr. Justice Abbott imposed liability and stated that a doctor is required to possess and use, that reasonable degree of learning and skill ordinarily possessed by practitioners in similar communities in similar

> cases'. He quoted, however, from the trial judge to the effect that this was a hospital in a well-settled part of the Province [Quebec] within easy reach of the largest centres of population', which makes clear that the statement was an obiter dictum only.
>
> The locality rule should be abandoned. This would reflect the improvements in modern communications, medical education and the uniformity of examinations for doctors in Canada. In the case of Town v. Archer, [1902] O.J. No. 163, Chief Justice Falconbridge criticized the locality rule' on the ground that all the men practising in a given locality might be equally ignorant and behind the times, and regard must be had to the present advanced state of the profession and to the easy means of communication with, and access to the large centres of education and science ...'. In Town v. Archer the community in question was Port Perry, which at that time was only two hours travel from Toronto, then a city of a quarter of a million people, with three medical colleges and numerous hospitals. Communications and access to information have improved greatly since then so that there is even less reason to differentiate between localities. Moreover, a principle that permits an inferior brand of medicine for rural Canadians cannot be countenanced. A single standard may promote an upgrading of medical practice across the country. It would also enable Plaintiffs to secure medical evidence from a larger pool of experts, a distance advantage.

252 In this case, I would make a similar observation to that of Mr. Justice Abbott. The Smiths Falls Hospital, although it is a community hospital, is situated in a well-settled part of Ontario within easy reach of Ottawa or Kingston, both of which are, according to the evidence, able to provide expert and specialist care. I also agree with Justice Linden's comment that the locality rule should be abandoned, at least in instances where the community in question is located only a few miles from one or more major centres. However, I can and do decide this case based on the law as it exists today.

253 The Defendants called Dr. Drummond to testify regarding the standard of care of a family doctor who practices obstetrics in a rural setting. His evidence did not support the application of a lower standard of care for Drs. Penney and Healey who were, of course, two family practitioners practicing obstetrics in a rural setting. I agree with Dr. Tannenbaum's evidence that a physician practicing in a small town must be particularly vigilant to risk factors because of the lack of availability of immediate help. The need to refer patients to specialists, therefore, may be greater in a rural setting than in an urban setting. A rural physician practicing his/her profession is under the same obligation as is a physician with a similar practice in an urban setting to keep up with developments in areas of medicine pertinent to their practices.

254 Bearing in mind that in 1983, in Ontario, fifty percent of babies were delivered by family

physicians, particularly in rural areas, it would be a sad comment indeed for the law to apply a lesser standard of care in some communities as opposed to others. This is not to say, however, that all physicians possess the same ability and have access to the same resources. These physicians and localities must recognize their limitations and refer patients, where possible, to experts and to larger medical facilities.

DID DR. GILLIESON OWE A DUTY OF CARE TO THE PLAINTIFFS?

255 The Defendants submit that a physician's duty to exercise care with respect to a particular patient arises only in the context of a physician-patient relationship a relationship characterized by the physician agreeing to treat the patient. In my opinion, the Defendants' position is too narrow. I agree that a finding of negligence cannot exist absent a duty of care; however, a duty of care can arise in circumstances beyond the strict physician/patient relationship. If Dr. Gillieson was consulted by Dr. Penney for an opinion, he, Dr. Gillieson, was aware that Dr. Penney would consider and probably rely on that opinion. Therefore, had he been consulted, Dr. Gillieson would have known that any advice he gave would have an impact on the treatment that would be provided to the patient. Therefore, he would have been aware that there was a proximate relationship between him and the patient.

256 In this respect, physicians are no different, in my opinion, than other professionals, with respect to their possible liability to third parties. In this regard I rely on the comments of Picard and Robertson, supra, where the following appears at pp. 182-83:

> The examples discussed above involve situations in which it is reasonably well established that a doctor owes a duty to a third party. In other situations, when deciding whether such a duty existed, the court would be guided by general principles of tort law, and in particular, the requirement of proximity. If it is reasonably foreseeable that negligence by the doctor may cause harm to a third party (whether identifiable or not), and if there is sufficient proximity between the doctor and the third party, a duty of care will arise (unless there are reasons of policy which dictate otherwise), and breach of that duty will result in the doctor being liable to the third party.

THE APPROPRIATE APPLICABLE STANDARD OF CARE OF DOCTORS PENNEY AND HEALEY

257 The Plaintiffs' position is that the standard of care for practitioners can, in certain circumstances, be equated with that of specialists. They rely on the following extract from Picard and Robertson, supra, at pp. 188-9:

> Doctors may hold themselves out as a specialist either by formal certification, or by the more subtle means of gradually restricting their practice to a particular type of medical problem, patient, or treatment, or even by undertaking work

> which is normally done by a specialist. Once they do so, they will be expected to practice their profession at the standard of care required of the specialist.

258 In the circumstances of this case, I am not prepared to find that Drs. Penney and Healey held themselves out as specialists notwithstanding that each devoted a considerable portion of their professional life and career to obstetrics.

259 I prefer the reasoning of the court in Pierre (Next friend of) v. Marshall (1993), 152 A.R. 161, [1994] 8 W.W.R. 478, (1993) 20 Alta. L.R. (3d) 343, [1993] A.J. No. 1095 (QL), where at para. 33, the court said:

> In this case, Dr. Marshall is a general practitioner, practicing obstetrics in Calgary, Alberta. He is not an obstetrician, gynecologist or endocrinologist and his standard of care is not to be measured against that of experts in those fields, but he is expected to meet the standard of care reasonably expected of the normal, prudent general practitioner practicing obstetrics in communities similar to Calgary. ...

260 Therefore, I conclude that the applicable standard of care with respect to Drs. Penney and Healey is that attributable to the normal, prudent general practitioner practicing obstetrics in 1983 in a fairly small community but which has a quick and easy access to major medical centres and experts. This includes the ability to recognize their own limitations (see de la Giroday v. Brough, [1997] 6 W.W.R. 585 at 589).

PARTICULAR FINDINGS OF NEGLIGENCE

261 In addition to, or as an extension of earlier findings in these Reasons for Decision, and based on the foregoing legal principles, I find that Drs. Penney and Healey were negligent in the following respects:

(a) Both doctors were, or should have been aware, in 1983, that shoulder dystocia was associated with macrosomia and that macrosomia was associated with maternal obesity, family history of large gestational age infants, and gestational diabetes or diabetes. They were, or should have been aware, of the following principles contained in Jack A. Pritchard and Paul C. MacDonald, Williams Obstetrics 16th ed. (New York: Appleton-Century Crofts, 1980):

> Fetal Macrosomia
>
> With large fetus' dystocia may arise because the head becomes not only larger but harder and less malleable with increasing weight. Moreover,

after the head has passed through the pelvic canal, dystocia may be caused by the arrest of even larger shoulders at either the pelvic brim or outlet.

