

Court of Queen's Bench of Alberta

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2010 ABQB 734 (CanLII)

Between:

Ireneusz Eric Malinowski

Plaintiff

- and -

**Murray Schneider and Murray Schneider carrying on business
under the firm name and style of Fort Chiropractic Centre**

Defendants

**Reasons for Judgment
of the
Honourable Madam Justice D.L. Shelley**

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I. BACKGROUND

[1] Mr. Malinowski was born in Poland in September of 1972. He completed grade eight and had begun attending a technical school for mechanics. Approximately six months later, he moved to Germany. There he attended a technical school for electricians for approximately four months, picked grapes in a vineyard and pulled aluminum off vehicles in a scrap yard for a short period of time before immigrating to Edmonton at the age of 16. On arrival in Canada, he briefly attended Louis St. Laurent High School to take English as a second language. From then on, he worked at various jobs during the summer as well as part-time while taking various classes at St. Joseph’s High School between September 1989 and September 1992. He did not graduate from high school. Further particulars of his background and work experience will be detailed later in this judgment and therefore will not be repeated here.

[2] On February 25, 2002, Mr. Malinowski was working as an apprentice electrician for Tracer Field Services Canada at the Shell Upgrader project near Fort Saskatchewan. He was injured while pulling very heavy electrical cable. He was assisted to the on-site medical trailer

where he remained for the rest of his shift that day. He required assistance to take the bus back to his residence, as well as the assistance of his father to get to his bed once he arrived there.

[3] The next day, Mr. Malinowski returned to the workplace but was unable to return to his duties. After spending some period of time in the on-site medical trailer, he was taken by two safety workers to Dr. Schneider's chiropractic clinic in Fort Saskatchewan. Dr. Schneider examined, diagnosed and treated Mr. Malinowski during that visit. The next day, Mr. Malinowski had a second appointment with Dr. Schneider at the on-site medical trailer at the Upgrader site. Details of those visits will be outlined later in this judgment.

[4] Late on February 27, Mr. Malinowski visited his family physician, Dr. Sawicki. The following morning, Mr. Malinowski remained in bed all day taking painkillers. When he woke on March 1 he had numbness in his saddle area and could not feel his legs. He called 911 and was taken by ambulance on a stretcher from his bed to the Misericordia Hospital. His symptoms progressed while at the Misericordia Hospital and eventually he was diagnosed with cauda equina syndrome ("CES"). Emergency surgery was performed by Dr. Broad, a neurosurgeon.

[5] Other than one brief period in which Mr. Malinowski attempted to work as a painting estimator, he has not worked since September 27, 2002.

[6] Dr. Schneider attended the Canadian Memorial Chiropractic College from the fall of 1984 until he graduated with academic honours in 1988. He passed the Canadian Chiropractic Education Board exams and then returned to Alberta in 1988. He passed the exams required by the College of Chiropractors of Alberta and has been practicing as a chiropractor in Alberta since that time. He has, throughout his years of practice, taken continuing education courses. In addition, in 1992, he became a fellow of the College of Chiropractic Rehabilitation Sciences Canada and, in 1994, a fellow of the College of Chiropractic Orthopedists (Canada). He also took graduate level training for advanced diagnostics and treatment procedures in relation to chiropractic orthopedics through the Royal Melbourne Institute of Technology University and the Southern California University of Health Sciences, culminating in his receipt in 2002 of a Master's Degree in Applied Science (with distinction) from the Royal Melbourne Institute of Technology University. Among other positions throughout his years in practice, Dr. Schneider was also a member of the consensus group committee involved in the development of the Glenerin Guidelines, a set of approved practices for Canadian chiropractors.

[7] Dr. Schneider first attended on Mr. Malinowski at his office in Fort Saskatchewan. The focus of his practice was occupational injuries as a result of referrals from personnel at the Shell Upgrader project. From approximately 2001, Dr. Schneider had established what he described as a somewhat formal relationship with the employers at the project. Injured workers would be sent in cabs from the job site to see him at his clinic on an almost daily basis. As time went on, he and the project's occupational health staff decided that it would better to treat injured employees at the Upgrader site because, in Dr. Schneider's words, "the transportation issues were getting ungainly, and the time these workers were spent (sic) off the site was beginning to affect their productivity issues". Therefore, he negotiated a contract under which he would see new patients

at his clinic for their first visit and thereafter he would treat them at the job site. It was through this process that Dr. Schneider came to be involved in Mr. Malinowski's care on February 26, 2002.

II. ISSUES

[8] At issue is whether Dr. Schneider is liable for negligence in his treatment of Mr. Malinowski and, if so, the amount of damages for which he is responsible. Sub-issues related to these main issues are set out and dealt with below.

A. Preliminary Issue - Expert Evidence - Areas of Expertise - Specialist's Testimony on Standard of Care of Non-Specialist

1. Dr. Kumar

[9] Dr. Schneider challenged Dr. Kumar's status to give an expert opinion on whether Dr. Schneider had met the standard of care when he diagnosed, advised, and treated Mr. Malinowski. Dr. Kumar identified a number of what he considered breaches of Dr. Schneider's standard of care:

1. Dr. Schneider incorrectly diagnosed Mr. Malinowski's injury as a sacroiliac joint sprain, despite having concluded that a lumbar disc injury was a possible diagnosis;
2. Dr. Schneider did not order bed rest, nor did he refer Mr. Malinowski for medical imaging to clarify the nature of his injury; instead he proceeded immediately to conduct a chiropractic adjustment; and
3. Dr. Schneider did not warn Mr. Malinowski of the symptoms of CES and the need for Mr. Malinowski to immediately seek medical attention if those symptoms appeared.

[10] Dr. Schneider argued that Dr. Kumar offered an opinion outside his area of expertise. Dr. Kumar is a neurosurgeon, while Dr. Schneider is a chiropractor. Courts recognize that an expert in a given subject cannot comment on the expertise of a second, different discipline.

[11] Chiropractic is described by Dr. Schneider as an independent, self-regulated profession, which has its own standards and procedures. Alberta courts have described the standard of care of a chiropractor as "the degree of care, diligence, judgment and skill which is exercised by a normal, prudent or reasonable chiropractor under like or similar circumstances and with the same experience and training": *Olsen v. Jones*, 2009 ABQB 371, 11 Alta. L.R. (5th) 203.

[12] For a medical professional, expert testimony should be from a medical expert in the same profession: *Gemoto v. Calgary Regional Health Authority (c.o.b. Alberta Children's Hospital)*, 2006 ABQB 740 at para. 315, 67 Alta. L.R. (4th) 226; *Nattrass v. Weber*, 2008 ABQB 259 at para. 182, 444 A.R. 303, reversed on other grounds 2010 ABCA 64, 316 D.L.R. (4th) 666. Since

Dr. Kumar cannot offer guidance on the standard of care on a different subject, Dr. Schneider submitted that his evidence was irrelevant and should be excluded as prejudicial. Dr. Schneider stressed that courts have been cautious and have excluded expert opinions that relate to the standard of care in relation to medical specialists. In *Alakoozi v. Hospital for Sick Children*, [2002] O.T.C. 817 at para. 73, 117 A.C.W.S. (3d) 828 (Ont. Sup. Ct. J.), affirmed 187 O.A.C. 187, 131 A.C.W.S. (3d) 762 (Ont. C.A.), the Court concluded that expert testimony from one medical specialist, a pediatric haematologist, did not assist when determining the standard of care for a different kind of medical specialist, a pediatric otolaryngologist.

[13] Mr. Malinowski argued that Dr. Kumar's evidence on diagnosis and treatment of back injuries relates to the standard of care of any medical professional. He argued that Dr. Kumar's opinion should not be excluded, though it might deserve less weight. There are other instances where a non-chiropractor medical expert has commented on the standard of care of a chiropractor (*Barber v. Wilson* (1996), 8 O.T.C. 350 at paras. 8-9, 64 A.C.W.S. (3d) 586 (Ont. Ct. J. (Gen. Div.)), and the appropriateness of chiropractic treatment on a particular patient (*Nobel v. Bergstrom*, 2001 BCSC 1135 at paras. 29-31), 107 A.C.W.S. (3d) 1001).

[14] I conclude that Dr. Kumar's evidence is admissible and relevant to Dr. Schneider's standard of care during diagnosis and treatment of Mr. Malinowski. Dr. Kumar's testimony relates to a general standard of care for diagnosis and treatment of lower back injuries that is expected for *any* medical professional who diagnoses and treats that kind of injury. Dr. Kumar, a neurosurgeon, did not testify as to the standard of care for a neurosurgeon, nor did he suggest that Dr. Schneider ought to have conducted himself as a neurosurgeon would have. Neither would have been appropriate, as doing so would have raised the standard to that of a neurosurgeon. Rather, Dr. Kumar testified as to the expected knowledge and conduct of any medical professional who is called upon to treat people presenting with back injuries, be they emergency medical technicians, emergency room physicians, family physicians, chiropractor or others.

[15] Canadian appellate courts have determined that a specialist can provide evidence on the standard of care of a general practitioner: *Robinson v. Sisters of St. Joseph of the Diocese of Peterborough in Ontario* (1999), 117 O.A.C. 331, 29 C.P.C. (4th) 184 (Ont. C.A.); *Briffett v. Gander and District Hospital* (1996), 137 Nfld. & P.E.I.R. 271, 29 C.C.L.T. (2d) 251 (Nfld. C.A.); *Quintal v. Datta* (1988), 68 Sask.R. 104, 12 A.C.W.S. (3d) 139 (Sask. C.A.). In *Robinson v. Sisters of St. Joseph*, the Ontario Court of Appeal stated:

There is no general rule that a specialist cannot offer an opinion as to the applicable standard of care governing medical treatment provided by a general practitioner, or that the specialist cannot offer an opinion as to whether the general practitioner met the applicable standard. The admissibility of the specialist's opinion depends on the subject matter on which that opinion is offered and the specialist's training and experience. Surely, there are treatments and procedures which are common to the practices of general practitioners and specialists alike.

[16] In *Briffett v. Gander and District Hospital* the Newfoundland Court of Appeal stressed that, as persons advance in a profession, they add to their understanding of a topic, and noted that one common function of a specialist expert is in educating more general practitioners as to what the general practitioners need to know about a topic:

48 ... Both specialists, having been trained as general practitioners before acquiring their specialty, and being members of the faculty teaching student doctors, could be considered well versed in what should be expected from average general practitioners in the proper care of patients with potential heart problems in hospital emergency units in 1987. There is no reason why Drs. Stone and MacCallum should be regarded as other than qualified to voice opinions on what should have been the level of skill, knowledge and judgment expected from average casualty officers in the position of Drs. Johnson and Cooper in diagnosing and treating patients with signs of coronary problems, such as Mr. Briffett presented. The trial judge was not, therefore, in error in receiving these cardiologists' evidence as to the appropriate standard of care.

[17] The role of specialists in providing guidance to general practitioners is also highlighted in *Lurtz v. Duchesne*, [2003] O.T.C. 319 at 184, 122 A.C.W.S. (3d) 384 (Ont. Sup. Ct. J.), varied on other grounds 2005, 194 O.A.C. 119, 136 A.C.W.S. (3d) 1055 (Ont. C.A.):

Dr. Rosser, who testified on behalf of the defendants, admitted that he read several articles on acromegaly before he could write his report setting out his opinion on Dr. Duchesne's standard of care. Dr. Singer, on the other hand, wrote the type of articles read by Dr. Rosser. I, therefore, qualified Dr. Singer, on the standard of care of a family practitioner, to give evidence on the issues of standard of care on diagnosis of acromegaly, and also on causation relating to acromegaly.

[18] While Dr. Schneider characterizes chiropractic as a separate and distinct profession, I conclude that chiropractic is a part of the larger “medical community”: that is, one of the myriad of diverse medical options available to the public. The chiropractors who testified did not see themselves as a profession that is incompatible with other medical practitioners, based on a completely separate body of theory and diagnosis. Instead, the chiropractors testified that their profession used evidence-based techniques, based on the same understanding of spine structure and dysfunction as physicians. These experts, and Dr. Schneider, did not dispute that certain kinds of back and spine injuries are outside their ability to treat, and that patients with these injuries should be transferred to medical doctors for treatment and surgery.

[19] Similarly, chiropractic diagnostic procedures are a subset of those available to medical doctors. Both chiropractor and non-chiropractor medical experts who testified referred to the same kinds of diagnostic tests and patient symptoms. This was not a situation where Dr. Kumar was unfamiliar with the manner in which Dr. Schneider had attempted to diagnose Mr.

Malinowski's condition. Medical imaging technology is the one diagnostic tool used by medical doctors but not chiropractors. Dr. Kumar's testimony related not to the standard of care of a chiropractor evaluating that kind of evidence but, rather, when a chiropractor or other medical professional should refer a patient experiencing back pain for medical imaging.

[20] I conclude that Dr. Kumar's testimony related to the standard of care of non-specialists in back injury diagnosis and treatment. Dr. Kumar did not conclude that Dr. Schneider failed to meet the standard of care of a neurosurgeon but, rather, that of a non-specialist who treats persons with back and spine complaints. Dr. Kumar has the expertise to comment on what a non-specialist would and should know. Similar to *Briffett v. Gander and District Hospital* and *Lurtz v. Duchesne*, Dr. Kumar testified he is a member of a council that develops general guidelines for all health care professionals who diagnose and treat back injury cases, including intervertebral disc injuries. As such, he was well suited to comment on the appropriate diagnostic and treatment regime for a chiropractor who encounters a person with an apparent spine injury, such as Mr. Malinowski.

[21] Dr. Kumar's testimony as to Dr. Schneider's standard of care in diagnosis and treatment of Mr. Malinowski's injuries is therefore relevant, and more probative than prejudicial.

2. Other Expert Witnesses

[22] A number of expert witnesses provided reports, testified at trial, or both, on behalf of the parties. For ease of reference, the list of experts and their areas of qualification (for the purposes of this action) are set out in Schedule "A" to this Judgment.

B. Legal Test for Medical Negligence

[23] To be successful in his action, Mr. Malinowski must prove on a balance of probabilities, that:

1. Dr. Schneider owed him a duty of care;
2. Dr. Schneider breached the standard of care;
3. Mr. Malinowski suffered an injury or loss; and
4. Dr. Schneider's actions were the actual and legal cause of his injury or loss.

(E. I. Picard and G. B. Robertson, *Legal Liability of Doctors and Hospitals in Canada*, 4th ed. (Toronto: Thompson Canadian Limited, 2007)).

III. DUTY OF CARE

[24] Dr. Schneider acknowledged that he owed a duty of care to Mr. Malinowski.

IV. STANDARD OF CARE

A. Standard of Care - Legal Principles - Chiropractor Standard of Care

[25] The parties did not dispute the standard of care that is required for chiropractors. It was described in *Olsen v. Campbell-Jones* as:

the degree of care, diligence, judgment and skill which is exercised by a normal, prudent or reasonable chiropractor under like or similar circumstances and with the same experience and training.

(See also *Penner v. Theobald* (1962), 35 D.L.R. (2d) 700 at paras. 12 -13, 40 W.W.R. 216 (Man. C.A.); *Balcom v. MacDonald*, 2000 BCSC 1426 at para. 91, 99 A.C.W.S. (3d) 873; *Loffler v. Cosman*, 2010 ABQB 177 at paras. 66-69; *Dickson v. Pinder*, 2010 ABQB 269 at paras. 15-17.)

[26] Chiropractors are treated like any other medical professionals: *Heughan v. Sheppard*, [2000] O.T.C. 413 at para. 160 (Sup. Ct. J.).

[27] A trial judge usually evaluates a professional's standard of care with the assistance of expert evidence on the standards and practices of that discipline. Mr. Malinowski called Dr. Carstensen and Dr. Kumar to comment on the appropriate standard of care for Dr. Schneider, while Dr. Schneider called Dr. Henderson as his expert witness on this issue.

B. Informed Consent

[28] Canadian law clearly establishes that any medical treatment of a patient is an assault unless the patient has consented to that treatment. The Ontario Court of Appeal in *Fleming v. Reid* (1991), 4 O.R. (3d) 74 at 85, 82 D.L.R. (4th) 298 (Ont. C.A.), endorsed in *Ciarlariello v. Schacter*, [1993] 2 S.C.R. 119 at para. 40, 100 D.L.R. (4th) 609 described the patient's right to control medical treatment:

The right to determine what shall, or shall not, be done with one's own body, and to be free from non consensual medical treatment, is a right deeply rooted in our common law. This right underlies the doctrine of informed consent. ... The fact that serious risks or consequences may result from a refusal of medical treatment does not vitiate the right of medical self determination. ... It is the patient, not the doctor, who ultimately must decide if treatment — any treatment — is to be administered.

[29] This is a facet of the "patient-centred" approach to healthcare that was referenced by the Supreme Court of Canada in *Reibl v. Hughes*, [1980] 2 S.C.R. 880, 114 D.L.R. (3d) 1, and *Arndt v. Smith*, [1997] 2 S.C.R. 539, 148 D.L.R. (4th) 48. Permission to treat is not merely a question of the patient granting a medical professional the right to proceed, but also requires the

patient be “informed” about the proposed therapy and have a clear understanding of that treatment, its risks and benefits, and alternative therapies.