Diagnosis of Fetal Macrosomia

... competent clinical examination should enable experienced examiners to arrive at a fairly accurate estimate. Sonographic evaluation of the dimensions of the head, thorax and abdomen often enhances appreciably the confidence of the estimate.

Management Etiology

Shoulder dystocia is associated with maternal obesity, excessive weight gain, oversized infants, history of large siblings, and maternal diabetes.

Effects on the Fetus

With each uterine contraction, large amounts of blood are transferred from the baby's trunk to its head. The angulation of the neck and the compression of the chest, which interfere with cardiac function, impair the venus return. The intracranial vascular system of the fetus cannot compensate for the excessive intravascular pressure.

Under these conditions anoxia develops and may be accompanied by hemmorrhagic effusions. If this condition persists too long the baby suffers irreparable brain damage.

Drs. Penney and Healey failed to adopt or follow an appropriate plan of treatment in light of this knowledge.

(b) In the face of various pregnancy risks, some of which were identified by Dr. Penney during his care of Mrs. Crawford, he failed to recognize his lack of skill and experience in his care of Mrs. Crawford and Melissa and, in particular, failed to refer Mrs. Crawford to an expert(s) for opinions and/or care. Notwithstanding

that Dr. Penney did have some experience with mascrosomic babies, he should have been aware that the delivery of Mrs. Crawford's baby was beyond the competence of a family physician, even one with his background and knowledge. Both Drs. Penney and Healey were aware that the Smiths Falls Hospital did not have adequate facilities to provide intensive care to a distressed neonate. These failures contributed, in a significant manner, to the injuries sustained by Melissa Crawford. They materially increased the risk of harm or, as Plaintiffs' counsel submit, Dr. Penney failed to take steps to reduce the risk of harm occurring.

(c) Drs. Penney and Healey made no inquiry into a possible explanation for the three day labour and the use of forceps that Mrs. Crawford underwent when giving birth to her first child, Maureen. This delay and the use of forceps could have suggested obstructed labour.

(d) Both doctors failed to consider that a woman's ability to deliver a macrosomic baby without difficulty on an earlier occasion did not dictate that she could successfully do so again.

(e) Both doctors failed to appreciate that the large discrepancy between the birthweights of Mrs. Crawford's first two children constituted a warning that Mrs. Crawford tended to have diabetes in pregnancy.

(f) While, in 1983, ultrasound technology was not used to the extent it is used in obstetrical patient care today, Dr. Penney was one of the first physicians to make extensive use of it. He knew that the baby would be a large one and, notwithstanding the various risk factors, he did not employ timely ultrasound technology in this matter. He should have. Trained radiologists were available in Smiths Falls in 1983. Ultrasound might have, and probably would have, revealed the possibility of shoulder dystocia. The lack of symmetry in growth might have been observed and this might have led to more effective management of the pregnancy. Even though there continues to be some debate regarding the usefulness of ultrasound to detect shoulder dystocia, an attempt should have been made.

(g) Given the risk factors that were present, Dr. Penney was negligent in failing to properly test Mrs. Crawford for gestational diabetes by way of either, or both, a glucose challenge test or a glucose tolerance test especially between twenty four and twenty eight weeks of pregnancy. Risk factors include the fact that Mrs. Crawford was in labour for three days with her first baby, her second child was very large, she was obese given her short stature, she was forty years old, there was a family history of diabetes, and the fetus she was carrying was a large one. The association between gestational diabetes and perinatal death or morbidity was known in 1983 and it was known that urinalysis and random blood sugar testing were not adequate screening methods.

(h) Dr. Penney failed to give instructions to the hospital to check for proteinuria in an appropriate manner after Mrs. Crawford's admission to the hospital on

December 21st.

(i) Drs. Penney and Healey failed to consider seriously a caesarean section as an alternative to a vaginal delivery. The risk of shoulder dystocia was a significant one. The alternative procedure should have been discussed with Mrs. Crawford notwithstanding that, in the final analysis, there must be a medical indication for the procedure. There actually was such an indication. This alternative should have been discussed with her at an early stage during her pregnancy, near the end of her pregnancy, and, certainly, during her hospitalization. Even if Dr. Braithwaite's evidence is the acceptable standard, Dr. Penney did not meet it. Dr. Braithwaite testified that if one were "presented with risk factors that would have and should have alerted her attending (sic "physician") that she was at increased risk for requiring intervention during the labour process ... the presence of those risk factors were in and of themselves - presented a need to assess very closely." There was, in my opinion, no close assessment or exercise of medical judgment. I am not unmindful of the fact that caesarean sections carry risks. I need not rule on whether, in 1983, there was a rigid cut point for fetal size beyond which a physician was required to delivery by way of caesarean section.

(j) In the alternative, Dr. Penney failed to induce the delivery of the baby in a timely fashion. He should not have waited after Mrs. Crawford's December 21st admission.

(k) Dr. Penney failed to ensure that Dr. Healey was properly briefed regarding the risk factors associated with Mrs. Crawford's pregnancy. Dr. Healey should not have given the green light to the induction without a more careful examination of her history and without conducting a proper physical examination.

(l) Dr. Penney failed to stop the injection of oxytocin after normal contractions began and, as well, after the shoulder dystocia was discovered.

(m) As aforesaid, Dr. Penney was aware, or should have been aware, that the various pregnancy risks which he had observed constituted a serious risk of macrosomia and, therefore, shoulder dystocia. He was not aware, as he should have been, that the risks were additive. I reject the argument of counsel for the Defendants that cataloguing the risk factors for macrosomia and considering those along with the large fetal size is counting the same risk twice. This was a high risk pregnancy. Therefore, I, similarly reject Dr. Livingstone's evidence that Mrs. Crawford's pregnancy was a low risk one. Dr. Penney should have, but did not, investigate current medical literature with respect to macrosomia, gestational diabetes, and shoulder dystocia given his lack of expertise and his decision to continue to manage Mrs. Crawford's pregnancy. Had Dr. Penney employed the "Guide to Pregnancy Risk Grading" contained in The Ontario Antenatal Records, he would have, in the early stages of the pregnancy, known that this was a "pregnancy at risk" and at the later stages of pregnancy, a "pregnancy at high risk". It is not insignificant that this form, in use in 1983, actually uses the word "gestational"

opposite the risk factor of diabetes. Dr. Sermer, in my opinion, went too far in his testimony by stating that, not only was Jeanette Crawford's pregnancy a low risk one, she could have been managed by a mid wife.