[30] The parties do not dispute that Dr. Schneider should have obtained Mr. Malinowski’s informed consent prior to any chiropractic treatment. They disagree, however, on a number of points:

1. whether Mr. Malinowski had been properly informed about the proposed treatment before that treatment occurred;
2. whether, if Mr. Malinowski had consented to the February 26 treatment, further information and disclosure was required prior to the February 27 treatment; and
3. whether Mr. Malinowski consented to the February 26 and 27 treatments.

1 Informed Consent - Law

[31] In *Dickson v. Pinder*, at para. 68, Yamauchi J. identified five components to informed consent:

1. the medical practitioner’s diagnosis of the patient’s condition;
2. the prognosis of that condition with and without medical treatment;
3. the nature of the proposed medical treatment;
4. the risks associated with the proposed medical treatment; and
5. the alternatives to the proposed medical treatment, and the advantages and risks of those alternatives.

[32] Mr. Malinowski agrees that Dr. Schneider informed him in relation to the first three items on this list. What remains in dispute is the adequacy of his disclosure of risks from chiropractic treatment and of non-chiropractic alternatives.

a. Risks of the Proposed Treatment

[33] Courts recognize that medical treatment and even examination often involve some kind of risk to a patient. It is crucial that patients are made aware of these risks. Lamer C.J.C. in *Hopp v. Lepp*, [1980] 2 S.C.R. 192, 112 D.L.R. (3d) 67, made clear every medical professional has a duty to inform the patient:

... in obtaining the consent of a patient for the performance upon him of a surgical operation, a surgeon, generally, should answer any specific questions posed by the patient as to the risks involved and should, without being questioned, disclose to him the nature of the proposed operation, its gravity, any material risks and any special or unusual risks attendant upon the performance of the operation. ... [Emphasis added.]

[34] A material risk is one which, objectively, the patient would want to know (*Ciarlariello v. Schacter*, at 133):

In deciding whether a risk is material and therefore, one which should be explained to the patient, an objective approach should be taken. The crucial question in determining the issue is whether a reasonable person in the patient's position would want to know of the risk.

[35] A reasonable patient wants to know two kinds of risks, those that are likely to be encountered, and those that are infrequent but which have severe consequences: *White v. Turner* (1981), 120 D.L.R. (3d) 269 at paras. 52-54 (Ont. S.C.), affirmed 47 O.R. (2d) 764, 12 D.L.R. (4th) 319 (Ont. C.A.); *Zaiffdeen v. Chua*, 2005 ABCA 290 at para. 25, 380 A.R. 200; *Zimmer v. Ringrose* (1981), 124 D.L.R. (3d) 215, 28 A.R. 69 (Alta C.A.), leave denied [1981] S.C.C.A. No. 200. In *Dickson v. Pinder*, at para. 74, Yamauchi J. summarized these categories:

a medical practitioner must disclose a risk, where the patient would not know of the risk and either:

- (a) the risk is a likely consequence, and the injury that would result is at least a slight injury, or
- (b) the risk has a serious consequence, such as paralysis or death, even where that risk is uncommon but not unknown.

[36] The Alberta Court of Appeal has recently commented, in *Martin v. Findlay; Martin v. Capital Health Authority*, 2008 ABCA 161, 432 A.R. 165, on the manner in which risks should be disclosed. The terminology used to inform a patient is of less consequence. Rather, an explanation of the potential deleterious result is crucial:

33 ... The standard of care did not require that the surgeon disclose the mechanism of the risk. Mr. Martin was told of the risks of the surgery which could result from a stroke. These included death, speech impairment and paralysis. He was told of the risk of the very injuries which occurred. [Emphasis added.]

[37] A patient must be informed using language and an explanation that is appropriate to that patient. A medical practitioner has the responsibility to ensure risks are disclosed *and understood*:

38 Cases in which the informed consent issue focussed on the patient's understanding of the risk disclosure reveal that the circumstances of the patient and his or her capacity to understand are crucial to determining whether the physician has done enough to present the information clearly. Cases where physicians were found to have disclosed risks with insufficient clarity involved patients with limited language comprehension (Reibl, Ciarlariello, and Schanzl v. Singh, [1988] 2 W.W.R. 465, 56 Alta L.R. (2d) 303 at 313 (Q.B.)), patients who were elderly and clearly resistant to discussing risks (Kellet v. Griesdale, [1985] B.C.J. No. 1414, 1985 CarswellBC 1091 at para. 20 (S.C.)), unsophisticated patients with limited education (Byciuk v. Hollingsworth at paras. 31-33, and Paradis (Litigation Guardian of) v. Labow, [1996] O.J. 1326, 1 O.T.C. 212 at paras. 39 and 48 (Gen. Div.)), and patients under emotional or physical distress (Brown v. Degani, [1996] O.J. No. 126, 1996 CarswellOnt at para. 28 (Gen. Div.) and Smith v. Tweedale (1995), 4 B.C.L.R. (3d) 325, 55 B.C.A.C. 52).

b. Alternative Treatments and Their Risks and Alternatives

[38] The consequence of inaction and alternative treatments are another necessary component of the information presented to a prospective patient. Prowse J.A. in *Zimmer v. Ringrose* stressed that a patient needs to put his or her decision in context:

With a view to revealing any probable or special risks involved, the physician or surgeon should also discuss the benefits to be gained from the recommended treatment or operation, the advantages and disadvantages associated with alternative procedures and the consequences of foregoing treatment. Such a discussion is essential since a patient cannot measure risks in the abstract. To discharge his duty of care, the doctor must give the patient some yardstick against which he can assess the options available to him. [Emphasis added.]

[39] Similarly, in *Dickson v. Pinder* at para. 81, Yamauchi J. said

... [t]his is a fact-dependent threat assessment process. A patient cannot make a meaningful and informed choice to consent to a therapy unless that patient knows the consequences of other reasonable alternatives or inaction, and can balance the risks and benefits of the proposed therapy against those alternatives.

(See also *Haughian v. Paine* (1987), 37 D.L.R. (4th) 624, 55 Sask.R. 99 (Sask. C.A.); *Zaiifdeen v. Chua*; *Sicard v. Sendziak*, 2008 ABQB 690 at para. 111, 98 Alta. L.R. (4th) 44; *Gallant v. Patten*, 2010 NLTD 1 at paras. 55-58, 292 Nfld. & P.E.I.R. 279.)

[40] Only reasonable alternatives need to be disclosed. In *Seney v. Crooks*, 1998 ABCA 316 at paras. 57-58, 223 A.R. 145, the Alberta Court of Appeal said that the “scope of the duty to inform must be approached carefully” and might not include a “fringe alternative” or “alternative medicine practices.” No obligation exists where the medical practitioner believes that the alternative means of treatment are not reasonable options: *Seney v. Crooks*, at para. 69; *Bucknam v. Kostuik*, (1983), 44 O.R. (2d) 102, 3 D.L.R. (4th) 99 (Ont. H.C.J.) affirmed on other grounds, (1986), 55 O.R. (2d) 187, 38 A.C.W.S. (2d) 158 (Ont. C.A.).

[41] Similarly, if non-treatment is a reasonable alternative, then that too ought to be disclosed: *Haughian v. Paine* at para. 38; *Sicard v. Sendziak*, at para. 111; *Guay v. Wong*, 2008 ABQB 638 at para. 11, 463 A.R. 289. If inaction involves risks, then logically that too is something a patient would want to know.

2. Informed Consent - Evidence

[42] Mr. Malinowski was examined and treated at both visits with Dr. Schneider. Dr. Schneider has very limited recollections of the two visits. He remembers Mr. Malinowski was assisted into the clinic on February 26, but testified he has no memory of the February 27 visit. He has no independent recollection of discussing proposed treatments with Mr. Malinowski.

[43] Mr. Malinowski’s recollection of the two visits provides some evidence of how he consulted with Dr. Schneider and how he signed the consent form. He remembers that at the February 26 visit he signed some papers in the waiting room, was interviewed by Dr. Schneider, and participated in some tests that included a sensory pin wheel and a reflex hammer. He says he was not warned that the treatment could aggravate his back; could cause a new injury; could cause permanent pain and numbness; or could result in loss of sensation, control of his legs, and urinary control. He recalls little from the February 27 visit. He does not dispute that he signed a consent form, and that he did not refuse treatment from Dr. Schneider.

[44] That Dr. Schneider has only limited memories of his encounters with Mr. Malinowski is not unexpected. He therefore testified as to his usual procedure in 2002 when examining a patient such as Mr. Malinowski. His records from the visits are also relevant to establishing what occurred at each visit. Dr. Schneider testified that review of Mr. Malinowski’s file indicated that the standard paperwork was completed at the February 26 visit, and thus he believed he obtained informed consent in his usual manner. I accept that he followed his usual procedure.

a. The February 26 Visit

[45] Dr. Schneider explained his typical new patient intake procedure. The receptionist, Ms. Silvester, would give new patients a number of forms to complete, including the “informed consent form”, which they would be instructed to read and sign. Ms. Silvester was to inform Dr. Schneider if a patient did not sign the informed consent form. Patients had the opportunity to ask questions in relation to the informed consent form once they met with Dr. Schneider. However,

Dr. Schneider indicated it was not his usual practice to discuss the consent form and its contents with a patient.

[46] The contents of the informed consent form were the subject of considerable argument, and so I reproduce the body of this document in full:

INFORMED CONSENT TO CHIROPRACTIC ADJUSTMENTS AND CARE

In our experience the most effective treatment for spinal joint dysfunction involves the adjustment of spinal joints. Specific adjustments can reduce pain, tenderness and muscle spasm, improve spinal mobility as well as provide many other beneficial effects. The doctor will not give a chiropractic adjustment if he is aware that such care may be contra-indicated in your case. It is, however, important that the patient make it known to the doctor any and all symptoms, illnesses and diseases that he/she is currently or has previously suffered from in order for the doctor to make an accurate diagnosis.

I understand and I am informed that in the practice of chiropractic, as in all other forms of health care, there are some very slight risks to treatment, including, but not limited to muscle strains and sprain, fractures, disc injuries and strokes. The risk of injuries or complications from chiropractic treatment is substantially lower than that associated with many medical or other treatments, medications, and procedures given for the same symptoms. I do not expect the doctor to be able to anticipate and explain all risks and complications and I do wish to rely on the doctor to exercise judgment during the course of the procedure which the doctor feels at this time, based upon the facts known, are in my best interest.

I acknowledge that I have discussed, or have had the opportunity to discuss, with my chiropractor the nature and purpose of chiropractic treatment in general and my treatment in particular (including spinal manipulation) as well as the contents of this Consent. I hereby request and consent to the performance of chiropractic adjustments and other chiropractic procedures, including various modes of physical therapy and, if necessary, diagnostic x-rays. I intend this consent form to cover the entire course of treatment for my present condition and for any future conditions(s) for which I seek treatment.

I authorize Dr. Schneider to inform my family physician regarding my care in order to provide coordinated cooperation in the treatment of my condition.

[47] Dr. Schneider explained that the informed consent form was adapted from a version published in the Spring 1999 edition of “Cornerstone” (a professional journal of the College of Chiropractors of Alberta). He indicated it “was required under legislation”, which he explained meant the Alberta *Chiropractic Profession Act*, R.S.A. 2000, c. C-13 (now subsumed in the

Health Professions Act, R.S.A. 2000, c. H-7), and “... the policies of the College of Chiropractors [of Alberta]”.

[48] Dr. Schneider testified that he understood the requirement to obtain informed consent was a policy of the College of Chiropractors of Alberta. It was set out in a 2000 issue of the *Cornerstone*:

Members will obtain from every patient ... informed consent before commencing any examination, diagnostic procedure, or treatment. Informed consent must disclose to the patient ... the nature of the proposed treatment or procedure and any potential risks, including those that may be of a special or unusual nature. Chiropractors must provide patients the opportunity to ask questions concerning the risks involved and should answer those questions to the patient’s satisfaction. In view that the best record of consent is one that is objectively documented, informed consent must be given in writing. Once written informed consent has been obtained, permission for future treatments is also granted. However, there is a continuing obligation to keep patients informed and to advise them of any new or changed material risk.

[49] Informed consent was also an issue in the post-diagnostic interview between Dr. Schneider and his patients. Once Dr. Schneider had conducted an examination of Mr. Malinowski he would review his observations and identify the “primary diagnosis”, what he thought was the most likely explanation for Mr. Malinowski’s condition (a sacroiliac joint sprain) and any other possible explanation (a differential diagnosis, in this case a lumbar intervertebral disc protrusion). Dr. Schneider then discussed the proposed treatment and its alternatives. He explained that chiropractic does not “make you any better” but, rather, it shortens the period of disability and pain, and increases movement. For a sacroiliac sprain, chiropractic therapy brings a risk of bruising on the treated area, deeper muscular pain, and a low risk of fracture, disc injury, and nerve injury. He indicated he would not have mentioned the risk of CES or detailed its associated symptoms.

[50] Dr. Schneider would then have explained alternative treatments, including drugs (anti-inflammatory medication, muscle relaxants, analgesics) and surgery, and their associated risks. Dr. Schneider highlighted that alternative treatments had the potential for negative side-effects: for example, anti-inflammatory agents have a strong possibility of causing gastrointestinal upset and a serious risk of stomach bleeding, heart attacks, or addiction and muscle relaxants cause sleepiness, are not suited to work situations, and are addictive. Dr. Schneider agreed that his standard approach was to indicate that strong analgesics or narcotics prescribed for acute and intractable low back pain have “a significant risk of addiction”. Similarly, he agreed he would warn that surgical alternatives that involve anaesthetics “have a risk of dying or suffering brain damage.” Physiotherapy that involved electro-therapy can cause rashes and muscle aches.

b. The February 27 Visit

[51] Dr. Schneider did not have any recollection of his examination and treatment of Mr. Malinowski on the following day. He explained that his usual procedure for a subsequent visit was different and involved a more limited examination, an “interactive reassessment”. Prior to treatment Dr. Schneider inquired as to the patient’s response to earlier treatment and the patient’s present condition. Dr. Schneider did not indicate there was any particular informed consent component to a repeat visit which occurred on the patient’s work-site.

c. Experts’ Testimony

i. Dr. Carstensen

[52] Dr. Carstensen testified as an expert for Mr. Malinowski concerning a chiropractor’s duty to inform a patient as to proposed treatment. He indicated that informed consent would be met where a chiropractor explained the benefits and risks of the proposed treatment, both chiropractic and non-chiropractic alternatives, and the probable consequences of a patient not receiving treatment. Dr. Carstensen indicated there was no question as to the need for this kind of disclosure. This is the standard taught in chiropractic schools, recommended for malpractice insurance, and is a part of the Glenerin Guidelines which are available to chiropractors. Dr. Carstensen stressed that these explanations need to be in a form that is understood by the patient. This consultation should occur after the patient had been examined. The requirement for informed consent would not be satisfied prior to examination by a patient reading and signing a form that indicated the patient had no questions concerning treatment.

[53] Dr. Carstensen identified several key elements that he considered ought to have been stressed once Dr. Schneider had come to his primary diagnosis that Mr. Malinowski had a sacroiliac joint sprain:

1. his alternative diagnosis was injury to a lumbar intervertebral disc;
2. the proposed chiropractic adjustment might aggravate a lumbar intervertebral disc injury, which could lead to CES, which has serious and permanent effects (including impairment and loss of sensation to the legs, bowel and urinary dysfunction, and loss of sexual function and sensation); and
3. non-chiropractic treatments (including bed rest, pain treatment, and physiotherapy), would likely relieve Mr. Malinowski’s condition in a 4 to 12 week period without any risk of CES.

[54] Dr. Carstensen opined that a chiropractor’s duty of care in these circumstances includes warning a patient of CES symptoms since that is a known risk, so that if the patient suffers a CES injury he can obtain proper medical (non-chiropractic) attention.

ii. Dr. Henderson

[55] Dr. Henderson provided expert testimony for Dr. Schneider on the issue of informed consent. While he did not dispute the necessity that a chiropractor must obtain informed consent prior to engaging in treatment, Dr. Henderson disagreed as to the manner in which informed consent might be obtained. The key distinction between his opinion and Dr. Carstensen's is the manner in which risks should be addressed. Dr. Henderson explained that it was acceptable for a patient to be presented with a form prior to examination that identified risks and authorized treatment, that a chiropractor need only confirm that the form had been reviewed and signed, and that the chiropractor need only ask if the prospective patient had any questions. In his opinion, alternative treatments need only be disclosed in certain more limited instances, and this was a question of 'clinical judgment'.

[56] Dr. Henderson reviewed the informed consent form used by Dr. Schneider, and indicated that it met the Glenierin Guidelines for chiropractic conduct. The omission of CES as a possible consequence of chiropractic adjustment was unremarkable as Dr. Henderson indicated there was no known link between chiropractic treatment and that injury.

[57] On cross-examination it emerged that Dr. Henderson appeared to have some misapprehension as to what constitutes informed consent under Canadian law. Specifically, he appeared to believe that the binding authority for informed consent is professional guidelines issued by chiropractic institutions (such as the Alberta College and Association of Chiropractors), which he identified as "legislation" and "regulations". Dr. Henderson appeared to be of the opinion that instructions of the courts are irrelevant until assimilated by these professional organizations into their guidelines:

I have to square it with what was available to me as a chiropractor. I realize case law dictates and trickles down into the various colleges. The college has to pick up on that. The college is my compass, my guide in terms of providing informed consent.

Dr. Henderson is incorrect. Law in Canada is established through legislation and from decisions of the courts. A chiropractic college is neither and chiropractors are not free to ignore legislation or caselaw until their governing professional bodies direct them to abide by legal standards. If Dr. Henderson's explanations reflect the approach taken by chiropractors generally in Canada, then that is of concern. Professional standards are relevant in medical and chiropractic malpractice cases, but professional policies which do not adhere to law are no shield to a medical professional.

[58] In light of his apparently poor understanding of the character and source of legal obligations on health professionals, I put little weight on Dr. Henderson's testimony in relation to informed consent. Instead I accept the approach taken by Dr. Carstensen, which I observe is consistent with Canadian caselaw.

3. Informed Consent - Analysis

[59] Mr. Malinowski has never claimed he did not authorize treatment, but what remains in question is whether he understood what treatment entailed. The question of whether informed consent was obtained thus involves a number of subordinate issues:

1. What was the effect of Mr. Malinowski signing the informed consent form?
2. Was Dr. Schneider's description of the risks of the proposed chiropractic treatment adequate?
3. Was Dr. Schneider's description of the alternatives to the proposed chiropractic treatment adequate?
4. If the answers to questions 1 through 3 is "yes", then was informed consent also properly obtained during the February 27 visit?

a. Informed Consent Form

[60] As a preliminary issue, I wish to address the disturbing explanations and beliefs of Dr. Schneider and Dr. Henderson about how a patient consent form operates. Both referred to chiropractic professional organizations and their guidelines, and sample documents that had been provided by these sources. Both seemed to believe that these professional bodies issued "legislation" and, where their guidelines were met, the law was satisfied.

[61] As I have noted above, that is not correct. The standards for medical practitioner conduct flow from Parliament, the Legislatures, and the courts. It is no excuse for a medical professional to say that their practices need not conform to the legal standard until those legal standards have 'trickled down' to individual practitioners. If an 'informed consent form' provided by a medical professional association is inadequate, then the form does not discharge a medical professional's obligation.

[62] I reject that this form can provide informed consent simply due to its content and the manner in which it was signed. The form was provided to Mr. Malinowski prior to his examination; the chiropractic office receptionist instructed he read and sign it. Mr. Malinowski says he followed those instructions, and I accept his statement. Nonetheless I have two main concerns about the effect of his having done so. First of all, the last paragraph of the form says the patient has *already* spoken to and been informed by the chiropractor:

I acknowledge that I have discussed, or have had the opportunity to discuss, with my chiropractor the nature and purpose of chiropractic treatment in general and my treatment in particular (including spinal manipulation) as well as the contents of this Consent.

Counsel for Dr. Schneider argued strenuously that a document signed *prior* to disclosure and discussion of a proposed treatment and its alternatives could somehow be validated by that patient later having an opportunity to ask questions about the proposed therapy. That result is

both absurd and contrary to the guiding principles of the informed consent process: that a patient must have a real and effective opportunity to know the nature of a proposed medical treatment, and then choose whether or not to have that treatment. As Yamauchi J. concluded in *Dickson v. Pinder*, at para. 84, “[t]hat approach makes a mockery of the jurisprudence flowing from the doctrine of informed consent since Hopp.”

[63] If a medical professional wishes to point to a document and say “this form indicates I obtained consent of my patient”, then any consultation procedure indicated by that document to have occurred must correlate accurately with the consultation process that in fact had occurred. That was not the case here.

[64] Canadian courts have expressed concern that any form, on its own, can properly educate and inform a prospective patient. In *Coughlin v. Kuntz* (1987), 17 B.C.L.R. (2d) 365 at 393, 42 C.C.L.T. 142 (B.C.S.C.), affirmed 42 B.C.L.R. (2d) 108, 2 C.C.L.T. (2d) 42 (B.C.C.A.), the Court concluded a consent form does not discharge the duty of a surgeon to consult with a patient:

In my opinion, the consent forms signed by the plaintiff cannot in any way protect the defendant as I find the defendant failed in his duty to explain and fully disclose all relevant information to the plaintiff relating to his proposed neck surgery. The time to make such an explanation and provide the full disclosure, particularly in a situation such as here of elective surgery, was in the defendant's office in a setting where there was adequate time for making the explanation and settling the plaintiff regarding any questions he may have had about the proposed surgery. The signing of the consent forms by the plaintiff in the hospital on the eve of surgery was a mere formality incapable of satisfying the defendant's duty of disclosure. For consent forms to have any legal effect there must be an adequate knowledge base on the part of the patient before the exempting language of the form will provide its intended protection for the surgeon or the hospital from adverse effects of the operation. [Emphasis added.]

(See also *Archibald v. Kuntz*, [1994] B.C.J. No. 199 (QL) (B.C.S.C.); *Byciuk v. Hollingsworth*, 2004 ABQB 370 at para. 33, 358 A.R. 312; *Martin v. Findlay*, 2008 ABCA 161 at para. 38, 432; *Tremblay v. McLaughlan*, 2001 BCCA 444 at para. 28, 91 B.C.L.R. (3d) 264.)

[65] The effect and operation of consent forms has been addressed in the context of chiropractic treatment. Justice Yamauchi in *Dickson v. Pinder*, at para. 87, concluded that a consent form did not document informed consent as the patient in that matter did not understand “... the meaning and implications of the statements contained in that form.”

[66] This approach, that an informed consent form is relevant where it substantially *explains* therapy and risks, was expanded upon in *Kern v. Forest*, 2010 BCSC 938. Kelleher J. rejected defence arguments that an informed consent form had been adequate, and concluded that, since

informed consent required a patient know of alternative therapies and risks associated with treatment, the form is meaningless without that information:

122 In my view, the written consent form is inadequate. There is no description of alternative treatments. It minimizes the risks involved: "Some very slight risks to treatment, including, but not limited to, muscle strains and sprains, disc injuries and strokes" (emphasis added). There is no explanation of the consequences if the risk of disc injury materialized. [Emphasis added.]

Similarly, if a chiropractor simply explained and recapitulated the contents of an inadequate informed consent form, then that explanation was similarly insufficient (para. 124).

[67] Some recent Alberta decisions took a different approach. In *Loffler v. Cosman*, 2010 ABQB 177, the Court concluded that a standard consent form provided by a chiropractic professional organization was sufficient to discharge a chiropractor's duty to consult. The Court relied specifically on expert testimony of typical practice by chiropractors. A signed consent form was adequate proof of informed consent in *Olsen v. Jones*, 2009 ABQB 371, 11 Alta. L.R. (5th) 203. However in that instance the patient had an extensive prior history of chiropractic treatment and the manner in which the document had been co-signed by the chiropractor indicated both the patient and chiropractor had discussed its contents.

[68] I prefer the approach taken in *Dickson v. Pinder* and *Kern v. Forest*. A form that purports to provide informed consent ought to be assessed on its substance. Regardless of common practices within a profession, a medical treatment consent form that fails to discharge the requirements of informed consent does not prove informed consent was granted, even if it was signed.

[69] I conclude the informed consent form signed by Mr. Malinowski did not, on its own, discharge Dr. Schneider's duty to inform. A health professional has an obligation to disclose any "special or unusual risks", severely deleterious consequences of a therapy that are known though infrequent. Dr. Schneider acknowledged that permanent nerve injury, including paralysis, loss of sensation, and CES are rare but possible consequences of chiropractic adjustment. While intervertebral disc injury is a *cause* of these symptoms and is mentioned in the consent form, the *consequences* to the patient of treatment are what must be disclosed: *Martin v. Findlay*; *Martin v. Capital Health Authority*; *Kern v. Forest*. That is the critical information that is absent in this case.

[70] My second main concern regarding Mr. Malinowski's reading and signing of the informed consent form arises out of Mr. Malinowski's limited education and the fact that English is not his first language. While Dr. Schneider may not have been aware of Mr. Malinowski's educational background, he should have been aware, as was obvious at trial, that English is not his first language. Mr. Malinowski speaks with a reasonably heavy accent. When faced with a patient whose personal characteristics might suggest there is a language barrier to his or her understanding of a consent form, the medical practitioner ought to take steps to ensure that

language limitations have not prevented or limited the patient's understanding of the form that the patient has been asked to read and sign. A person of limited education, or one with a limited knowledge of the English language, or one who is under the effects of medication or some other factor which might limit concentration or capacity, may have difficulty understanding concepts such as "spinal joint dysfunction", "spinal mobility", "contra-indicated", or other words or expressions used in the form. When faced with such a patient, medical practitioners should ensure that the patient understands the meaning of the words and expressions as well as the overall meaning of the document.

b. Post-diagnosis and Pre-treatment Consultation - Risk of Treatment

[71] As I have previously indicated, I have no reason to believe Dr. Schneider departed from his usual practice of consulting with Mr. Malinowski in relation to the proposed February 26 treatment. Accordingly, he would have described the proposed treatment and its possible side effects, alternatives to that chiropractic treatment, and the consequences of not having any treatment. Dr. Schneider's testimony reveals two problematic aspects of the pre-treatment consultation.

[72] First, Dr. Schneider explained that chiropractic adjustment could possibly result in disc and nerve injury. During cross-examination Dr. Schneider indicated he did not explain the symptoms that may flow from those injuries:

- Q. You advised him of the possibility of numbness and pain in his legs?
- A. Which is one of the primary indicators of a disc injury proceeding.
- Q. You did not advise him that there was a rare possibility that the treatment you proposed could cause irreparable harm to the nerves in his lower back resulting in cauda equina syndrome and pain, numbness, inability of the muscles to contract and decreased reflexes in his legs, and bladder dysfunction, inability to control defecation, and sexual dysfunction, did you?
- A. No. However I would have mentioned the fact that if the condition worsened, he would require, he may require surgery to correct any discal pathology.

[73] As I concluded above, the symptoms and consequences of CES are a special or unusual risk that ought to have been disclosed to Mr. Malinowski prior to his adjustment. That did not occur and, on that basis, I conclude informed consent was not obtained.

c. Post-diagnosis and Pre-treatment Consultation - Alternative Treatments

[74] The manner in which Dr. Schneider described alternative non-chiropractic options is also of concern. While he stressed the benefits of chiropractic adjustment, alternatives such as surgery and pharmaceuticals were described in a manner that seems alarmist: surgery can lead to

death and drugs can cause heart attacks or addiction. In contrast, Dr. Schneider failed to explain the full potential consequences of the chiropractic adjustment which he was proposing to administer.

[75] A medical professional should not be a salesman of a service. Chiropractic may be a business, but health professionals are expected to conduct themselves to benefit their patients and not themselves. The promotional tone of Dr. Schneider's comments are echoed in the first paragraph of the written informed consent form:

In our experience the most effective treatment for spinal joint dysfunction involves the adjustment of spinal joints. Specific adjustments can reduce pain, tenderness and muscle spasm, improve spinal mobility as well as provide many other beneficial effects.

[76] Later in this judgment I evaluate expert testimony as to whether Dr. Schneider was correct in immediately treating Mr. Malinowski with a chiropractic adjustment. I conclude, on the basis of expert testimony, that bed-rest and analgesics would have been an acceptable, if not preferable, immediate response to Mr. Malinowski's condition. That fact was not related to Mr. Malinowski by Dr. Schneider, and that omission is significant and problematic.

[77] This trial does not require the Court to address the efficacy or non-efficacy of chiropractic treatment. While I understand the enthusiasm of a practitioner in describing their discipline and its benefits, proper conduct for a health professional also requires a certain degree of detachment and objectivity. The minimization of the "special and unusual" risks of chiropractic, coupled with emphasis on the most dire potential consequences of alternatives to chiropractic adjustment, is not appropriate. It can distort the perception of a patient, particularly one who is inexperienced and naive. I conclude that in this sense Dr. Schneider did not discharge his obligation to inform his patient, impeding Mr. Malinowski's right to choose an appropriate response to his injury.

d. Informed Consent prior to the February 27 Treatment

[78] As Mr. Malinowski did not provide informed consent at the February 26 appointment, the cursory February 27 pre-treatment consultation cannot have provided informed consent for the adjustment performed that day.

4. Informed Consent - Conclusion

[79] I conclude that, while Mr. Malinowski did sign an informed consent form on his February 26 visit to Dr. Schneider's office, and he did verbally authorize chiropractic treatment during the February 26 and 27 visits, those steps did not constitute informed consent.

C. Would Mr. Malinowski Have Agreed to Treatment if Properly Informed?

[80] A failure to inform and to obtain consent can lead to an award in tort only if a patient would not have agreed to the treatment if properly informed of the treatment, its risks, and alternatives. This rule relates to causation: one person only injures another when that person *causes* the other's injury. A health professional causes an injury when that health professional's information and advice changes the form of treatment that would be chosen by a patient.

1. Legal Test

[81] The legal test for this analysis is clearly established. In *Reibl v. Hughes*, [1980] 2 S.C.R. 880, 114 D.L.R. (3d) 1, Laskin C.J.C. considered the question of whether a patient's hypothetical choice to engage in or refuse treatment should be based strictly on the testimony of the patient at trial:

... Merely because medical evidence establishes the reasonableness of a recommended operation does not mean that a reasonable person in the patient's position would necessarily agree to it, if proper disclosure had been made of the risks attendant upon it, balanced by those against it. The patient's particular situation and the degree to which the risks of surgery or no surgery are balanced would reduce the force, on an objective appraisal, of the surgeon's recommendation. Admittedly, if the risk of foregoing the surgery would be considerably graver to a patient than the risks attendant upon it, the objective standard would favour exoneration of the surgeon who has not made the required disclosure. ...

In saying that the test is based on the decision that a reasonable person in the patient's position would have made, I should make it clear that the patient's particular concerns must also be reasonably based ... In short, although account must be taken of a patient's particular position, a position which will vary with the patient, it must be objectively assessed in terms of reasonableness.

[82] Cory J. succinctly described this 'objective/subjective' assessment as "... whether a reasonable person in the circumstances of the plaintiff would have consented to the proposed treatment if all the risks had been disclosed." (*Arndt v. Smith*, [1997] 2 S.C.R. 539 at 554, 148 D.L.R. (4th) 48).

2. Evidence

[83] Therefore, Mr. Malinowski's characteristics and testimony are very relevant to this question. He testified that he was not warned by Dr. Schneider of the possibility that the proposed chiropractic treatment could result in permanent nerve damage and associated disorders, and that correlates with Dr. Schneider's explanation of his usual practice. When asked at trial whether he would have agreed to chiropractic treatment knowing that his condition could be worsened, or that permanent pain, and/or urinary, bowel, sexual, and muscular dysfunction might result, Mr. Malinowski stated he would have refused treatment: "I would say thank you

very much, and I would ask safety guys to take me back to the site, and I will ask for a taxi to drive me to my doctor.”

[84] Mr. Malinowski had not previously had chiropractic treatments, but was clearly familiar and comfortable with consulting medical physicians. He had regular medical doctors, Dr. Sawicki and Dr. Chiu. When his condition worsened after the February 27 treatment, Mr. Malinowski first called Dr. Chiu for an appointment and, when she was not available, requested the work-site safety personnel to call a taxi to take him to Dr. Sawicki. He followed Dr. Sawicki’s subsequent instructions.

[85] When left to his own devices he chose to rest and sleep, both at the work-site and when he returned home. He used pharmaceuticals to treat his pain. His responses were generally passive, he lay down on the floor of the bus when traveling to and from the work-site, and he had other people assist when he moved, dressed, and undressed.

3. Analysis

[86] I conclude that Mr. Malinowski would not have consented to or undergone chiropractic treatment had he been properly informed as to the risks associated with that treatment. Mr. Malinowski had no history of using chiropractors. Indeed, it is highly unlikely that he would have sought chiropractic treatment at all, had he not been taken to Dr. Schneider’s office by the safety personnel. I accept that he would have responded with caution and refused treatment had he been informed by Dr. Schneider of the full risks of chiropractic adjustment. As is obvious by Mr. Malinowski’s ongoing disabilities, nerve damage to the lower spine can be very serious. It is very clear from his conduct after February 25 that, when given an alternative as to how to address his injury, he was passive. He rested, used pharmaceuticals to treat pain, and slept when he could.

[87] Later I conclude that bed-rest and analgesics were a viable alternative response to a lower back injury of the kind reported on February 26. This ‘wait and see’ strategy for the first several days post-injury is an appropriate response. I have no doubt that, had Mr. Malinowski been told that bed-rest was a safe alternative, he would have preferred and chosen that response. That would have been a reasonable response for a person who had no prior exposure to chiropractic adjustment, who usually relied on non-chiropractic medical techniques, and who had been properly informed that the person might avoid potential very severe consequences by a non-chiropractic and passive initial response.