(n) Drs. Penney and Healey failed to stipulate an adequate plan of action in the event that shoulder dystocia was encountered during delivery. The decision of Dr. Penney to have Dr. Healey and the anesthesist on call was, quite simply, not an appropriate plan. I am unimpressed with the Defendants argument that Dr. Penney was "perhaps slightly more prepared in this case, without being especially so".

(o) The evidence establishes that shoulder dystocia is a true obstetric emergency. However, as aforesaid, the evidence also shows that it may be anticipated. It cannot be predicted with any certainty; however, that does not mean that the possibility of it occurring can be ignored or under-estimated. Therefore, it is not enough for the Defendants to say that they were faced with an emergency and tried to perform at their best in dealing with it. There must be a carefully considered plan of action in the event that shoulder dystocia does occur. Such a plan was not in place at Melissa's delivery. In addition, if, as the Defendants argue, shoulder dystocia is an obstetrical nightmare, that is all the more reason to take reasonable precautions to avoid it especially since there is no, to use the Defendants' word, "cookbook" approach to shoulder dystocia.

(p) There is considerable doubt in my mind as to when Dr. Penney performed the episiotomy. Accordingly, I make no finding of negligence with respect to this issue. Similarly, I do not feel it necessary to determine the issue as to whether Dr. Penney attempted a cleidotomy prior to Dr. Healey's arrival. I do note, however, that in each instance Dr. Penney's testimony was, to some extent, contradicted by the written records.

(q) Dr. Healey was negligent in not conducting a physical examination of Mrs. Crawford upon being asked for a consultation on whether to induce labour. Dr. Healey could not have met the requirements of his mandate without a physical examination. I find that Dr. Healey did not exercise an independent opinion concerning the propriety of a decision to induce labour. There is no discussion in his consultation note of the various risk factors faced by Mrs. Crawford and his assessment of them.

(r) Dr. Penney failed to diagnose shoulder dystocia in a timely manner thus consuming valuable time in his attempts to deliver Melissa and summoning help. Dr. Penney delayed his decision to seek assistance. Dr. Penney was aware that every second counted. By the time Drs. Healey and O'Neill arrived, it is likely that serious brain damage had already occurred. Dr. O'Neill could have provided valuable assistance especially with respect to uterine relaxation before and during the maneuvres to free the fetus.

(s) Dr. Penney applied too much traction to the baby's head.

(t) I do not disagree with the argument of counsel for the Defendants that "standards of care are not set by medical literature". I would qualify it by adding the word "alone" at the end of that phrase. The expert testimony led on behalf of the Defendants, in my opinion, placed an unreasonably low ceiling on the duty of a physician to keep abreast of ongoing developments in medicine. In my opinion, when a physician devotes a substantial part of his/her professional practice to a particular area of medicine, he/she must keep up with developments or, at least, attempt to do so in a selective fashion. In my opinion, Dr. Penney failed to do so. In any event, and as aforesaid, I conclude that information concerning GDM and its risks had been diseminated to practicing family physicians in Ontario. Indeed, Dr. Penney himself was aware of the concept and risks. If he was only aware of "some rumblings", surely he should have sought assistance from an expert.

262 The harm that occurred to Mrs. Crawford and Melissa was reasonably foreseeable by the physicians. The harm was the reasonable consequence of their acts and failures to act.

CONCLUSION

263 In my opinion, the negligence which I have detailed above, and earlier in these Reasons for Judgment, constitute departures from the applicable standard of care and materially caused or contributed to the injuries and loss suffered by Melissa, Jeanette and Barry Crawford. I find that the same result is reached using the "but for" approach. But for the tortious conduct of the Defendants, Melissa would not have sustained the injuries from which she currently suffers. I cannot, and do not, accept the Defendants' submissions that the outcome of Mrs. Crawford's pregnancy was unforeseeable and unavoidable. The fact that there may not be a direct link between pre-eclampsia and shoulder dystocia does not provide a defence to the Defendants. The failure to take appropriate steps to deal with the pre-eclampsia constitutes a contributing factor to the other breaches of the standard of care that led to the causation of the injuries. As aforesaid, there is a link between pre-eclampsia and GDM. Dr. Farine put it this way:

> The pre-eclampsia, per se, the condition of the disease itself, is irrelevant, but the management of the disease was relevant to the outcome.

264 Accordingly, I find Drs. Penney and Healey liable for the damages suffered by the Plaintiffs.

DAMAGES

Required Care and Loss of Enjoyment of Life

265 Melissa, obviously, has suffered catastrophic injuries. She requires, as Mrs. Crawford and others have put it, "total care".

266 Mr. and Mrs. Crawford are absolutely devoted to Melissa and her care. Maureen and Ken

Crawford have agreed to help with Melissa's care when their parents are no longer capable of doing so.

267 After leaving CHEO, Melissa commenced to reside with her parents at the family home. Mr. and Mrs. Crawford "did everything for her". Mr. Crawford testified that Melissa had to be watched closely since she was always congested. Accordingly, she and Mr. Crawford arranged their outside work schedules so that they would be available to Melissa at all times. In the early stages of Melissa's life, Mr. and Mrs. Crawford had assistance from a home care worker for approximately eight hours per day plus a physiotherapist. These arrangements lasted until they were able to enrol her in a daycare program. Melissa receives physiotherapy in Ottawa and through her school program and, as well, she receives physiotherapy at home. Melissa participated in an infant development program until age five when she began to attend the regular school system.

268 Mr. and Mrs. Crawford received training with respect to the provision of care to Melissa. This included ways in which to stimulate her and the manner in which she should be moved.

269 From the outset she was able to see, hear and respond to sounds. However, she was, and is, prone to respiratory infections. Initially she was fed puré foods.

270 Early in life, she learned to roll from her stomach onto her back. However she did not, and does not, have good head control although for the first few years of her life she was able to sit in a wheelchair with the help of an insert. She could not, and still cannot, grasp things with both hands. According to Mrs. Crawford, in the early stages of her life, Melissa would become excited at feeding time and "smiled a lot". She loves music and stories and certain TV programs. While she is not able to speak words as such, she does make sounds. She was, and remains, incontinent of both bowel and bladder and, therefore, requires diaper changes - approximately six to eight times per day.

271 She presently communicates with eye gaze and by kicking her left foot and leg in addition to a picture book she has used for approximately ten years. The book was put together for her by her parents with the help of the Ottawa Treatment Centre. This book is broken up into various subject matters such as people, places, activities, phrases, toys, etc. Melissa indicates her choice by touching a happy face patch sewn into the cover of her hospital gurney or she touches the book.

272 Melissa began to develop additional difficulties in 1994. She had three successive bouts with phenomena and became quite ill causing her to be hospitalized for a few months. She was no longer able to breathe in a sitting position and has been prone since that time. She no longer uses a wheelchair. Melissa spends the majority of her time on a moveable hospital bed. She prefers a prone or semi-prone position because if she tries to sit up, she has extreme symptomatology - i.e. she becomes pale and her pulse rate increases among other things. She has abnormal movement patterns involving arching of her back and neck and facial grimaces. She has a fairly good range of movement in her upper arms but a very significant hamstring flexion contracture in her left leg which is painful. These problems resulted in the insertion of a G-tube in her stomach. Her feeding

now consists of four cans of Neutrasource per day - a liquid formula. Someone must attach Melissa to a feeding pump in order to accomplish the feeding. The feeding process consumes about an hour each time she is fed.

273 Melissa began having seizures when she was six or seven years old; however, these are now, for the most part, controlled.

274 Melissa now spends most of her time on a rolling hospital bed or gurney (transporter) and she is now able to roll from her back to her front and vice versa. Various traction and lifting devices have been installed in the Crawford home for the purpose of moving and lifting her. Melissa will remain in the public school system until she is twenty-one years of age.

275 Her average day was described as follows - Mrs. Crawford awakes Melissa at 5:30 a.m. at which time she administers her medications by means of the G-tube. Mrs. Crawford also, at that time, washes, dresses and feeds Melissa. The school bus arrives at approximately 7:50 with a nurse who remains with Melissa until her return from school at approximately 2:10 p.m. At school the nurse changes her, administers her medication, feeds her and generally looks after her needs. At 4:00 p.m., after playing with her, the parents again administer her medications and feed her. After being fed, there is more play, her parents read to her, and she watches T.V. which, of course, she does at other times during the day. Prior to being put to bed, Melissa is again bathed. At night her bedroom door is left open and a monitor is used. Melissa cannot be left alone at night without some sort of monitoring system in place because of the risk of a secretion build up and her choking on it.

276 During the day Melissa must be suctioned with a suction machine because she tends to accumulate mucus. Her parents also, at various times, help Melissa with a mask for her asthma treatments.

277 On weekends, Melissa goes shopping with her parents. On Saturday morning, a woman visits the family home for about four hours in order to give the parents a brief break. The government absorbs the cost attributable to this service.

278 Mrs. Crawford estimated that on weekdays she and Mr. Crawford spend ten hours actually caring for Melissa and that on each weekend day they spend approximately fifteen hours each day administering to her needs. This has been the case for almost nineteen years. Their preference is to have a registered nurse present on a twenty-four hour basis. They refuse to place Melissa in a group home because, in their view, she will not receive appropriate care, even at the best establishment. I find that their decision is a reasonable one made in Melissa's best interests.

279 Mr. Crawford works from 9:00 p.m. to 6:00 a.m. at his janitorial position. As aforesaid, Mrs. Crawford took early retirement in April of 1995 following a year of compassionate leave from her employment. Her decision was reached as a consequence of Melissa's need for constant care which increased as a result of her feeding demands.

280 Melissa's cognitive function, or mental ability, is limited. Measuring her cognitive ability is difficult. She functions at a primary level. She can add and subtract single digit numbers and can add and subtract two digit numbers up to twenty with a ninety percent accuracy rate. Melissa is able to track sequencing of numbers and sizes and can make choices using her picture book. She is able to respond in the affirmative as aforesaid by kicking her left leg, or by touching a small target. She can choose between two items. She can, if she is close enough, switch a tape recorder and radio on and off. She cries when in pain and laughs when she is happy. Melissa is described as being sociable, friendly and approachable with a strong desire to interact and join activities. Just prior to the commencement of the trial of this action Melissa was taken to CHEO and placed in intensive care. She was diagnosed with phenomena.

The Calculation of Damages

281 Many of the various heads of damage have been calculated by the Plaintiff based on various assumptions such as life expectancy, estimated earnings, estimated working life, cost of attendant care, as well as other estimates or assumptions including the effective dates upon which the calculations were or should be made. I have accepted some, but not all, of these assumptions. I have not attempted to recalculate the claims. I leave the arithmetic/calculations to be worked out by counsel. In the event that I have failed to make any necessary findings or in the event that counsel are unable to reach agreement on any item or items, I will resolve the dispute(s) through written and/or oral argument if necessary. Unless otherwise indicated, the effective date of the calculations should be the date upon which these Reasons for Judgment are released. The discount rate set out in Rule 53.09 shall apply to the calculation of future care damages.

Non-Pecuniary Losses/Damages

282 The 1978 Supreme Court of Canada trilogy cases apply. With appropriate adjustments for inflation, the 1978 cap of $100,000.00, at the present time, is somewhere in the range of $280,000.00. I award the maximum amount, the calculation of which, as aforesaid, I leave to the parties.

283 Melissa's injuries can clearly be described as catastrophic. I am not prepared to reduce the maximum allowable on the basis of the "useful purposes" approach suggested by the Defendants. The Defendants argue that, given the length of time since the cause of action arose (December 1983) and the time since written notice of a claim was served (in 1994), there exists a real risk of double recovery should Melissa receive both an award of general damages adjusted to account for inflation while at the same time submitting a claim for pre-judgment interest dating back to 1983. The Plaintiffs submit that there is binding precedent contrary to this rationale - i.e. Koukounakis et al. v. Stainrod et al. (1995), 23 O.R. (3d) 299 (Ont. C.C.A.). I agree with the Plaintiffs' position on this issue - i.e. the fact of inflation should not deprive a plaintiff from his/her prima facie right to receive pre-judgment interest at the appropriate rate.

Pecuniary Damages

284 My task is to award the Plaintiffs an amount, or amounts, of damages that will restore them, insofar as it is possible to do so, to the position they would have occupied had the disaster not occurred. This includes, among other things, amounts for the provision of adequate future care and an award for lost future earning capacity without regard to future taxation.