[88] Mr. Malinowski’s preferred medical response to any subsequent deterioration in his condition was to consult with one of his physicians, Dr. Chiu or Dr. Sawicki. That response, turning to familiar sources for medical care, is objectively reasonable for a patient with Mr. Malinowski’s characteristics.

[89] As a result, I conclude that a failure by Dr Schneider to inform Mr. Malinowski of the risks associated with the proposed chiropractic treatment and the existence of safe alternatives

caused Mr. Malinowski to consent to the February 26 and 27 treatments. I further conclude that Mr. Malinowski's response, if properly informed, was objectively reasonable and would have been to decline the chiropractic adjustment. Therefore, if the February 26 and 27 chiropractic treatments caused Mr. Malinowski's injuries, then Dr. Schneider is liable for the damages that resulted from his negligence in not obtaining informed consent.

D. The Role of Workplace Health Support and Associated Professionals

[90] There is an unusual aspect to this particular case and that is the connection between the employer and Dr. Schneider. Dr. Schneider treated patients from the construction site because he was specifically referred those patients as part of a contractual relationship, which extended to groups of workers being treated on-site each day. Work-site safety personnel directed Mr. Malinowski to Dr. Schneider. What are the implications of that relationship on whether Mr. Malinowski had been properly informed?

[91] As the analysis that follows indicates, I conclude that the relationship between Dr. Schneider and Mr. Malinowski's employer is relevant in a number of senses and, though it does not affect my analysis above, it nevertheless deserves consideration.

1. The Relationship Between Dr. Schneider and the Alberta Construction Joint Venture

[92] Dr. Schneider testified that in 2001 and 2002 a close relationship had developed between himself and the businesses that were involved in construction of the Shell Upgrader, a large petrochemical industry construction project in the Fort Saskatchewan area [the "Alberta Construction Joint Venture"]. The large number of workers and the character of the construction activities at the Shell Upgrader led to a large number of non-emergency occupational injuries which could not be managed by the local medical infrastructure. Dr. Schneider soon was receiving patients delivered by taxicab from the work-sites. Ultimately he negotiated a contract to treat patients at a work-site facility. Dr. Schneider estimated he daily treated between 4 and 15 patients at this on-site facility, between October 2001 and July 2002. Initial consultations with any new patient were still conducted at his Fort Saskatchewan clinic. He indicated that the on-site clinic also allowed for close coordination between management, who assigned tasks, and medical personnel, who assessed worker capacities.

[93] Dr. Schneider stressed that there was a separation between himself and the work-site's employers:

... aside from the clinical documentation that I'm required to keep and that I kept, the [Alberta Construction Joint Venture] occupational health staff were always concerned with perception. They wanted to make sure that we weren't thought of as a company doctor, which we were not. We were independently contracted doctors working under the WCB umbrella. But they wanted to make sure that these workers were happy, because a happy worker is a productive worker.

That said, Dr. Schneider was clearly focused on the results sought by his employers - minimum disruption in the work schedule, clear documentation for WCB purposes, and that work status not be affected.

[94] Mr. Malinowski's testimony provides additional indication of just how this relationship between chiropractor and work-site employer operated. Essentially, the safety officers recruited Dr. Schneider's patients. On February 26 Mr. Malinowski returned to work and reported to the first aid trailer and rested. He did not suggest an alternative response to his condition, but instead followed the instructions of the site safety officers:

When I woke up, I had two safety guys saying that, Eric, get ready, we're going to take to great chiropractor. He's going to help you. So they helped me. They put me up: I put my arms around them, and they carried me to the company truck.

Together they drove to Dr. Schneider's office in Fort Saskatchewan.

[95] Mr. Malinowski relied on health professionals to assist in his care and on the instructions he received from work-site safety personnel. When he was first injured on February 25 he went to the first aid trailer for assistance. When told to walk around later that day by a nurse, he complied.

[96] At Dr. Schneider's Fort Saskatchewan office he spoke to Dr. Schneider, who reassured Mr. Malinowski about his abilities. Again, Mr. Malinowski depended on persons he believed were professionals.

Q. Did Dr. Schneider say anything [to] you to about his abilities?

A. That he's a doctor and, don't worry, I'm going to take care of you. There's lots of guys like you coming because it's, like, heavy job, and lots of - and I helped out lots of guys. So basically I give myself to the professionals because I was in pain and drugged up. I didn't know what to do. [Emphasis added.]

[97] Mr. Malinowski's last comment is significant. He did not know how to respond to his condition. On February 27 he met with Dr. Sawicki because he knew something was wrong and he felt his condition was deteriorating, "I ask him for help, because I don't know what's going on." [emphasis added]. Furthermore, on cross-examination, when asked about his incomplete memories of the chiropractic consultations and treatments as his condition worsened, he acknowledged his memory was blurry, but very simply responds "I was scared."

[98] Subsequent medical examination makes clear Mr. Malinowski was seriously injured. He testified, and I accept, that between February 25 and 27 he was uncertain of how to respond to his condition. Understandably, he was frightened. Nevertheless, he believed his employment required that he return to the workplace, even though injured:

I felt obligated that I have to go back to work. There was no release papers from work, and I was asked to come there to job site.

[99] When there he followed instructions, he wanted relief:

Like, I was asked to be the at the site. I trusted the safety guys. I trusted them what they're doing at first aid trailer. I gave myself up to the professionals I thought, and I didn't ask much I just wanted to get help for the pain I got.

[100] I conclude that Mr. Malinowski believed, rightly or wrongly, that his choice of action in seeking medical assistance was restricted. He had to return to work and should undertake treatment indicated by the on-site safety officers.

2. The Informed Consent Obligations of a Health Professional Associated with an Employer

[101] Dr. Schneider stressed his independence from the employers of the workers injured at the Shell Upgrader work-site. Mr. Malinowski's evidence of just how workers flowed from the work-site and into Dr. Schneider's care is consistent overall with how Dr. Schneider explained the manner in which he and the Alberta Construction Joint Venture safety staff cooperated. Injured workers were transferred, sometimes in groups, for treatment at Dr. Schneider's Fort Saskatchewan clinic.

[102] The association of a health professional with an employer raises the possibility that the health professional might act more in the interest of an employer rather than an injured worker. As Justice Lebel observed in the recent decision of *Honda Canada Inc. v. Keays*, 2008 SCC 39, [2008] 2 S.C.R. 362 (in dissent), these objectives sometimes do not align:

... there was a clear conflict between Dr. Brennan's objective — to maximize employee productivity — and the objective of an employee's treating physician — to maximize the individual's well being. ...

[103] Dr. Schneider was clearly sensitive to the possibility that he might be seen as a "company doctor", and not acting in the best interests of his clients. I have concluded that, correctly or not, Mr. Malinowski perceived he should follow the instructions and suggestions of the Alberta Construction Joint Venture safety staff, and there is no dispute those staff were the ones who took Mr. Malinowski to Dr. Schneider's clinic.

[104] The courts have indicated that a health care professional seeking to obtain informed consent should be sensitive to specific characteristics of their patients, such as familiarity with procedures, language skills, and cultural characteristics: *Martin v. Findlay*; *Martin v. Capital Health Authority*, at para. 38. I alluded to this earlier in connection with Mr. Malinowski's obvious language limitations. In *Norberg v. Wynrib*, [1992] 2 S.C.R. 226 at para. 48, 92 D.L.R. (4th) 449, the majority of the court concluded a doctor could not claim a patient had consented to

a tort (sexual activity), where that consent was coerced. A doctor is obliged to make further enquiries when that doctor has reason to suspect consent may have been influenced by an outside cause. For example, in *Nagy v. Canada; Phillips v. Nagy*, 2006 ABCA 227 at para. 52, 272 D.L.R. (4th) 601, the Alberta Court of Appeal stated that, where a person was in police custody and had allegedly consented to an invasive body cavity search, a doctor had a positive obligation to take the detained person aside and, in private, confirm the patient had freely consented to the procedures.

[105] I conclude an analogous situation arises where a potential patient may feel an obligation to choose a particular therapy because of the influence of an employer. Dr. Schneider had a further obligation when dealing with an injured worker who had been referred by the employer's staff, to ensure that the injured person knew of non-chiropractic alternatives, of other chiropractors, and that the employee had every right to choose whatever treatment they wished, or not to receive treatment at all.

[106] Dr. Schneider did not fulfil that obligation but, instead, he 'promoted' his profession and emphasized the possible negative consequences of alternatives. Mr. Malinowski's report of his conversations would suggest that went further; that Dr. Schneider also promoted *himself* as the appropriate person to treat Mr. Malinowski's condition.

[107] My conclusion on this point merely re-enforces my previous analysis and its conclusion that Dr. Schneider did not meet the required standard in seeking to obtain informed consent.

3. The Employer's Role in A Patient's Consent

[108] Through much of the evolution of the February 25 injury, Mr. Malinowski generally followed the directions of Alberta Construction Joint Venture safety staff. Immediately after the injury he sought help from the first aid trailer. The following day, immediately on his return to the workplace, he again reported to the first aid trailer and reported he was unable to work. He followed the instructions of the safety officers and nurses, both in on-site treatments and in attending Dr. Schneider's office.

[109] Dr. Schneider argues that Mr. Malinowski's compliant response to the instructions of the workplace safety officers and medical professionals indicates that Mr Malinowski would essentially have 'followed orders' and undergone chiropractic treatment even if he had been properly informed on the risks of chiropractic adjustment. Arguably, that would mean that any defect in Dr. Schneider's disclosure of the nature of the proposed chiropractic treatment, its risks, and alternatives, was irrelevant.

[110] I reject that proposition. I note first that 'patient-centred' healthcare requires that a patient ultimately be the person responsible for their own health-care choices: *Fleming v. Reid*; *Ciarlariello v. Schacter*. If someone else interfered with that freedom to choose, then it is not the patient's fault that an injury followed as a consequence of treatment. Arguably, if Mr. Malinowski's employer was the one who led him to engage in medical treatment that would

otherwise have been avoided, then it is that employer who is also a tortfeasor who caused Mr. Malinowski's injury. That, however, does not discharge Dr. Schneider's obligation to his patient. Tort law principles make anyone who was negligent and contributed to an injury liable in full for that injury.

[111] As I discussed above, one obligation of a health care professional is to evaluate whether their patient had been forced by a third party into a treatment which the patient did not want. I concluded Dr. Schneider had not met that standard, and he cannot shelter his negligence behind the actions of another tortfeasor. On that basis I conclude that, even if Mr. Malinowski's decision to accept chiropractic treatment had been the result of influence by his employer, that influence is irrelevant in evaluating whether or not Mr. Malinowski would have accepted the chiropractic treatment recommended by Dr. Schneider.

E. Diagnosis and Treatment

[112] On February 26 and 27, 2002, Dr. Schneider met with Mr. Malinowski, diagnosed his condition, and administered chiropractic treatments. This process can be broken into three elements. In each, Dr. Schneider owed Mr. Malinowski a duty of care:

1. to correctly diagnosis Mr. Malinowski's injury,
2. to identify an appropriate treatment for Mr. Malinowski's condition, and
3. to apply any selected treatment in a technically correct manner.

Dr. Schneider had these duties in both the first and second visits.

[113] Mr. Malinowski alleges that Dr. Schneider failed to meet the necessary standard of care in all three steps. As I discuss in more detail below, I have concluded that the adjustments performed on February 26 and 27 were likely conducted in a technically correct manner. However, the first two steps in the process are problematic.

1. Diagnosis of Mr. Malinowski's Condition

[114] Dr. Schneider had a duty of care to correctly evaluate and diagnose Mr. Malinowski's condition at both visits. While I will evaluate each of these visits separately, I note the diagnosis process involves a number of potential steps:

1. obtain information that will assist in the diagnosis, which may include an interview with the patient, review of the patient's medical history, observation of the patient, and conducting tests on the patient,
2. evaluation of whether other sources of evidence are necessary to make a diagnosis, and

3. if adequate evidence is available to make a diagnosis, correctly identify the nature of the patient's condition.

- a. *Evidence*

- i. The February 26 Visit

[115] Given the parties' very limited recollection of the visits, as detailed earlier in this judgment, Dr. Schneider explained his usual new patient examination procedure in 2002. First, the receptionist and patient filled out a "health history form" that documents the patient's health background and the location and intensity of the pain.

[116] This material was reviewed by Dr. Schneider, who then interviewed the patient. If the patient was unfamiliar with chiropractic, Dr. Schneider briefed them on the profession, its standards and techniques. The patient was asked to explain his current status, the history and location of his possible injury, and its apparent origin. Dr. Schneider then interviewed the patient to expand on the health history form information, and developed a more a detailed medical history: information relating to surgeries, serious injuries, accidents, family illnesses, medication, and stress.

[117] The more active part of the examination procedure then followed. The patient would be asked to engage in various movements, and Dr. Schneider recorded posture data and the range of possible motion. Dr. Schneider then also tested for nerve root dysfunction with reflex tests, investigation of lumbar nerve based muscle control, and evaluation by touch and pain sensations in the lower body.

[118] Dr. Schneider then reviewed his observations and identified the "primary diagnosis", what he thought was the most likely explanation for the patient's condition. If the tests had not eliminated one or more alternative explanations, then these less likely alternatives were "differential diagnoses". Dr. Schneider then explained the primary diagnosis and any differential diagnoses to the patient. As detailed in my analysis on informed consent, Dr. Schneider then explained alternative treatments, including drugs (anti-inflammatory medication, muscle relaxants, analgesics) and surgery, and their associated risks.

[119] Treatment followed if the patient consented. Post-treatment, WCB patients (such as Mr. Malinowski) and Dr. Schneider collaboratively developed work recommendations.

[120] Dr. Schneider testified that his notes indicate he diagnosed Mr. Malinowski as having a sacroiliac joint sprain, with one differential diagnosis, that being lumbar intervertebral disc protrusion. His notes emphasized that certain elements of the tests were particularly relevant to his diagnosis, and that he had discounted the probability of disc injury due to the absence of neurological deficit, which would be characterized by certain "specific symptoms such as

reproducible leg pain, aberrations in reflex, deep tendon reflex, changes in muscle control in the leg ... and positive disc challenging tests such as the straight leg raise or Valsalva.”

ii. The February 27 Visit

[121] As Dr. Schneider did not have any recollection of his examination and treatment of Mr. Malinowski on the following day, he explained his usual procedure for a subsequent visit. It involved a more limited examination, an “interactive reassessment”. Dr. Schneider first inquired as to the patient’s response to treatment and his present condition.

[122] Notes were often restricted to “SALT” (“sore after last treatment”), and BALT (“better after last treatment”). The patient would be asked about whether he had used other treatments, taken medication, visited other medical services, and experienced issues with any recommended WCB work program. Dr. Schneider would then explain his current evaluation of the patient’s injury and progression.

[123] The interactive reassessment involved only a limited physical examination. Dr. Schneider testified that, with a patient exhibiting Mr. Malinowski’s symptoms, he would determine fixation patterns, conduct motion and static palpitations of the spine and sacroiliac joint, and lift the patient’s legs up and down. Dr. Schneider explained that what followed would depend on whether the patient’s condition seemed the same as or different from the last examination:

If there were no changes from the initiating presentation, I would not repeat all the neurological examination or the orthopaedic examination. I would proceed with treatment that I had prescribed earlier. ... I would in the absence of any newly reported symptoms or in the absence of any deterioration of symptoms, if the condition stayed the same, I wouldn’t do a full reexamination again.”

[124] Reviewing his notes, Dr. Schneider explained that on the second visit Mr. Malinowski reported he still felt sore, but had been better after the first treatment. Mr. Malinowski had taken over-the-counter medication, though the specific kind of medication was not recorded. Dr. Schneider inferred from the absence of a re-examination that Mr. Malinowski did not complain of any new pain, or that Mr. Malinowski’s condition had deteriorated.

[125] Dr. Schneider commented on a number of aspects of his diagnosis and treatment of Mr. Malinowski. Dr. Schneider denies he would have considered treating any of Mr. Malinowski’s lumbar vertebrae, as palpitation of that region did not identify a requirement for treatment in that area. He acknowledged he had a duty to do neurological examinations and to determine whether Mr. Malinowski had any neurological impairment or damage. That said, Dr. Schneider explained during cross-examination that the February 27 examination was adequate as a patient with disc injury or worsening condition would have reported symptoms such as sciatica (leg pain).

[126] Last, Dr. Schneider was asked about the circumstances under which he would have referred Mr. Malinowski to WCB medical personnel for a MRI examination. Dr. Schneider explained:

If Mr. Malinowski had demonstrated any physical signs under examination or neurological signs I would have done that.

iii. Conclusion

[127] I conclude that Dr. Schneider's reconstruction of the February 26 and 27 visits is essentially accurate. I heard no evidence that suggested atypical developments or aspects that might have led Dr. Schneider to depart from his usual practice. In reaching that conclusion I note the strong correlation between Dr. Schneider's notes of those visits and his explanation of his usual practices.

[128] The one point where I conclude that Dr. Schneider's notes have limited probative value is in relation to the "SALT" and "BALT" notations in the February 27 notes. While Dr. Schneider's notes would suggest that Mr. Malinowski's condition had improved following the February 26 chiropractic adjustment, that is inconsistent with Mr. Malinowski's inter-treatment condition as reported by Mr. Malinowski and others. If Mr. Malinowski was indeed "Better After the Last Treatment", then I conclude, as Mr. Malinowski testified, that his improved condition lasted only a short period after the adjustment. Afterwards the pain and dysfunction rapidly resumed.

b. Standard of Care - Expert Testimony on Diagnosis

[129] On certain points all experts agreed. There is no question that Dr. Schneider's primary diagnosis of sacroiliac joint sprain was incorrect, and that Mr. Malinowski's actual injury was the differential diagnosis: an injury to a lumbar region intervertebral disc.

[130] Similarly, the experts do not dispute that Dr. Schneider had a duty to take appropriate steps to investigate Mr. Malinowski's injury and then make a correct diagnosis. He was obviously unsuccessful on the second aspect, but the question is whether the investigation and diagnosis were reasonable.

i. The February 26 Visit

Dr. Carstensen

[131] Dr. Carstensen stressed that accurate diagnosis is the key to treatment, and that detailed and careful review of reported symptoms and physical test results are a necessary foundation for appropriate treatment. He noted that medical imaging technologies (MRI, CT scans, x-rays) are useful in diagnosis of intervertebral disc protrusion or extrusion. These techniques are not ones that are performed by chiropractors in Canada, nor are chiropractors taught to interpret that kind

of data. Dr. Carstensen indicated that medical imaging techniques are helpful in diagnosis, but are optional and would not be reasonably required prior to making a diagnosis in this case. Dr. Carstensen did not criticize the diagnostic tests and methodology used by Dr. Schneider during the first visit.

[132] However, Dr. Carstensen concluded, from the evidence he reviewed, that the tests used by Dr. Schneider could not exclude the possibility of a disc injury and confirm sacroiliac joint injury. In his opinion, Dr. Schneider's differential diagnosis was appropriate, though his working diagnosis was problematic. Specifically, Dr. Carstensen observed that disc injury was a more likely cause of the observed symptoms based on Mr. Malinowski's age, physical stature, the physical requirements of his job, the circumstances of the injury, the reported bilateral pain symptoms, and the results of the "seated straight leg distraction" and "range of motion" tests.

[133] Thus, Dr. Carstensen did not conclude that Dr. Schneider's diagnostic methodology was improper, nor did he specifically conclude that Dr. Schneider had not met the required standard of care in reaching the incorrect diagnosis.

Dr. Kumar

[134] Dr. Kumar did not conclude that Dr. Schneider had failed to meet the required standard of care during the February 26 examination. However, Dr. Kumar was more critical of the conclusions Dr. Schneider drew from his examination of Mr. Malinowski.

[135] Dr. Kumar commented on Mr. Malinowski's symptoms and Dr. Schneider's diagnosis during the first meeting and emphasized that the bilateral leg pain was an indication of intervertebral disc injury, an association correctly identified by Dr. Schneider. Mr. Malinowski's responses to the tests administered at the first visit were consistent with a lumbar spine injury rather than a sacroiliac joint sprain. Further, Dr. Kumar noted that the nature of the injury (heavy loading while bent over) was a common cause of intervertebral disk injury, and that the described symptoms of the injury ("lightning"-like pain that extended into both legs) were typical of an intervertebral disc injury rather than a sacroiliac joint sprain. Dr. Kumar concluded that, if Dr. Schneider had failed to appreciate the significance of these facts, he did not meet the appropriate standard of care, particularly in relation to the combination of the straight leg raising test result and Mr. Malinowski report of very extreme pain.

[136] Dr. Kumar criticized Dr. Schneider's failure to refer Mr. Malinowski for further diagnostic tests. Dr. Kumar concluded that CT scan and MRI examination were required to definitively assess the injury. He also concluded that duty to refer would arise if Mr. Malinowski's condition did not improve following two to three days of bed rest.

Dr. Henderson

[137] Dr. Henderson concluded that the February 26 examination met the required standard of care. He explained that a chiropractic examination has two stages. First a chiropractor establishes

a background and investigates the history of the patient, the injury, what aggravates or relieves the dysfunction, and the apparent source of the dysfunction. Once a history is developed, the chiropractor then conducts an active investigation of the patient, using various orthopaedic, neurological, and sensory tests. The passive range of movement is investigated to determine whether the patient's ability to move has been restricted. Dr. Henderson concluded that Dr. Schneider had "followed the normal process" to diagnose a patient such as Mr. Malinowski, and that he had met his standard of care in that respect.

[138] In his expert reports, Dr. Henderson does not comment on Dr. Schneider's incorrect diagnosis of Mr. Malinowski, other than to confirm "the chiropractic care and treatment ... were provided in a manner that met the standard of knowledge, skill and care expected of an average reasonable chiropractor practicing in Canada in 2002." Interestingly, that conclusion relies at least in part on Dr. Henderson's conclusion that Mr. Malinowski could not really have been experiencing severe pain (the reported '9 out of 10') as the range of motion and flexibility recorded in the first visit indicate a patient experiencing less extreme discomfort, and that supports Dr. Schneider's conduct. I find this extrapolation difficult, in that witnesses describe Mr. Malinowski as being badly disabled by February 26. Dr. Schneider himself recalled that Mr. Malinowski required the assistance of two men to enter his clinic.

ii. The February 27 Visit

Dr. Carstensen

[139] Dr. Carstensen commented on the duty of care of a chiropractor during subsequent visits. In evaluating the diagnosis that preceded the second treatment, Dr. Carstensen highlighted the fact that disc injury can be aggravated by chiropractic procedures, and that a treating chiropractor should be sensitive to the possible emergence of more serious conditions. Instead, Dr. Schneider conducted a more limited investigation into Mr. Malinowski's condition.

[140] He concluded that, when following up a potentially dangerous treatment, a chiropractor should do more than monitor progress, but also watch for warning signs of the more serious injury. Further tests that are effective in testing for an alternative diagnosis are mandatory where that alternative diagnosis involves intervertebral disc issues, rather than sacroiliac sprains. Dr. Carstensen concluded Dr. Schneider breached his duty of care by conducting an inadequate assessment of Mr. Malinowski's post-treatment condition during the February 27 visit.

Dr. Kumar

[141] In relation to the February 27 appointment, Dr. Kumar was concerned that Dr. Schneider did not take any steps to re-evaluate his diagnosis, or investigate the risk of injury to the lumbar intervertebral discs. This omission is particularly worrisome as Dr. Schneider had realized that Mr. Malinowski's symptoms could be caused by nerve irritation as a consequence of a disc protrusion.

[142] Dr. Kumar stressed that repeated treatments are inappropriate where a patient's condition has worsened: "[i]f he deteriorates, then following it with another manipulation is a mistake." Going to a chiropractor and having a manipulation "... would be adding insult ...", "... this is the time when the manipulations should be avoided."

[143] On cross-examination Dr. Kumar acknowledged he had assumed no re-examination had occurred, as none was recorded in Dr. Schneider's notes. However, if the notes accurately represented the extent of Dr. Schneider's February 27 examination of Mr. Malinowski, Dr. Kumar concluded that too was a breach of Dr. Schneider's standard of care. Here Dr. Kumar's conclusion is relevant, as Dr. Schneider was clear that the February 27 visit did not involve a new neurological diagnostic examination but rather only an "interactive reassessment".

Dr. Henderson

[144] Dr. Henderson concluded that the February 27 examination met the required standard of care. He explained that an abridged examination, the "interactive assessment" was acceptable, and would meet the requirement for a "minimal reassessment". Dr. Henderson was cross-examined at length on that conclusion, and its underlying assumptions. It emerged that Dr. Henderson had assumed, again, that Mr. Malinowski's condition was comparatively good at the time of the second examination. When asked whether a more detailed review of the patient's neurological state was appropriate, Dr. Henderson responded:

... if there were a worsening or progression of signs and symptoms and outside of the interactive assessment there were signs and symptoms that Dr. Schneider elicited from the patient during, you know, the SOAP procedure, I would agree with that, but that was not the case. Mr. Malinowski presented on the second visit basically saying he was sore, not painful. He was able to, as I read from the examination for discovery, he was able to move about. [Emphasis added.]

[145] Dr. Henderson's 218.1(1) Statement includes excerpts from Mr. Malinowski's examination for discovery, including a passage that describes Mr. Malinowski's condition on February 27, prior to his treatment:

The next morning [Mr. Malinowski] got dressed with his father's assistance. He felt the pain was worse and was bent over. On the bus to work, he lay on the floor and was helped out of the bus by his father and others to the safety office and slept until he was taken by the safety guys to Dr. Schneider's office.

In short, Dr. Henderson appears to have rejected Mr. Malinowski's description of his pre-treatment February 27 condition, yet he offered no explanation beyond his interpretation of two four-letter acronyms entered in Dr. Schneider's notes.

[146] During cross-examination Dr. Henderson was challenged on whether the "interactive assessment" was adequate in the face of a potentially severe injury. Dr. Henderson agreed that, if

a chiropractor knew it was possible an adjustment could cause a severe injury, such as CES, then that chiropractor should look to see if that kind of injury had occurred. He also agreed that chiropractic manipulation is inappropriate for patients who exhibit aggravated neurological issues.

[147] On several occasions Dr. Henderson implicitly indicated that an interactive assessment was an inadequate basis to determine the presence of neurological issues.

Question: But at least a neurological examination and tests are required in order to determine whether or not the patient has neurological damage?

Answer: Yes.

...

Question: Now, would you agree with me that in order to determine whether or not a patient has developed severe or progressive neurological deficit, it would be necessary to do a neurological examination and test?

Answer: Yes.

[148] Dr. Henderson acknowledged certain neurological tests were not conducted on February 27: “No, he didn’t do the reflex testing and sensory, no.” Yet, when challenged on the scope of the February 27, pre-treatment investigation, Dr. Henderson was resistant to the suggestion that a complete neurological examination was necessary and appropriate, and instead argued that simple observation of a patient’s movements when walking or sitting provided much (and implicitly all) relevant information. Yet that conclusion conflicts with Dr. Schneider’s memory of Mr. Malinowski being assisted into his clinic on February 26, and Mr. Malinowski’s reports of his progressively deteriorating condition.

c. Standard of Care - Analysis of Diagnostic Procedures and Result

[149] The essential question is whether Dr. Schneider met the required standard of care when he examined and diagnosed Mr. Malinowski. The February 26 and 27 examinations involve different circumstances for those steps.

i. February 26 - Diagnostic Examination

[150] The experts agree that the procedure Dr. Schneider used to examine Mr. Malinowski on February 26 was appropriate. Dr. Schneider conducted a review of Mr. Malinowski’s medical history, a spectrum of tests to evaluate his current condition, and took detailed notes of the results. I concur that Dr. Schneider was not negligent when he conducted the February 26 examination.

ii. February 26 - Referral for Other Diagnostic Testing

[151] The experts agreed that the testing regime used by Dr. Schneider did not require immediate referral of Mr. Malinowski for other diagnostic tests. I conclude Dr. Schneider did not breach his requirements on that point.

iii. February 26 - Diagnosis of Sacroiliac Sprain

[152] All three experts agreed that the two alternative diagnoses, lumbar intervertebral disc injury and sacroiliac joint sprain, were the reasonable alternatives that should have been identified by Dr. Schneider based on the results he obtained from his February 26 examination of Mr. Malinowski's. The opinions diverge, however, on the implications of Dr. Schneider's conclusion of sacroiliac joint sprain as the *more probable* injury. Dr. Henderson appears to conclude that Dr. Schneider's diagnosis, though ultimately recognized as incorrect, nevertheless was a reasonable one and met the standard of care. Dr. Carstensen opined that Dr. Schneider should have recognized that an intervertebral disc injury was the more likely cause of Mr. Malinowski's condition, but Dr. Carstensen did not identify this different conclusion as Dr. Schneider breaching his duty of care. Dr. Kumar took a more critical position and concluded that Dr. Schneider had not met his standard of care. Dr. Schneider failed to properly weigh certain indicia, specifically the straight leg test and Mr. Malinowski's reports of extreme pain, which should have alerted Dr. Schneider that the injury more likely involved a lumbar intervertebral disc.

[153] I prefer the opinion of Drs. Carstensen and Henderson on this point. While I have concluded above that Dr. Kumar's opinion on standard of care was relevant, I nevertheless prefer the evidence of the two chiropractors, as specialists in their field. Also, I conclude that Dr. Kumar's opinion on this point should be viewed in the overall context of Dr. Kumar's recommendations for Mr. Malinowski's treatment, which was to wait and see how Mr. Malinowski's condition developed in the first few days post-injury. Put another way, Dr. Kumar's opinion is essentially that Dr. Schneider's conclusion was *premature*, rather than *wrong*.

[154] I also note that diagnosis of lower spinal injuries does not seem to be a simple process. Rather, patients with different spinal dysfunctions may present a wide variety of symptoms that can both vary and overlap. Later in this judgment I review the comments of the many medical experts who testified in relation to the cause of Mr. Malinowski's CES injury. Notably, these experts were unable to formulate a simple test to differentiate lumbar intervertebral spine injuries. The definitive method to identify intervertebral disc injury is imaging of the suspect region using MNR or CT technologies. None of the experts testified that Dr. Schneider should have immediately referred Mr. Malinowski for either of those procedures.

[155] I conclude Dr. Schneider did not breach the standard of care for a chiropractor practicing in 2002 when he incorrectly concluded that Mr. Malinowski was more likely suffering from a sacroiliac joint injury, rather than a lumbar intervertebral disc injury.

iv. February 27 - Diagnostic Examination

[156] Dr. Schneider's re-evaluation of Mr. Malinowski's condition is problematic. There is no question that Dr. Schneider's "interactive assessment":

1. omitted elements of the initial February 26 examination, particularly those that assessed Mr. Malinowski's neurological condition,
2. was not intended to further clarify the character of Mr. Malinowski's injury, as either a sacroiliac joint sprain or a lumbar intervertebral disc injury, and
3. only incompletely tested for the possible emergence of more serious dysfunction and injury.

[157] Dr. Carstensen and Dr. Kumar testified that the standard of care of a chiropractor required the chiropractor to conduct a thorough medical examination when faced with a patient who had been treated but had not apparently improved. That was not how Dr. Schneider responded to Mr. Malinowski's unimproved or debilitated condition on February 27.

[158] A chiropractor should be expected to conduct his or herself in the same manner as any professional; apparent failure should be followed by careful re-evaluation. A professional faced with an unexpected result is expected to step back and think, not blindly proceed.

[159] Dr. Schneider's failure is aggravated by two related factors. First, Dr. Schneider had an alternative possible explanation for Mr. Malinowski's injury. Yet, in the face of an apparently unsuccessful result from the February 26 treatment, Dr. Schneider took no steps to test whether his alternative explanation had, in fact, been correct. Second, Dr. Schneider acknowledged that an intervertebral disc injury could be aggravated by a chiropractic adjustment, and that disc injuries can lead to CES, an extremely serious condition; but Dr. Schneider took no steps to determine whether he had caused just such an injury on February 27.

[160] Dr. Henderson's opinion on this issue was internally inconsistent and I give it no weight. Dr. Henderson acknowledged Mr. Malinowski was at risk of extremely serious injury and that Dr. Schneider's re-evaluation was incomplete, both to evaluate the risk of further injury and to test Mr. Malinowski's possible deterioration. The failure by a chiropractor or any medical professional to investigate for injuries that are a known possibility of an incorrect diagnosis and treatment is a very serious breach of that chiropractor's duty of care. I conclude that is precisely what Dr. Schneider did, in not conducting a thorough re-evaluation of Mr. Malinowski on February 27.

v. February 27 - Referral for Other Diagnostic Testing

[161] Dr. Kumar indicated that it was a further breach of Dr. Schneider's standard of care to not refer Mr. Malinowski for diagnostic imaging to clarify the nature of his injury. Neither of the

other experts took that position. Dr. Kumar made that referral conditional: first, that Mr. Malinowski had spent 2 to 3 days resting, then had undergone physiotherapy, and that his condition had not improved during that time. That is a different scheme of treatment than was adopted by Dr. Schneider, and so Dr. Kumar's conclusion is hypothetical and not relevant.

vi. February 27 - Diagnosis of Sacroiliac Sprain

[162] Dr. Schneider appears to have presumed on February 27 that Mr. Malinowski's injury was a sacroiliac joint sprain, and then proceeded to treat that kind of injury with chiropractic adjustments. I have concluded that, when faced by an apparently unsuccessful initial treatment, Dr. Schneider was negligent in not re-examining Mr. Malinowski to test his initial diagnosis. Logically, it was equally negligent for Dr. Schneider to at this point conduct another chiropractic examination on the basis of his initial and now suspect diagnosis.