Life Expectancy

285 The parties are at significant variance concerning Melissa's life expectancy. It seems clear, however, that Melissa's life expectancy is very much dependant upon the nature of the care, which she will receive. Dr. Berbrayer, a specialist in rehabilitation medicine/psychiatry, who was called to testify on behalf of the Plaintiffs, estimated Melissa's life expectancy at forty to forty-five years from the end of March 2001 - i.e. he estimated a total life span of approximately fifty-seven years to sixty-two years. He explained in his testimony that the most common causes of death in cerebral palsy victims are respiratory compromise such as pneumonia, sustained seizures, major pressure sores leading to secondary infection, untreated bladder infections and undetected cardiac arrhythmia. Dr. Berbrayer said that there is no significant risk to Melissa with respect to seizures, sores, bladder infections or arrhythmia. According to Dr. Berbrayer, Melissa requires a twenty-four hour level of care - i.e. she is totally dependent in all areas of care. Dr. Berbrayer made his estimate prior to Melissa's hospitalization in 2001. However, after reviewing the hospital records with respect to that incident, he did not change his estimate. In arriving at his estimate of life expectancy, he stressed that each cerebral palsy victim has his/her own uniqueness. In my opinion, his estimate is high because he, to an extent, in my view, over-estimated Melissa's intellectual abilities and the impact they have on the conclusion.

286 Dr. Duane L. MacGregor testified for the Defendants. She is a pediatric neurologist who works with cerebral palsy victims and, like Dr. Berbrayer, is well qualified to provide the court with opinion evidence on life expectancy. She puts more emphasis on the significance of the Spring 2001 hospitalization than does Dr. Berbrayer particularly with respect to Melissa's breathing symptoms and the tightening of Melissa's left leg. She also places more emphasis than does Dr. Berbrayer on Melissa's intellectual development, her inability to communicate and her restrictions in ability to move. Her estimate is twenty-five years beyond age fifteen - i.e. a forty-year life span even assuming twenty-four hour per day professional care. Her estimate emphasizes two factors - the tube feeding and Melissa's inability to move to any significant extent. In her testimony, she said that the most likely cause of premature death would be respiratory complications - i.e. pneumonia.

287 The Plaintiffs rely, as well, on the evidence of Dr. Paul Kordish, a certified specialist in insurance medicine, who is also well qualified to provide opinion evidence on this subject. His opinion was that Melissa's life expectancy is approximately forty years from September 21, 2001, the date on which he testified. Therefore, his estimate is similar to that of Dr. Berbrayer. According to Dr. Kordish, the biggest risk of premature death is infection complications especially concerning the respiratory system. Other risks are urinary track complications, skin complications, epilepsy and seizure disorders, all of which risks decrease if Melissa receives one on one care. He recognized

that there were risks from the fact that Melissa suffers from a lack of mobility and receives her nourishment through tube feeding. He was quite critical of the California studies employed by Dr. MacGregor in reaching her opinion. In Dr. Kordish's view, the California studies do not properly focus on Melissa's favourable peculiarities. Dr. Kordish was frank in admitting to the court that neither he nor anybody knows the "right answer". All of the experts agreed that, as a result of her disabilities, Melissa has a reduced life expectancy compared to the norm.

288 I prefer the evidence of the experts called by the Plaintiff since their opinions, in my view, are focused more directly on Melissa's peculiar circumstances. However, I find that their opinions are somewhat optimistic. Accordingly, I find that Melissa's life expectancy is thirty-five years from her upcoming birthday. Therefore, for the purposes of this decision, she will have a life span of fifty-four years.

Melissa's Future Loss of Income/Lost Years

289 The evidence shows that Melissa will not ever become gainfully employed and therefore, she has a total loss of earning capacity. As was noted by the Court of Appeal in Graham v. Rourke (1990), 75 O.R. (2d) 622 (Ont. C.A.), the task of assessing future pecuniary loss is "a somewhat speculative exercise".

290 In Toneguzzo-Norvell v. Burnaby Hospital (1994), 110 D.L.R. (4th) 289, the Supreme Court of Canada held that for the period between the courts determination of the Plaintiff's life expectancy and the determination of the age of retirement, the calculation of loss of income requires a sum to be deducted representing personal living expenses of the Plaintiff during that period of time - i.e. the lost years. The Supreme Court upheld a fifty percent deduction in that case. This, of course, differs from the preceding period of Melissa's life when her gross income loss forms the basis of a present value calculation without deduction.

291 The court heard from Professor Jack Carr and from Professor James Pesando. Both of these gentlemen testified before Zuber J. in Dube v. Denlon (1994), 21 C.C.L.T. (2d) 268. Zuber J. concluded that an appropriate deduction was one-third for the lost years. I note that Philp J. in Kenyeres (Litigation Guardian of) v. Cullimore, [1992] O.J. No. 540 applied a ten percent rate. Other precedents have applied deductions of higher percentages or amounts.

292 The court does not have the advantage of considering any evidence of pre-accident earnings or the level of ability or intelligence of Melissa to assist in determining what level of education she might have attained or what amount of income she would have earned. Accordingly, I must, in order to reach a reasonable decision, consider the earning capacity and intelligence of her parents and siblings.

293 Dr. Carr's opinion was that it is reasonable to assume that Melissa's loss would be an income equal to the average earnings of all employed females who work full time on a full year basis. I agree that, in this case, that is a reasonable assumption and I adopt it. I also agree with Dr. Carr that

it is more reasonable to look to Ontario statistics than to Canada wide numbers as did Professor Pesando. In my opinion, Professor Pesando's approach (he utilizes statistics for all females in Ontario who participate in the labour force in any capacity) does not focus enough on the Crawford family history which is one of academic success as well as full time and long term employment.

294 Professor Carr's opinion was that in order to calculate the future income loss, the appropriate annual income, in 1999 dollars, was $39,543 inclusive of a factor of 14.2 percent of gross annual payroll for fringe benefits. Assuming, for the minute, that this is the correct figure, I would round it off to $41,000 to adjust for the almost three years that have elapsed since the date of his report, December 6, 1999.

295 I note that the experts for both parties agree that in calculating the loss of future earnings, the proper reference point is that of a community college graduate. I note, as well, that the experts agree that Melissa would have commenced her employment at age twenty.

296 However, I accept Dr. Pesando's testimony that the Plaintiffs' numbers do not fully take into account two important contingencies - i.e. the fact that a female worker will, indeed, experience some unemployment due to illness, child care, financial set-backs, periods of low employment, and other causes and will probably become involved in some part time employment during the course of her working life. He urges a reduction of thirty-two percent for these contingencies. In my opinion, it is reasonable to take these contingencies into account, but not to the extent of thirty-two percent. Consideration must be given to Melissa's family's work ethic, employment insurance and other benefits payable to employees while not at work. I used the family's work ethic as a reference point even though there does not appear to be a definitive study which establishes that, if parents have a strong work ethic, it is reasonable to assume that we can ignore or play down this contingency of non-participation for the adult child. I believe that it is reasonable to make such an assumption and that it is more reasonable to make the assumption than not to make it.

297 I would, and do, apply a contingency of ten percent. In making this adjustment I am aware that, to some extent, this contingency is already built into the statistics and that there are positive adjustments that come into play. Therefore, the adjusted annual income figure is ninety percent of $41,000, or $36,900.

298 I accept Professor Carr's rationale regarding why it is appropriate to make an allowance for investment management fees which he has done (i.e. 1/8 of 1%). There will be a large sum of money to invest. Melissa and her family will need professional advice regarding her investment portfolio in order to provide a satisfactory flow of income that will meet her future needs over her lifetime. Her manager will not have the luxury of taking even modest risks to earn a high rate of return and, therefore, there is no compelling reason to conclude that the rate of return on investments will cover the cost of a manager or, put another way, that a fee will be self-financing.

299 I find that it would be reasonable to assume that Melissa would have retired at age sixty. Therefore there are six "lost years" (i.e. 60 years minus fifty-four projected years of Melissa's

lifespan). I assess a thirty percent deduction for these lost years. As aforesaid, the parties can calculate this claim based on my findings.

Cost of Future Care

300 Melissa is entitled to an award of damages in an amount that will provide adequate reasonable care for the rest of her life - i.e. a fund from which may be drawn annually the necessary sum for care and attention must be established. "There can be no excuse for foisting on the public the burden of caring for the Plaintiff (Melissa) or supplying her with necessities of life" (see Arnold v. Teno, [1978] 2 S.C.R. 287 at 333 (S.C.C.)).

301 In assessing these damages I have borne in mind the words of Dickson J., as he then was, in Lindal v. Lindal, [1981] 2 S.C.R. 629 635 (S.C.C.), where he states:

> The amount of the award under these heads of damages (future care expenses and loss of future income) should not be influenced by the depth of the Defendants' pocket or by sympathy for the position of either party.

302 I have considered and applied the comments of McLachlin C.J. in Krangle (Guardian Ad Letern of) v. Bresco (2002), 208 D.L.R. (4th) 193, [2002] 3 W.W.R, 45, [2002] S.C.J. No. 8 (QL), i.e. "The reasonable or normal expectations" of what Melissa will require.

303 Counsel for the Plaintiffs correctly notes in their written submissions that there was much agreement between the experts for each party, Mr. Pearce and Ms. Binstock. The areas of agreement and disagreement are set forth in Exhibit 202. The principle area of dispute relates to the type of attendant care that is reasonably required. The Defendants do not dispute that she requires constant care or that she may never be independent in any areas of care.

Nursing Care

304 The fact is that, because of the nature of her injuries, her safety is at constant risk. Reasonable precautions must be taken to protect her. Someone must be available to her at all times and it would be unreasonable to impose obligations of this nature on her parents or siblings. While I have no doubt whatsoever that her family will continue to participate in Melissa's care and provide companionship to her, Melissa is, nevertheless, entitled to twenty-four hour care/supervision from others. Someone must be available to provide assistance in routine situations and in emergency situations. The position of the Plaintiff is that Melissa's care should be provided by a registered nurse (RN) because of the unpredictable nature of the required full time care - i.e. someone qualified to make a decision concerning what care is appropriate and someone with the ability to administer that care. Dr. David Berbrayer (physical and rehabilitation medicine) also testified on behalf of the Plaintiff. He was of the opinion that an RN would be necessary during the daytime but that, at night, a registered practical nurse would be required. The Plaintiffs also called Jim King, a registered nurse employed by ParaMed to testify on their behalf and his conclusion was that the

level of required care was that of an RN. Mrs. Crawford testified that the care should be provided by an RN. Dr. Karen Smith (physical and rehabilitation medicine) testified on behalf of the Defendants. Her proposal is that Melissa's parents should provide eight hours of care per day, a further eight hours would be provided by a personal service worker (PSW) and the remaining eight hours would be provided by a registered practical nurse (RPN). In my view, this is not good enough. First of all, as aforesaid, there is no legal basis upon which to impose this burden on Melissa's parents, even though that they have and probably will continue to provide whatever care and comfort they are able to give her. Secondly, given Melissa's physical problems, the caregiver must, at least, possess the qualifications of an RPN registered practical nurse.

305 In their written reply submissions, the Plaintiffs stated, "It is submitted that an appropriate compromise in this case is the provision of 24 hour care by an RPN." I accept this as a reasonable and appropriate basis for the award of damages for the cost of future care and I so order. The present hourly rate to be used in the calculation of the damages should be $29.50 per hour.

306 The Defendants argue that the claim for future home care costs assumes constant care for the remainder of Melissa's life. They rely on McErlean v. Sorel (1987), 42 C.C.L.T. 78, where the Ontario Court of Appeal pointed out other possibilities such as intermittent hospital care, staffing problems, lack of guardianship after parents' death and said that these contingencies must be considered. The Court of Appeal reduced the assessment from $2.04 million dollars to $1.75 million dollars - i.e. a fifteen percent contingency was applied. In this case, the evidence has shown that the hospitalization of Melissa has been an infrequent event and, as aforesaid, there is evidence that her siblings plan to look after her when her parents are no longer able to do so. Therefore, while I accept that a deduction should be made for this contingency, it should be a minor one. I fix the contingency at five percent. This deduction should be applied to the claims for nursing care and for the annual costs for medication and supplies; equipment; professional services; education/vocational integration; and leisure/day programming. These particular claim headings are assessed later in these reasons.

307 No damages should be payable on a calculation of GST on the costs of services of the RPN - there is none. The future care costs should be assumed to commence on the first day of the month following the release of these reasons.