2. The Choice of Treatment for Mr. Malinowski's Condition

[163] A second point on which Dr. Schneider may have failed to meet his standard of care was in the manner in which he chose to treat Mr. Malinowski's condition. On this point the issue is not whether Dr. Schneider chose an appropriate response for Mr. Malinowski's actual injury, a lumbar intervertebral disc injury, but rather whether Dr. Schneider's choice of treatment was appropriate for a patient who had been diagnosed in the same manner: probably a sacroiliac joint sprain, with a lower probability alternative of lumbar intervertebral disc injury.

a. Evidence

[164] There was no dispute as to what Dr. Schneider did: he performed chiropractic adjustments during both the February 26 and 27 visits. While Dr. Schneider had no recollection of the treatments, I am satisfied his notes provide an adequate basis on which to conclude how Mr. Malinowski was treated.

[165] Dr. Schneider testified that the procedures recorded in his notes were the usual approach he would take for a sacroiliac joint injury, with a differential diagnosis of lumbar intervertebral disc injury. First, he would use electro therapy to relax the muscles in the target area and reduce pain. Then he would perform a SMT adjustment. In Mr. Malinowski's case the first and second adjustments were the same, but different electro therapies were performed on the two visits.

[166] Mr. Malinowski's incomplete recollection of the events is essentially consistent with Dr. Schneider's reconstruction of the treatments.

b. Standard of Care - Expert Testimony on Choice of Treatment

[167] The chief disputed point among the experts was whether Dr. Schneider met his standard of care by conducting a chiropractic adjustment on either February 26 or 27, or whether an alternative approach would have been preferable.

i. Dr. Carstensen

[168] Dr. Carstensen commented on the appropriate response to the diagnosis that a patient most likely had a sacroiliac strain, with a lower probability of a lumbar intervertebral disc injury. He noted that joint manipulation was not the only possible recourse. Other useful treatments for sacroiliac joint injury include rest, heat, electrical current stimulation, rehabilitation exercises, and a sacroiliac support belt. A patient might be referred to a physiotherapist or doctors for other treatments. Furthermore, joint manipulation was not the only potentially useful chiropractic technique. Other options include the Cox technique, the sacro-occipital technique, and the activator technique.

[169] In Dr. Carstensen's opinion, spinal manipulative therapy was not immediately necessary, and he favoured a more cautious approach that would have used manipulative therapy as an alternative after the character of the injury was better understood. That was a risk reduction process. Nevertheless, he agreed that spinal manipulative therapy was not an inappropriate therapy for sacroiliac strain, as spinal manipulative therapy usually yields positive results.

[170] Dr. Carstensen concluded that a chiropractor's standard of care generally requires a chiropractor consider the potential requirement for further diagnostic procedures, and the use of alternative therapies and techniques, including non-chiropractic approaches. Where a sacroiliac joint injury had been diagnosed, Dr. Carstensen concluded that the standard of care required consideration of other techniques besides joint manipulations, and whether immediate treatment of the sacroiliac joint injury might be achieved by a suitable alternative. That would provide time to obtain further information and clarify the diagnosis to ensure the patient was not put at risk.

[171] Dr. Carstensen concluded that Dr. Schneider had breached his duty of care in a number of ways by performing diversified spinal manipulation therapy where he had concluded there was a risk of lumbar disc injury and CES, when there were alternative therapies that might be used that did not create that risk. Chiropractic treatment was not excluded as a treatment, but should not have been applied until other less risky alternatives had proven ineffective.

ii. Dr. Kumar

[172] Dr. Kumar opined that the appropriate response to Mr. Malinowski's symptoms was to:

1. order two to three days of bed rest and analgesics, followed by physiotherapy;
2. if his condition did not improve, then Mr. Malinowski should be referred to a physician for investigation by medical imaging and perhaps surgery; and
3. to advise Mr. Malinowski of the symptoms of CES, and to instruct Mr. Malinowski to immediately seek emergency medical treatment if those symptoms arose.

[173] He concluded that, if this approach been followed, the disc protrusion would have probably reversed without surgery, and Mr. Malinowski's condition would have resolved. Mr. Malinowski would have returned to work within 1 to 3 months (with bed rest and physiotherapy) or 4 months (with surgery).

[174] Dr. Schneider's choice of treatment, where there was the possibility of intervertebral disc injury, also did not meet the required standard of care as Dr. Schneider should have known that rotational loading of the spine, such as occurs during spinal manipulations, can aggravate an existing disc injury and cause disc extrusion or sequestration, which in turn can result in permanent nervous system damage, including CES. CT and MRI investigations were required by severe or progressive neurological defects to clarify the nature of Mr. Malinowski's injury. On this point Dr. Kumar did not seem entirely consistent, as in cross-examination he agreed that "... Mr. Malinowski first had signs of severe or progressive neurological deficit when he called 911 when he had numbness in his legs ...".

[175] Dr. Kumar concluded that the second chiropractic manipulation was a more serious error, as he stressed that it is inappropriate to repeat a treatment where a patient's condition has worsened.

iii. Dr. Henderson

[176] Dr. Henderson testified that SMT chiropractic adjustment was an appropriate response to Mr. Malinowski's condition. Electro-therapy that precedes chiropractic adjustment was described as almost universal. Dr. Henderson testified that chiropractic adjustment can be performed where a lumbar intervertebral disc injury is suspected, or where a chiropractor intends to treat a lumbar intervertebral disc injury, provided there is no evidence of neurological deterioration, CES, circulatory dysfunction, osteoporosis, or arthritis. A chiropractor should refer a patient to a physician if the patient has changes in reflexes, sensory dysfunction, muscle weakness, neurological involvement, or nerve root compression. Any patient with CES symptoms should be immediately referred to a hospital for surgery.

[177] Dr. Henderson emphasized that SMT is a typical response to lower back pain, and that the majority (60-80%) of lower back pain patients have intervertebral disc problems and are treated with SMT. He testified that personally he makes adjustments for over 80-90% of his patients. However, chiropractic adjustments were acknowledged as a potential source of risk. Dr. Henderson confirmed the standard of care for any chiropractor includes knowledge that an injured intervertebral disc could be aggravated by a chiropractic adjustment, though in 2002 there was no known (or negligible) risk of CES from sacroiliac joint adjustments. Dr. Henderson testified that the chiropractic profession does recognize, in relation to lumbar disc injury, that there is potentially some interrelationship between chiropractic procedures and CES. He quoted the Glenerin Guidelines: the possibility of CES "... does stress the need for particular care in this susceptible subgroup of patients." Dr. Henderson minimized the threat of this kind of injury and, while he agreed Dr. Schneider was aware of the risk of chiropractic adjustments leading to CES,

he indicated that the risk of CES resulting from a sacroiliac joint adjustment was “not very likely” for “biomechanical reasons”.

[178] Dr. Henderson disagreed with Dr. Carstensen and Dr. Kumar on whether Dr. Schneider’s standard of care required postponing chiropractic treatment until after several days of bed rest. Instead, Dr. Henderson opined bed rest is only ordered as a preliminary step if the “patient cannot walk, function whatsoever and has intention (sic) pain.” Dr. Henderson had difficulty in providing a satisfactory answer as to why bed rest was inappropriate. He defined chiropractic treatment as “conservative”, so that chiropractic is grouped with Dr. Kumar’s bed rest category of therapies. That is not how Dr. Kumar defined a “conservative therapy”. Dr. Henderson’s preference for immediate chiropractic treatment might perhaps be best expressed as an ‘ideological position’. “I think in chiropractic, we try to minimize the rest aspect and encourage the activity ...” He cited an early 1990’s Lancet article which indicated that for lower back pain chiropractic is preferable to treatment by medical physicians, and stated “... it was attributed to a direct approach to the problem as opposed to an indirect approach and medication and bed rest.” I note this “direct” vs. “indirect” dichotomy had apparently nothing to do with the efficacy or safety of the procedure.

[179] The ‘ideology of activity’ might be a matter more of ‘style’ between two equally reasonable alternatives, were it not for the question of risk. Dr. Henderson agreed that chiropractors’ standard of care requires any chiropractor to weigh the benefits of proposed treatment against the potential risks, no matter how rare. He also agreed that CES was a very severe outcome, “[m]aybe even worse than death...”.

[180] Yet, when asked during cross-examination to balance the benefit of a sacroiliac joint adjustment, against the possible CES consequence of an aggravated, misdiagnosed intervertebral disc injury, Dr. Henderson essentially refused to respond. That led to the following exchange during cross-examination:

Answer: You asked me how [Dr. Schneider] was guided, and I’m telling you how he was guided. He considered that there might have been a disc protrusion, so he took a more conservative approach by adjusting the sacroiliac joints, which did not involve rotation. We can go through that again. But he didn’t adjust the area of the protrusion, so he gave consideration to it.

Question: Well, didn’t you understand that his diagnosis was [sacroiliac] joint sprain and that ...

Answer: I understood that, yes.

Question: But he was convinced it was [a sacroiliac] joint sprain?

Answer: Correct.

Question: And that's why [he] decided to treat the [sacroiliac] joint sprain?

Answer: But he also threw in the provisional diagnosis as the differential, the L3-4 segment, and he didn't adjust that. Had the patient come in and not had [sacroiliac] joint dysfunction and had he found lumbar joint dysfunction, he might have gone ahead and adjusted the lumbar spine. He didn't do that. He had two considerations, and he chose the one that was the – you know, the least injurious, I guess, in retrospect, to this patient's back.

[181] This statement, if representative of the chiropractic community, is a quite extraordinary indication of the preference to treat (“activity”) rather than allow “the rest aspect”. Not only did Dr. Henderson conclude Dr. Schneider was correct to immediately treat Mr. Malinowski, but his choice of treatment was appropriate, not on the basis of the *probability* that Mr. Malinowski had a sacroiliac joint sprain, but instead as that diagnosis would *cause less injury*. This for a dysfunction that Dr. Kumar testified (and I accept) usually resolves without treatment.

c. Standard of Care - Analysis on Choice of Treatment

[182] I conclude that the standard of care for a chiropractor in Canada in 2002 required a chiropractor treating a person with a possible intervertebral disc injury not conduct spinal manipulation until that patient rested for two to three days. An ‘ideology of activity’ is not a basis for a medical professional to engage in therapy which brings with it the risk of serious injury, when bed rest and analgesics might resolve the dysfunction and pain without a corresponding risk of injury.

[183] While this was the opinion of Drs. Carstensen and Kumar, this conclusion is not so much derived from medical principles as common sense. A responsible medical professional prefers the alternative therapy which offers the best ratio of benefit to risk. Here, that preferred first therapy is the one which usually addresses injury, and offers no risk at all.

[184] I conclude that Dr. Schneider did not meet his standard of care by immediately proceeding to treat Mr. Malinowski via chiropractic adjustment without first having recommended a period of rest in which Mr. Malinowski's status might resolve.

[185] This conclusion does not mean chiropractic has no role in the treatment of lower back injury and dysfunction. The specialized knowledge of spinal injuries and their associated characteristics and symptoms allow chiropractors to diagnose injuries with complex characteristics, and recommend appropriate responses, be they medical, chiropractic, or passive. Where a patient appears and seeks treatment, and explains that bed rest and analgesics have failed to provide assistance, then a chiropractor would have no reason to order further bed rest - that treatment option had been explored and proven ineffective. The crucial point is that any recommendation to engage in spinal manipulation should be the result of careful calculation, not an automatic response based on an ideological bias.

F. Was the SMT Therapy Conducted in a Technically Correct Manner for a Sacroiliac Joint Sprain?

[186] As noted above, Dr. Schneider concluded that Mr. Malinowski had a sacroiliac joint sprain and, accordingly, on February 26 and 27 conducted SMT type adjustments to those joints. There is no question that Dr. Schneider had a duty to conduct those adjustments in a manner which did not breach the standard of care.

[187] Mr. Malinowski recalls few details of his body position and the forces that were applied during the treatments, and was unsure as to whether the diagnostic stage of the examination had ended, and the treatment stage began. Dr. Schneider remembers nothing of the treatments themselves.

[188] Dr. Schneider's usual conduct is relevant. He testified that his notes recorded that he first administered electro-therapy over the sacroiliac joints, and then conducted a SMT adjustment of those joints. Dr. Schneider also testified that, when conducting a diversified technique high velocity and low amplitude adjustment, such as what was recorded in his notes, he may have repeated the adjustment if he did not hear cavitation (a 'snapping' or 'popping' sound) when adjusting the joint.

[189] At trial Dr. Schneider demonstrated the techniques reported in his notes, and that demonstration was recorded on DVD. Other expert chiropractors who reviewed the recorded demonstration did not identify any elements of the demonstrated procedure that they considered inappropriate.

[190] On this basis, I conclude that Dr. Schneider's SMT adjustments of Mr. Malinowski's sacroiliac joints on February 26 and 27 were consistent with the usual techniques used by chiropractors in 2002 to treat a dysfunctional sacroiliac joint. Dr. Schneider's chiropractic adjustment met the standard of care for a chiropractor adjusting an injured sacroiliac joint. Unfortunately, that was not the location and character of Mr. Malinowski's injury.

V. INJURY OR LOSS

[191] There is no doubt that Mr. Malinowski suffered a severe injury and that the CES resulted in significant loss. The issue then is whether Dr. Schneider's actions were the cause of that injury and loss.

VI. CAUSATION

A. Background

1. Spine Anatomical Structure

[192] All experts largely agreed on the anatomical structures and the biological processes that were involved in Mr. Malinowski's injuries. Detailed explanations were provided in the written reports of Dr. Erwin, Mr. Huijbergts, and Dr. Carstensen, and were generally endorsed by the other experts.

[193] The spine is the principal structural support for the vertebrate body. It is a flexible interconnected apparatus of bones, cartilage, connective tissues and muscles that surrounds the spinal cord. The bones that make up the spine are called vertebrae. In this proceeding, the relevant part of the human body is the lumbar region (the five vertebra below the ribcage and above the pelvis), and the sacrum (the fused group of vertebral segments at the base of the spine). The lumbar region is relatively flexible, being the point in the lower spine that bends. In contrast, the sacrum is functionally a single unit, and is part of the rigid pelvis that connects the spine and legs. The sacroiliac joint is point of contact between the sacrum and the ilium pelvic bones, and this junction, the target of Dr. Schneider's chiropractic adjustments, is a mechanically strong structure supported by large ligaments. Force is required to move or affect this inter-bone connection.

[194] The lumbar vertebrae are numbered from top to bottom, the highest vertebra being lumbar vertebra 1 (or L1), and the lowest that connects with the sacrum being lumbar vertebra 5 (or L5). The main bodies of the vertebrae do not contact one another, but are instead separated by intervertebral discs. These discs are named by the vertebrae to which they are adjacent. For example, Mr. Malinowski's injured intervertebral disc was located between the L3 and L4 vertebrae, and thus is the L3-L4 intervertebral disc.

[195] The intervertebral discs between the lumbar vertebra and the lumbar and fused sacrum are flexible, and allow for the various movements possible in the lower spine. The sacroiliac joints have a very different rigid structure. Each intervertebral disc has three primary components:

1. two cartilaginous end plates that form the broad plate-like elements that contact the vertebrae,
2. the annulus fibrosis which forms the 'rim' of the disc, and
3. the nucleus pulposus, a gel-like material enclosed within the end plates and the annulus fibrosis.

[196] The annulus fibrosis is composed of 15-20 nested membranes, each made of collagen, that surround the nucleus pulposus. The outer third of the annulus fibrosis membranes possess sensory nerves that produce pain signals when injured. The nucleus pulposus acts like a "ball bearing" on which the vertebrae shift, and is composed of a proteoglycan material that tends to swell when exposed to water, though that expansion is normally constrained by the intervertebral disc end plates and annulus fibrosis. If any nucleus pulposus material is released from the

intervertebral disc, then that material would expand into a larger size. The nucleus pulposus is not supplied with nerves.

[197] An uninjured intervertebral disc is a structure under internal pressure which can deform to allow the spine to bend. When the disc deforms the material of the nucleus pulposus shifts, and the annulus fibrosis membranes stretch. For example, when a person bends forward at their waist, the disc becomes more wedge-shaped as the nucleus fibrosis materials shift towards their back. The flexibility of the disc also allows it to operate as a ‘shock absorber’ for forces transmitted through the spine.

[198] The spinal cord is associated with and protected by the vertebrae, and is located in the vertebral canal, a space enclosed by the vertebral arch and vertebral body and the associated spinal ligaments and muscles. In adults, the spine is enclosed within the spinal canal above the L1 to L2 vertebrae, with pairs of nerves emerging from the spine and extending into the body. However, below the L1 to L2 vertebrae the spinal canal contains the nerves of the cauda equina. This arrangement is a consequence of the fact that the spinal cord ceases growing before the remainder of the body, and is therefore ‘pulled up’ in the spinal canal as the spine lengthens. As a result, below the end of the spinal cord the spinal canal contains all the nerves that will extend into and control the legs and lower abdomen. This collection of nerves are together known as the cauda equina. The cauda equina nerves are surrounded by a membrane structure known as the thecal or dural sac.

[199] Nerves from the spine connect to specific and predictable regions of the body. This relationship, innervation, means that a medical practitioner can relate nervous dysfunction in a part of a body to particular spinal nerve or nerves. Since nerves follow a predictable path as they connect the spinal cord and the body, nervous system dysfunction in a given body area can imply an injury to a particular region of the spine.