Housing

308 There are no group homes that can accommodate Melissa's needs at this time. In the trilogy decisions, the Supreme Court of Canada indicated a strong predisposition for home rather than institutional care for a severely disabled plaintiff. Mr. and Mrs. Crawford wish to move to Kingston but have been unable to do so because of financial reasons. They believe that there would be more resources for Melissa in Kingston thus avoiding the necessity of having to travel to Ottawa from their present home location. In addition, a move to Kingston would put them closer to their children and grandchildren. The Plaintiffs rely on the evidence of Mr. Jeff Baum. He testified that the cost of

purchasing a lot and constructing a home suitable for Melissa's needs in the Kingston area would be in the range of $360,400 to $362,500. They seek an award of damages accordingly. Ms. Kathy Pringle testified on behalf of the Defendants. Her evidence was that Melissa's reasonable needs can be met by renovating the existing family home. In addition, she questioned the reasonableness of some of the suggestions factored into the estimates of Mr. Baum - for instance automatic operators for the house doors, a paved surface entrance to facilitate the movement of the transporter, the suggested dimensions of the doors and other openings, the private laundry facilities, separate living quarters and kitchenette for her attendant, a seven foot turning circle for the transporter, the size of the proposed living room, and the necessity for a new overhead lift. Many of these points have merit as does the Plaintiffs' argument that Melissa's needs can be met through renovations to the existing house outside Smiths Falls. The Defendants should not have to bear the expenses accompanied with a move to Kingston. Ms. Pringle's renovation plan is set out in Exhibit 234. She obtained in 1995 a cost estimate in the amount of $110,263 inclusive of GST and consulting fees. She estimated that this amount would have increased by ten percent from 1999 to 2001 by $11,026. Therefore, the Defendants' position is that the award, in 2001 dollars, should not exceed $121,289. I assess the damages for the necessary and reasonable alterations to the home at $175,000.

The Additional Pecuniary Claims Detailed in Exhibit 212

309 Exhibit 212 is a schedule prepared on behalf of the defendants which sets out, on an item-by-item basis, various claims for damages together with the amount claimed and the defendants' position with respect to the individual claims. The following is a summation of my findings/awards on an item by item basis. For convenience, I will employ the same paragraph numbers as employed by the defendants. Where applicable, the amounts set out below should be reduced by the five per cent contingency factor - i.e. nursing care, etc.

4.1	ATTENDANT CARE - see my foregoing reasons under the heading "Nursing Care"
4.2	HOUSING - see my reasons under "Housing"
4.3	HOUSEHOLD MANAGEMENT - I assess the annual costs of general cleaning at $3,120.00 and of seasonal cleaning at $218.28.
4.4	TRANSPORTATION - I accept the evidence led through M. Binstock that a new and better van is needed and I assess the cost of purchasing such a van at $45,500.00. I assess the annual replacement cost at $3,500.00 and I assess the claim for vehicle modification at $4,107.14. I assess the yearly maintenance of lift costs at $214.00, the yearly extra-ordinary insurance cost at $565.95 and the emergency road side assistance cost at $38.98 following the expiration of the dealer roadside assistance plan. I assess the cost of a cellular phone at

$100.00 and the cost of the yearly service at $120.00.

4.5 MEDICATION AND SUPPLIES - I assess the annual cost of incontinence diapers at $1,950.00. I have arrived at this amount by taking into consideration a reduction of fifty percent of the contribution presently being received from the Assistive Devices Program. The continuation of these contributions is uncertain. I have read and considered the decision of Zuber J. in Stein (Litigation Guardian of) v. Sandwich West (Township), [1993] O.J. No. 1772 where he held that an award for future care should not be diminished based on the uncertain expectation of government help. I have decided that it is reasonable to evenly divide this contingency between the parties. Therefore, where ADP comes into play, I have deducted fifty percent of the contribution from the claim submitted by the Plaintiffs.

For gloves, baby wipes, peri-care cream, I award an annual cost of $128.40, $191.76, and $64.08 respectively. I disallow the claim for peri-wash.

I award the following damages for the below listed items:

Feeding & G-Tube Supplies

Item	Annual Cost
Kangaroo feeding pump	$180.00
Kangaroo Enteral feeding container	$500.00
Secur-Lok Extension set for Mic-Key	$700.00
Mic-Key	$700.00
Sponges	$42.00

Gauze $50.00

Nutrisource $1,500.00

The claim is in the amount of $2,974.75; however, I have reduced the claim to take into consideration the cost for normal food expenses and assess the claim at $1,500.00 on an annual basis.

Cranberry juice $0.00

Liquid Disinfectant $14.37

Syringes $126.40

Calcium Ascorate powder $112.80

Acidophilus, Lactobacillus and Bifidus $33.47

Barley juice powder $0.00

Multivitamins $0.00

Distilled water $239.20

Medications

Depakene	$541.70
Domperidone	$346.75
Biaxin	$498.89
Lorazepam	$17.73
Salbutamol Nebules	$27.79
Zantac Oral	$924.31
Tea Tree Oil	$158.04
Cipro	$123.74
Ipratropium	$1,872.45
Singular Tablets	$244.55

4.6 EQUIPMENT - I award the following amounts:

Batteries for lift	$70.00
Maintenance of lift	$120.00

Supine Transporter $954.00

Tilt Handle Assembly $95.00

Supine Transporter Basic Mattress & Cover $50.00

Pressure Relief Mattress for Supine Transporter $172.00

Standard Harness for Supine Transporter $80.00

Side rail padding $60.00

For ADL (activities for daily living) Equipment I award the following amounts:

Hospital Bed $160.00

Replacement of electrical parts of bed $100.00

Hospital side rails $32.88

Side rail pads $47.50

Extra clothing allowance $800.00

Custom cover for mattress on Supine Transporter $20.00

Extra Linen (bed and towels) Allowance $200.00

Act 530 mls $34.50

I award $70.00 as the annual cost of an exercise mat and I award an annual cost of $500.00 with respect to the claim for computer and software.

Under the general heading of Respiratory Management I award the following amounts:

Suctioning unit $210.00

Lunen Argyle $38.52

Suctioning catheters $26.00

DuraNeb 3000, Air Compressor, Internal Battery $200.00

Pan Nebulizer and tubing $48.00

Oxygen Mask and tubing $130.00

Oxygen $50.00

Cool Mist Humidifier $26.41

I disallow the claims under the heading of "Miscellaneous" - i.e. the claims for:

Two drawer lateral filing cabinet

Computer/office desk for attendant

Office seat

Under the general heading of "Professional Services" I disallow the claim for Medical Services. I award an annual cost of $400.00 for a dentist. On the assumption that OHIP will pay for a physiotherapist and an occupational therapist, I disallow these claims as they are included in the award for future OHIP costs. I disallow the claim for the neuropsychologist. For family counseling I award a one-time cost of $14,400.00. I disallow the claim for a case manager and for a computer specialist.

Under the heading of "Educational/Vocational Integration" I award the following amounts:

Intellikeys system $0.00

Intellikeys switches	$0.00
Loop tapes	$28.75
Tape recorder, REM jack, Ablenet switch (based on 4 years)	$38.53
CD - stories	$172.50
Educational software	$172.50
Computer for education needs in classroom	$0.00
Hoyer lift	$167.50
Stretcher Base for Hoyer Lift	$682.33
Gax Cylinder/Seals for Hoyer Lift	$18.40
Adaptive Educational Equipment	$0.00

4.10 Leisure/Day Programming For Easter Seals Camp/or similar camp I award an annual cost of $1,020.00 for two years. I disallow the claim for the attendant for overnight camp. I award $1,794.00 as the annual cost of travel/entrance expenses for attendant. I disallow the claims for vacation costs for attendant, day

programming, and DSW (Developmental Service Worker) consultation.

Family Law Act Claims

310 As aforesaid, Jeanette and Barry Crawford have devoted themselves to Melissa's care and comfort since her birth. They have made personal and financial sacrifices. In addition, because of the severity of Melissa's injuries, they have lost the guidance, care and companionship that they might reasonably have expected to receive from Melissa if the injury had not occurred (see Section 61(2)(e) Family Law Act of Ontario, R.S.O. 1990, c. F.3 as am.). No doubt, Mr. and Mrs. Crawford have been motivated by their love for their child and no doubt they have received many positive benefits from their nurturing of Melissa. However, these latter indirect benefits are secondary and cannot replace the care, guidance and companionship they would have received had Melissa not been so severely injured. The evidence demonstrates clearly that the Crawford family is a close knit one. They are entitled to an award at the high end of the accepted range of guidance, care and companionship. I fix Mr. and Mrs. Crawford's Section 61(2)(e) damages at $80,000 each.

311 Section 61 of the Family Law Act allows for a claim by Melissa's parents for the recovery of their pecuniary loss resulting from the injuries. Pursuant to Section 61(2)(a) they may recover actual expenses reasonably incurred for Melissa's benefits and under subsection (d) they may recover damages "where, as a result of the injury, the claimant provides nursing, housekeeping or other services for the person, a reasonable allowance for loss of income or the value of the services".

312 The claim for out-of-pocket expenses is detailed in Exhibit 17. The claim is in the amount of $56,385.27. The Defendants made no representations concerning these. The claims are reasonable and I allow them.

313 Mrs. Crawford has made a claim for loss of income attributable to her early retirement. The Plaintiffs submit that the court should assume that, had it not been for Melissa's special needs and the down turn of her health in 1994, Mrs. Crawford would have continued to work for at least five more years. I accept this as a reasonable and probably assumption. There is no evidence before the court that she would have accepted an early retirement package under other circumstances. Indeed, there is evidence to suggest that, given the combined incomes of Mr. and Mrs. Crawford, she would probably have continued to work beyond her early retirement date. Mrs. Crawford's decision to take a leave of absence and then retire early were direct consequences of Melissa's injuries and her need for more careful and constant attention.

314 The Plaintiffs' claim is based on an assumption that Mrs. Crawford would have worked to April 30, 2000. This is a reasonable assumption. Her loss of income to that date has been calculated at $66,400. The Plaintiffs calculate the diminution in her pension benefits to the same date at $19,900. The present value of the loss of pension benefits to age sixty-five has been calculated at $17,138 and for the period following age sixty-five, at $19,179 for a total of $36,300. These are reasonable claims.

315 However, an additional claim is made for "services provided". The Plaintiffs estimate that on an average weekday, Mr. and Mrs. Crawford devoted and devote ten hours to look after Melissa's extraordinary needs. They estimate that on the weekends, they spend fifteen hours per day. They calculate their claim by assuming an average sum of $10.00 per hour for the extraordinary time required to provide the services Melissa needs and needed over the past eighteen-nineteen years. They calculate their claim as follows.

261 weekdays @ 10 hours per day = 2,610 hours x $10.00 an hour = $26,100.

104 weekdays @ 15 hours per day = 1,560 hours x $10.00 an hour = $15,600.

Total per year $41,700.

316 They then multiplied this amount by 18 years and arrived at a figure of $750,600. They round off their claim to $750,000.

317 I observed that if it were not for Melissa's injuries, there would have been a substantial expenditure of time on behalf of both parents devoted to Melissa's care and nourishment during her infancy, her early years and through her teen years. The services for which a claim is made, obviously, must be those services that relate only to the injuries. As aforesaid, the claim under this heading is $750,000. I reduce this claim by fifty percent and award $375,000. Therefore, under subsection (d) of Section 61 these damages are awarded to Mr. and Mrs. Crawford jointly and I disallow the claim for the loss of income because the Act compels me to award damages for only one of these claims rather than both.

OHIP

318 On October 27, 2001 the parties filed with the court a document entitled "Stipulation Re: OHIP Claim". In this stipulation the Defendants agreed as follows with respect to the quantum of OHIP's subrogated claim in the event that liability is found by this court against them. The stipulation reads as follows:

1. The sum of $448,094.01, claimed in the documents filed with this Court as Exhibit 18 herein, represents OHIP's recoverable costs to September 18, 2001;
2. The sum representing OHIP's recoverable future costs is that sum equal to the present value, at the time of any finding of liability, of the annual projected costs for medical and hospital services, set out below, subject to this Court's determination of Melissa Crawford's remaining life expectancy:

a. $1,724.83 annually for medical services;
b. $1,769.00 annually for hospital services.

319 If any costs have been incurred subsequent to September 18, 2001, the claim should be increased accordingly. As mentioned earlier in these reasons, the parties can calculate the claim for future costs in accordance with my findings concerning Melissa's life expectancy.

Pre-Judgment Interest

320 The calculation of pre-judgment interest should be made pursuant to Sections 127 to 130 of the Courts of Justice Act and Rule 53.10 of the Rules of Civil Procedure. I find that the date upon which notice of a claim was delivered in this matter is October 1994. The "date of the order" shall be the date on which these reasons are released. The Plaintiffs are entitled to pre-judgment interest in accordance with these sections based on my findings concerning dates.

COSTS

321 Costs are reserved pending completion of the necessary calculations of damages and my determination of any problems arising therefrom. Upon completion of the necessary calculations and disposition of any matters which I have neglected to deal with, I will invite the parties to make brief written submissions with respect to costs which should be restricted to liability for costs and the appropriate scale of costs. Unless I can be persuaded to the contrary by one or more of the parties, it is my intention to refer the assessment of the costs to an Assessment Officer.

POWER J.

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Corrigendum
Released: January 27, 2003

It has been brought to our attention that the word "tortuous" in paragraph 263 of page 95 of Justice Power's reasons dated January 15, 2003 is in error and that it should be "tortious".

cp/e/nc/qw/qlhcc/qlmjb/qlkjg