2. Intervertebral Disc Injury

[200] Intervertebral discs are not infrequently damaged, either as a consequence of ‘wear and tear’, aging, traumatic events, or genetic conditions. As people age, the intervertebral disc often loses its elasticity and becomes more fibrous. Stress on the intervertebral disc may result in the annulus fibrosis tearing, allowing the nucleus pulposus to expand outside its normal limits, an event called a “disc herniation”. Intervertebral discs are normally contained within what is called the intervertebral disc space, a region which has its edges defined by the vertebral ring apophyses, raised margins of the round surfaces on the vertebrae. This disc herniation process is often progressive, with one stress event tearing a certain number of the annulus fibrosis membranes, then a later event causing yet more membranes to fail.

[201] When intervertebral discs are damaged, they may undergo protrusion, extrusion, or sequestration. Protrusion is where the intervertebral disc extends beyond its usual area, extrusion has disc material project but remain linked to the disc by a narrower part, and sequestration is where disc material is broken off and expelled. Protrusion is the least severe, and protrusions

may be reabsorbed. That is less likely for an extrusion. Sequestration is a permanent injury. All these steps are usually associated with some failure of the annulus fibrosis membranes. Sequestration requires complete breach of the annulus fibrosis. If any nucleus pulposus material is released from the intervertebral disc, it takes up water and expands into a larger size.

[202] Mr. Malinowski was injured at the L3-L4 intervertebral disc, which the experts agreed was an uncommon kind of disc injury. Dr. Erwin and Mr. Huijbregts estimated that L3-L4 disc herniations are only 2.5% of all lumbar intervertebral disc herniations.

[203] Intervertebral disc injury can cause pain and impairment in a variety of ways. As the outer membranes of the annulus fibrosis have sensory neurons that detect pain, the failure of these membranes is associated with intense pain. Where the disc or disc materials extend outside their normal location they may contact and exert pressure on other structures, such as the spinal nerve roots, and cause pain and inflammation.

[204] The experts did not agree as to the symptoms that would unequivocally indicate an intervertebral disc injury. Dr. Kumar testified that severe limitation in straight leg lift indicated a lumbar disc injury, as did bilateral pain (pain on both the left and right sides of the body). Dr. Carstensen's evidence was similar. He indicated an intervertebral disc injury is more likely with a combination of bilateral pain and impaired straight leg motion. Other motion tests can assist, and the circumstances of an injury may also help a medical professional reconstruct the character of the injury.

[205] Dr. Freeman testified that the Valsalva test is particularly relevant. Mr. Huijbregts stressed that it is the matrix of symptoms and test observations that provides the most definitive cues of intervertebral disc injury, including that an absence of abnormal neurological responses (normal hamstring, patellar, and Achilles tendon reflexes, heel and toe walking, muscle strength tests, and skin sensation test) indicate no nerve root issue and instead suggest that a disc injury is in play. He also stressed the relevance of a straight leg raise when conducted properly.

[206] Dr. Upton disagreed with Mr. Huijbregt's conclusion that a knee reflex and straight leg test would clarify the location and kind of injury as a lumbar intervertebral disc injury, while Dr. Erwin opined that the best indicia for disc injury is change post-injury, with sciatica (pain) radiating down limbs emerging later as affected nerve roots become inflamed. Dr. Erwin stressed the symptoms of a damaged intervertebral disc are highly variable, and often dependant on the progression of the injury.

[207] There is little question that the experts agreed that diagnosis of a disc injury can be a complicated and frustrating exercise, and that perhaps the only definitive test is provided by medical imaging techniques, especially MRI.

3. Cauda Equina Syndrome

[208] One possible result of an intervertebral disc herniation is CES. CES occurs where anomalous material presses on the dural sac, a membrane that surrounds nerves that extend out of the lower spine and then run to the lower abdomen and legs. The anomalous material that causes CES is located in the vertebral canal along with the dural sac, but outside that sac in what is called the extradural space. A number of kinds of anomalous materials may produce CES, most commonly bleeding (hematomas), tumours, and material (the nucleus pulposus) that escapes from an intervertebral discs and into the vertebral canal.

[209] Pressure exerted by the anomalous material leads to inflammation of the cauda equina structures (dural sack, spinal nerves) that experience the anomalous pressure. Once initiated, this process feeds back upon itself as the resulting inflammation creates further pressure on the cauda equina structures. This increasing pressure causes nerve dysfunction and emergence of certain characteristic CES symptoms that involve the lower body regions that are controlled by the cauda equina spinal nerves.

[210] Typically CES results in sexual dysfunction, impeded walking, and loss of or reductions to bladder and bowel control. A highly characteristic and specific symptom of CES is loss of sensation (anaesthesia) to a 'saddle' region in the lower back. The experts agreed that these symptoms are distinctive and very different from those encountered with an lumbar intervertebral disc injury or a sacroiliac joint sprain.

[211] The process that leads to CES involves three steps:

1. an anomalous material appears in the extradural space in the vertebral canal;
2. the anomalous material is caught against the dural membrane, and exerts pressure on the dural sac and the nerves within, causing initial symptoms; and
3. the dural sac and nerves become inflamed and swell, which further increases the pressure against the dural membrane and spinal nerves, which leads to the characteristic bladder, bowel, pain, and saddle anaesthesia symptoms.

[212] The experts did not agree on a key aspect of the progression of CES: how long it takes for the initial pressure by an anomalous material to progress to the characteristic neurological symptoms of CES. I will discuss this issue in detail below.

[213] If untreated, CES may rapidly lead to permanent damage to the cauda equina nerves, and loss of sensation and control of the innervated area in the lower abdomen and legs. All experts agreed that CES is an extremely serious condition, and warrants immediate surgical intervention to address and relieve the pressure on the cauda equina structures. Any diagnosis of CES requires immediate investigation and action.

[214] CES is a quite rare condition, and is clearly an uncommon outcome for lumbar disc herniation. Dr. Erwin indicated that 1-2% of all intervertebral disc herniations lead to CES, while only 0.12% of lumbar intervertebral disc herniations cause CES.

B. Known and Accepted Facts

[215] The medical experts agreed on many aspects of Mr. Malinowski's injuries and the progression of his condition:

1. Mr. Malinowski had an injury to his back on February 25, and that injury involved the L3-L4 intervertebral disc, and not a sacroiliac joint.
2. When Mr. Malinowski was operated upon on March 2, Dr. Broad determined:
 - a) a single breach had occurred in Mr. Malinowski's L3-L4 intervertebral disc, with that breach located generally facing the vertebral canal and cauda equina,
 - b) practically all the nucleus pulposus from the L3-L4 intervertebral disc had been expelled as a single mass into the vertebral canal, and
 - c) the expelled material was recovered at the L3-L4 level of the vertebral canal.
3. The nucleus pulposus for the L3-L4 was in an otherwise healthy state.
4. Mr. Malinowski developed CES symptoms during the period after February 28. There were no symptoms specific to CES reported in visits to Dr. Schneider or Dr. Sawicki.
5. Mr. Malinowski's CES condition was partially treated by surgery, though he experienced permanent impairment.

C. Issues

[216] The experts who testified about how Mr. Malinowski's CES condition was caused provided a range of different explanations on why Mr. Malinowski developed CES. Given the agreed facts, the differences between the experts' conclusions may be reduced to a set of five crucial issues:

- a. Aside from the L3-L4 intervertebral disc injury, what was the condition of Mr. Malinowski's spine?

- b. What is the typical period required for pressure by an anomalous material on the cauda equina and thecal sac to lead to CES symptoms?
- c. When was the nucleus pulposus from the L3-L4 intervertebral disc ejected into the vertebral canal?
- d. Is the force of an SMT to the sacroiliac region never sufficient to aggravate a damaged L3-L4 intervertebral disc?
- e. Is it probable that the L3-L4 intervertebral disc rupture was aggravated by the chiropractic adjustment to the sacroiliac joint?

[217] I will address each of these issues separately, and then use those conclusions to assess the probable cause of Mr. Malinowski's CES.

1. Aside from the L3-L4 Intervertebral Disc Injury, What was the Condition of Mr. Malinowski's Spine at the Time?

[218] Drs. Hoffman and Mandel gave their opinions that Mr. Malinowski's spine was not healthy. Dr. Hoffman indicated that in 2002 Mr. Malinowski showed pre-existing degenerative disc disease at multiple levels. Dr. Mandel suggested that pre-February 25 back pain indicated a pre-existing injury.

[219] These conclusions were rejected by a number of experts for both parties. Dr. Kumar reviewed radiological imagery of Mr. Malinowski's spine from 2002 onward and concluded that the imagery indicated a spine that was normal for a person of Mr. Malinowski's age, and showed no pre-existing degenerative features. He noted that in the CT scan the absence of spurs or pedicles indicated that generally the lumbar and sacral region of Mr. Malinowski's spine was healthy. MRI indicated the intervertebral discs were also in good condition, aside from the disc at the L3-L4 position.

[220] Mr. Huijbregts stresses that, other than the L3-L4 injury, Mr. Malinowski's spine appeared normal post-injury. At trial, Dr. Erwin testified that, from the medical imaging evidence he reviewed, Mr. Malinowski's spine appeared perfectly normal and healthy. Dr. Erwin further observed that, in the 2002 MRI images, the intervertebral discs had an appearance that indicated a high water content, a sign of a healthy, soft and flexible disc.

[221] I conclude that, aside from the L3-L4 intervertebral disc injury, Mr. Malinowski's spine was in a healthy state during February and March, 2002. I prefer the expert evidence for that diagnosis, particularly in light of the expertise of Drs. Kumar and Erwin in evaluating medical imagery of human spine structures and diagnosing abnormalities and injuries via that imagery.

2. What is the Typical Period Required for Pressure by an Anomalous Material on the Cauda Equina and Thecal Sac to Lead to CES Symptoms?

[222] There was some disagreement among the experts as to how rapidly CES symptoms emerge once pressure has been exerted on the cauda equina structures. Dr. Erwin referenced a “seminal” scientific paper, Kostiuik *et al.*, “Cauda equina syndrome and lumbar disc herniation”, (1986) *Journal of Bone and Joint Surgery* 68:386-391, for there being two kinds of CES: one that progresses rapidly, and another where there is a more gradual onset of conditions over weeks to years. Dr. Erwin testified that the timing of CES is difficult to estimate, particularly as it is “impossible of course to track the herniated disc in progress however it is considered that the actual event follows a continuum of gradual disc decline to abrupt massive failure; the latter is not the case with Mr. Malinowski’s CES.” This same paper is cited by Mr. Huijbregts for the proposition that CES typically develops within a relatively short time-span, 6-48 hours. During cross-examination Mr. Huijbregts acknowledged that figure actually was the typical time between the onset of the CES symptoms and surgery, rather than the event that had induced the pressure that caused CES.

[223] These experts therefore commented on the time that elapses between a precipitating event and the emergence of CES symptoms, while here the specific question was how rapidly an anomalous pressure resulted in CES. The opinions of Dr. Erwin and Mr. Huijbregts are therefore of little assistance on this issue.

[224] Drs. Upton and Kumar, however, provided very specific evidence on the time required for pressure on the thecal sac to result in CES symptoms. Dr. Kumar explained that pressure by the anomalous material leads to inflammation of the cauda equina structures (dural sac, spinal nerves) that experience the anomalous pressure. Once initiated, this process progresses as that inflammation itself creates further pressure on the cauda equina structures. This increasing pressure causes nerve dysfunction and emergence of the characteristic CES symptoms, often in a relatively short period of a day or so. A similar period was indicated by Dr. Upton, who observed that once anomalous material begins to press on the cauda equina structures “then, within 12-24 hours there is often a very rapid increase in symptoms and severe problems.”

[225] Dr. Upton’s specialty in diagnosis of neurological injuries and Dr. Kumar’s expertise as a neurosurgeon give their evidence on this point particular weight. I accepted their testimony that CES emerges within a relatively short period of about a day of pressure being exerted on the cauda equina structures.

3. When was the Nucleus Pulposus From the L3-L4 Intervertebral Disc Ejected into the Vertebral Canal?

[226] The defence experts, Dr. Erwin and Dr. Upton, concluded that the nucleus pulposus from the L3-L4 intervertebral disc was ejected into the vertebral canal on February 25, when Mr. Malinowski injured his back moving cable at his workplace. However, Mr. Huijbregts and Dr. Kumar opined that the February 25 injury did not result in the sequestration of the L3-L4 nucleus pulposus but, instead, that result was a consequence of the February 26 and 27 chiropractic adjustments conducted by Dr. Schneider.

[227] The rationales and progressions described by these experts differ in a number of ways. Dr. Upton concluded that it was significant that a single nuclear mass was recovered during surgery, because if the extrusion of nuclear material had been the result of a number of separate injuries or events, then he would have expected a number of smaller masses to be recovered from the vertebral canal. A single mass is unusual, and to recover that kind of mass suggests that the annulus tear was sudden and massive, and that the contents of the intervertebral disc were immediately and nearly totally ejected.

[228] Dr. Upton concluded that the L3-L4 intervertebral disc annulus tore on February 25 when Mr. Malinowski reported a sudden 'lightning' pain while pulling the wires. Based on the kind of pain, the action described as triggering the injury, and Mr. Malinowski's obesity, Dr. Upton concluded the nucleus pulposus from that disc was immediately ejected *en toto* into the intervertebral canal. Dr. Upton explained that, in his opinion, the symptoms described by Mr. Malinowski and Dr. Schneider on February 26 and 27 could be explained as disc injury (including disc protrusion), spinal vertebrae spinal joint injury, or via other causes. It was not CES.

[229] Dr. Upton opined that, during the February 25 to 28 period that followed that material's release, the ejected L3-L4 nucleus pulposus "floated around", until it "settled", causing pressure on the dural membrane, inflammation, then finally CES:

That is to say if I'm correct, My Lady, there's a big disc fragment floating around. This disc fragment eventually finds a home next to the L3-4 disc. It causes problems with the cauda equina because the spinal cord ends at L1, so at the level of the 3-4, you've got essentially nerve roots, and therefore the cauda equina, a bundle of nerve fibres, which are going to be very susceptible to pressure. As a result, if here's a mass pressing on the nerve roots that at that level, we now do have beginnings of a cauda equina syndrome, but of course it has to develop. And it will develop quite quickly once that disc finds a home and settles because the disc will find its level, can't go any lower, will cause compression and the compression will cause swelling, and the swelling will cause increasing neurological symptoms, which in my opinion, is precisely what happened.

[230] Dr. Upton explained that the movement of a sequestered disc mass relates to the shape of the vertebral canal in which it is located. This space is a cone-shaped, and narrows as one moves towards the legs. A sequestered mass will 'drop' until it reaches an area where the narrowness of the canal prevents further movement. This movement is thus a result of gravity and anatomic structure:

And why would it settle down? Well, it would settle down because gravity would tend to make it fall towards the bottom of the back. And the back gets smaller. If you try and push a structure through an ever decreasing tube, it's going to reach a point at which it gets stuck. Well, it reached a point at which it got stuck, which was at the L3-4 level. And that happened, I believe, somewhere on March 1st.

[231] Swelling and CES symptoms then follow. In Mr. Malinowski's case, numbness was first reported on March 1-2, and Dr. Upton concluded CES had begun at that point. Prior to that point "[t]here was a floating disc product and there was a small disc bulge at L3-L4, and there was a massive disc extrusion, but that disc extrusion hadn't settled down." [Emphasis added.] The 'settling' was a relatively recent event:

A large, smooth, extradural mass at the L3-4 level. Well, that's the disc extrusion that I talked about earlier. In my opinion this is settled in there recently, within hours probably. This produces a large central defect of the thecal sac resulting in marked spinal stenosis at this level and the cause of this impression is certain. [Emphasis added.]

[232] The location at which the disc settled was confirmed by the MRI data. Dr. Upton concluded that Dr. Schneider's activities could not have caused the release of the disc material (that occurred prior to the chiropractic treatments), and further could not have caused settling of the sequestered material as, given the rapid progression of CES, the CES symptoms should have emerged at an earlier point.

[233] There is an inconsistency in Dr. Upton's chronology for the development of CES. Dr. Upton concludes that final location of the sequestered nuclear mass is at the L3-L4 region. That is the location at which the mass was detected in the CT and MRI scans, and that was the region where Dr. Broad conducted the laminectomy and surgically removed the abnormal material. There is also no question as to the source of the material removed by Dr. Broad, that abnormal mass had been released from the L3-L4 intervertebral disc. That, however, means that the sequestered disc material was released and ultimately found at the same location, the L3-L4 level. The size of that mass was sufficient to exert pressure on the thecal sac at that level in the spine. That means there is no evidence that the mass "floated", "dropped" and "settled". Rather it was found at precisely the same location as where it was released.

[234] Further, once outside the physical restrictions of the intervertebral disc, the nucleus pulposus material would rapidly swell as it bound water. That swelling *in situ* also would prevent a period of 'floating'.

[235] I reject Dr. Upton's conclusion as to the time at which the L3-L4 intervertebral disc nucleus pulposus was sequestered and ejected into the vertebral canal. Dr. Upton's model for the injury requires that the sequestered material not impinge on the thecal sac between its time of release (February 25) and 12-24 hours before the emergence of the CES symptoms (March 1). He also indicated that the "settling" process is governed by gravity. That contradicts his conclusion that the sequestered disc material had not been in a position to press on the thecal sac and produce CES between February 25 and March 1.

[236] Dr. Erwin's basis for proposing ejection of the L3-L4 intervertebral disc contents on February 25 relies in part on his conclusion that CES can emerge over a longer time period, and explains the symptoms between February 25 and March 1-2 as the natural progression of the

disorder, not aggravation of a disc injury. I have previously rejected this longer time-line for the progression of CES following pressure on the cauda equina structures.

[237] Dr. Erwin also concludes that Mr. Malinowski's condition did not worsen following each chiropractic treatment, and that had a catastrophic intervertebral disc failure occurred during either adjustment then Mr. Malinowski should have experienced extreme pain as the annulus fibrosis membranes were ruptured. Dr. Erwin observed that Dr. Schneider's notes instead recorded that the patient reported being "BAT" ('Better After Treatment') or "BALT" ('Better After Last Treatment'). On cross-examination Dr. Erwin acknowledged that his conclusion flowed specifically from the "better after treatment" notes, and that he had not taken into account the testimony of Mr. Malinowski concerning the progression of his injuries, and the records of Drs. Sawicki and Broad that Mr. Malinowski had reported no post-chiropractic improvement, but instead that his condition had worsened after the adjustments. I put little weight on Dr. Erwin's explanation for the timing of the L3-L4 intervertebral disc nucleus pulposus ejection in light of Dr. Erwin's not having accounted for Mr. Malinowski's independent reports of post-adjustment deterioration.

[238] Dr. Kumar offered his explanation of how Mr. Malinowski had been injured and the progression of that injury to CES. Mr. Malinowski showed no signs of degenerative intervertebral disc pathology prior to his injury on February 25. The reported "lightning" pain, location of the subsequent pain, and the severe limitation of straight leg raising indicates the February 25 injury was a lumbar disc protrusion, and not a sacroiliac joint sprain.

[239] Dr. Kumar concluded that Dr. Schneider's and Dr. Sawicki's notes indicate that Mr. Malinowski experienced increased pain and progressive neurological deterioration following the February 26 and 27 chiropractic treatments. On March 1 Mr. Malinowski could not feel his legs. While in the Misericordia Community Hospital emergency ward Mr. Malinowski exhibited restricted leg motion and complained of numbness in the groin.

[240] Surgery conducted on March 2 by Dr. Broad removed the nucleus pulposus as a single large smooth extradural mass from the L3-L4 region. Dr. Kumar concluded this mass was the progressive result of the Feb. 25 L3-L4 intervertebral disc protrusion. In Dr. Kumar's opinion the changes in observed and reported symptoms from February 25 to March 1 were associated with the nucleus pulposus material being progressively expelled, and that different kinds of pain and symptoms emerged as that process continued. He agreed, however, that a large disc extrusion is most commonly associated with sudden and catastrophic disc failure.

[241] Dr. Kumar explained that pressure by the anomalous material leads to inflammation of the cauda equina structures (dural sac, spinal nerves) that experience the anomalous pressure. Once initiated, this process progresses as that inflammation itself creates further pressure on the cauda equina structures. This increasing pressure causes nerve dysfunction and emergence of the characteristic CES symptoms, often in a relatively short period of a day or so. For Mr. Malinowski, inflammation had occurred by March 1, and on that basis Dr. Kumar concluded the

intervertebral disc nucleus pulposus was completely ejected into the vertebral canal and initiated CES within the previous one or two days.

[242] Mr. Huijbregts reached a similar conclusion, but emphasized that the pre-adjustment examination of Mr. Malinowski by Dr. Schneider offers helpful evidence as that examination eliminates the possibility that the February 25 injury had ejected the L3-L4 intervertebral disc nucleus pulposus. Mr. Huijbregts concluded that the initial injury was restricted to damage to the intervertebral disc, and that the pain reported was a result of parts of the annulus fibrosis being damaged. He notes on February 26 that Dr. Schneider's observations (normal hamstring, patellar, and Achilles tendon reflexes, heel and toe walking, muscle strength tests, and skin sensation test) all eliminate the possibility that at that point Mr. Malinowski had suffered an injury that affected his vertebral nerve roots. The leg pain reported is misleading, and was likely referred pain that originated from the vertebral disc injury. At this point CES had not developed, as certain sensory and motor deficits associated with CES had not been reported.

[243] Mr. Huijbregts questioned the value of the evidence from the straight leg raise test, noting that the range of motion is less relevant than the range of motion without discomfort, and that Mr. Schneider's notes fail to record the latter, but if pain had been reported at angles of under 40 degrees then that would have been a strong indicator of disc protrusion or extrusion. The observed range of movement instead suggested that no nerve roots had been affected on February 26, and consequentially that major disc herniation had not yet occurred.

[244] Another observation recorded by Dr. Schneider on February 26, that Mr. Huijbregts indicates supports his opinion that at that point the L3-L4 intervertebral disc was intact, is that Mr. Malinowski reported that when he leaned backwards (extended his spine) the discomfort was reduced. That movement would have reduced pressure on an injured but not ruptured disc, but would not have the same result where a herniation had occurred.

[245] Mr. Huijbregts concluded that Mr. Malinowski's L3-L4 intervertebral disc rupture, nucleus pulposus ejection, and subsequent CES, occurred after Mr. Malinowski's initial examination by Dr. Schneider. He concluded that the trigger event was the February 26 manipulation by Dr. Schneider, and that was likely aggravated by the second manipulation the following day. The sensations associated with the therapy are identified as consistent with a disc rupture and material release, particularly in light of the aggravated symptoms reported by Mr. Malinowski the following morning. Mr. Malinowski's loss of sensation between February 28 and March 1 was the result of CES that evolved with the swelling of material released on February 26 and possibly 27.

[246] I conclude, on the basis of the experts' evidence, but especially on the time line for progression of CES, that the L3-L4 intervertebral nucleus pulposus was ejected into the vertebral canal in a period about 24 hours prior to the emergence of CES symptoms between February 28 and March 1. The sequestered L3-L4 nucleus pulposus was recovered from the same level in the spine as where it was located, and once ejected would have rapidly swollen into its final shape

and size. Since the CES symptoms emerged February 28 to March 1, the pressure on the thecal sac must have started in the February 26-27 period.

[247] I reject the proposition that the ejection occurred on February 25, prior to the adjustments conducted by Dr. Schneider. Dr. Kumar and Dr. Upton agree that recovery of the nucleus pulposus as a single piece rather than in fragments indicates the nucleus pulposus was ejected in a single event, rather than in a progressive manner.

4. Is the Force of an SMT to the Sacroiliac Region Never Sufficient to Aggravate a Damaged L3-L4 Intervertebral Disc?

[248] Much expert testimony was provided on the degree of force involved in a chiropractic adjustment, and what kinds of biological effects could flow from those forces. This question of the potential effect of a chiropractic adjustment to the sacroiliac joint can be divided into two subordinate issues, whether the force involved in the adjustment:

1. could never aggravate a previously damaged L3-L4 intervertebral disc, and
2. would probably have aggravated Mr. Malinowski's already damaged L3-L4 disc.

[249] The answer to this first question evaluates whether it was medically impossible or improbable that the Dr. Schneider's adjustments could have resulted in a L3-L4 intervertebral disc herniation. Before reviewing the expert testimony, I note that here the relevant question is whether this chiropractic treatment can aggravate a *damaged* lumbar intervertebral disc. There was consensus among the experts that Mr. Malinowski's L3-L4 intervertebral disc was damaged in some manner on February 25, though the exact scope of that damage is in question.

[250] Dr. Symons commented specifically on this issue and opined that a sacroiliac joint adjustment would result in less than 25 Newtons of force being exerted against the L3-L4 joint, and explained that force is equivalent to the weight of 25 chocolate bars. This value was derived from research that had used a surface sensor to measure the amount of force applied by a chiropractor during a sacroiliac joint adjustment, and assumed only 2% of that force was transmitted to the target joint, the remaining "being spread out through the fat, the muscle, and so forth."

[251] Mr. Huijbregts submitted rebuttal testimony to this research and strongly critiqued Dr. Symons' opinion on the quantity of force that is transferred to the spine during a chiropractic adjustment, specifically that at most Mr. Malinowski would have experienced a 500 Newton force during the sacroiliac joint adjustment, of which only 25 Newtons would be transmitted to the target joint. Symons' published research indicates that certain adjustments had involved almost 900 Newtons of force, and that the amount of force applied was highly variable, varying up to four fold from one chiropractor to another. Dr. Symons' claim that only 2% of force applied was conducted to the target joint was described as being an arbitrary value without any

factual basis, and Mr. Huibregts questioned that if only 2% of the force applied is transmitted to the target joint, where then does the remaining 98% go and how is it rendered inconsequential?

[252] Dr. Symons indicated he was not aware of any scientific literature that supported the conclusion that SMT adjustments could aggravate damaged intervertebral discs. Dr. Symons acknowledged that his area of research was on the cervical and thoracic components of the human spine, and thus relied on published research conducted in the 1970's in which isolated and partially dissected lumbar spine components were twisted to see at what rotation the intervertebral discs failed. The rotations tested exceed those possible in the human spine without breaking parts of the vertebrae. Based on that data Dr. Symons extrapolated that an intact human spine could never rotate far enough to cause even microscopic tearing of the intervertebral disc structures, though he acknowledged that the emergence of microscopic damage at a certain rotation was an assumption based on the stress response properties of connective tissues and not based on personal expertise or research specific on that point.

[253] Mr. Huibregts also strongly critiqued this analysis. He questioned the relevance of research conducted on forces in isolation, arguing that velocity under which the force is applied is crucial to accurate modelling of stress on intervertebral discs. He argued that attempts to extrapolate stress failure data from other kinds of tissues (rabbit knee ligaments or isolated and partially dissected spinal structures as was the case in the research referred to by Dr. Symons) has little relevance to the forces and stresses experienced by intervertebral discs in live humans. Similarly, research focussed on large-scale failure of intervertebral discs may underestimate relevant damage that occurs under lower loads, but only results in microscopic structural failures, or failures in partially compromised annular structures.

[254] Dr. Erwin adopted Dr. Symons' analysis and conclusions, noting that intervertebral discs can take enormous loads before they fail. Nonetheless, he acknowledged in his expert report that "trivial manoeuvres" such as a rough bus ride, "simply bending, coughing, and sneezing, straining to pass stool" can aggravate an injured intervertebral disc. He confirmed in court that intervertebral disc rupture can come from what are normally unexceptional and benign actions.

[255] Dr. Erwin specifically stated in his expert report that chiropractic manipulations are contraindicated to persons with injured intervertebral disc because chiropractic manipulations can aggravate a damaged disc:

The possibility of enlarging a defect in the disc by manipulation is a reason that spinal manipulation should not be performed in patients with neurological impairment and particularly if such impairment is progressive.

Similarly, on cross examination Dr. Erwin admitted that chiropractic adjustment should be conducted with care when there is a damaged intervertebral disc in play.

[256] Dr. Upton concluded there is little evidence to prove a relationship between lumbar injury (CES and disc herniation) and chiropractic treatment, emphasizing the low probative

value of studies that are based on anecdotal reports. He similarly questioned the relevance of studies conducted without adequate experimental controls. Useful evidence on the relationship between chiropractic therapies and injuries would require larger sample populations, such as the epidemiological research conducted by Dr. Cassidy on the association of cervical neck adjustment to strokes.

[257] Dr. Henderson denied there is any evidence that a sacroiliac adjustment has ever damaged an intervertebral disc.

[258] Dr. Kumar stressed that rotational loading from chiropractic manipulations necessarily increases pressure within intervertebral discs, and that is a well understood biophysical phenomenon that would be known by any general practitioner, and presumably should be a fact taught in chiropractic colleges. Specifically in relation to the chiropractic treatment performed by Dr. Schneider, Dr. Kumar noted that the re-enactment of the adjustment had the patient lying in a position that resulted in lumbar flexion and resulted in pressure on lumbar intervertebral discs. Any pressure transmitted along the spine to the lumbar vertebrae during the sacroiliac joint adjustment would then further increase the pressure caused by the patient's posture, with the maximum load being placed on the L3-L4 intervertebral disc.

[259] Dr. Freeman concluded from a review of scientific literature that lumbar spine manipulation can produce both temporary and minimally harmful effects, and also more serious and long-lasting complications. While minor side effects are relatively common (one third to one half of all patients), CES and disc herniation are less common, but not unknown. Further, Dr. Freeman stressed that there is no minimum force that is required to cause an intervertebral disc injury. These injuries have occurred when a person bent over or sneezed. In other words, there is no safe minimum chiropractic adjustment. On that basis Dr. Freeman concluded a biologically plausible link exists between the SMT and the CES injury.

[260] Mr. Huijbregts noted that CES had been associated in certain instances with chiropractic procedures and lower spine manipulation. On cross-examination, Mr. Huijbregts agreed that this association was largely anecdotal and that scientifically rigorous and controlled research was simply not available on this point. Huijbregts also noted that data linking CES to those manipulations does not generally break down that association to specific kinds of treatment (for example: long lever vs. short lever techniques, kind of practitioner who conducted a spinal manipulation, or whether manipulation occurred with or without anaesthesia).

[261] The claims that chiropractic adjustments only resulted in effects in the target vertebrae was questioned, particularly in light of research that had indicated cavitation occurred in intervertebral joints (including the L3-L4 joint) when a sacroiliac joint adjustment was conducted. Mr. Huijbregts agreed with Dr. Symons' conclusion that these experiments have technical limitations, given that there are issues in determining exactly which location had produced a given sound, but there seemed little question that the research identified effects that extended outside the target sacroiliac joint. However, Dr. Symons' criticism that cavitation is of limited probative value as "the absence of cavitation does not mean that there is no force" does

not support his position that mechanical effects of a sacroiliac joint adjustment are limited to the target region.

[262] Throughout his testimony and cross-examination, Dr. Carstensen emphasized that the spinal column is functionally and physically interconnected and, as a consequence, an action on one part of the spine will often have consequences outside that specific region. In relation to chiropractic procedures, that means that a manipulation at one location may have effects that spread along the spine. For example, actions on sacroiliac joint can affect more distant areas, such as intervertebral discs in the lumbar region. When challenged on this point, Dr. Carstensen was emphatic that sacroiliac manipulation leads to other effects in the spinal column, and that all lumbar vertebrae would experience “some degree of force”. He viewed this result as essentially inevitable, particularly given the much greater degree of force required to effect a sacroiliac joint, than between the lumbar vertebrae. It was irrelevant how that force was applied, the same result would occur regardless of whether a “long lever” or “short lever” mechanism was the source of force exerted on vertebrae and intervertebral discs.

[263] Dr. Carstensen also indicated that the interconnection of lumbar and sacroiliac regions means chiropractic interaction with the latter can affect the former, and the forces transferred can lead to lumbar disc injury and CES. This might be a new injury, or aggravation of an existing disc injury. This link was one that Dr. Carstensen indicated was well known and recognized by the chiropractic community. However that conclusion was challenged during cross examination. Dr. Carstensen could not identify any specific case study that had conclusively indicated sacroiliac movements had led to lumbar region injuries. When asked about the risk of that kind of event, Dr. Carstensen strongly critiqued an attempt to estimate the frequency that CES was associated with chiropractic therapy via published case reports. He observed that published case reports will necessarily only document some observed medical events, and rejected attempts to project statistical threat / risk via anecdotal case reports, rather than a systematic epidemiological study.

[264] To a large degree the various testimony on the exact amount of force that is experienced by the L3-L4 intervertebral disc during a chiropractic sacroiliac manipulation, such as that performed by Dr. Schneider, is irrelevant. All experts agreed that a chiropractic adjustment involves application force to a part of the spine. Chiropractic techniques involve adequate force to externally manipulate the patient’s spinal structures, which is evidenced in part by consequences such as cavitation sounds, but also by the accepted fact that sometimes chiropractic techniques can inadvertently injure patients. There was no dispute that the sacroiliac joint, the target of the therapy, is an anatomically strong and stiff structure, so an effective manipulation of that joint must involve non-trivial forces on that structure.

[265] I note that in this sense the testimony of Dr. Symons appears to lead to some peculiar conclusions. If the forces exerted during a chiropractic adjustment are so slight as to never or almost never have possible deleterious consequences to even a damaged intervertebral disc, a structure well known to be injured under even unremarkable circumstances, then what kind of possible biological and biophysical effect could result from a chiropractic adjustment? Taking

Dr. Symons' reasoning to its logical endpoint appears to suggest that chiropractic adjustment is little more than a placebo, a biomechanically inconsequential process. That seems a peculiar conclusion for a person trained and practicing as a chiropractor.

[266] It is clear that forces can be transmitted along the spine as a consequence of its structure. Though chiropractic techniques allegedly 'isolate' a joint, that is better characterized as taking steps to minimize the force exerted beyond the target location. The sacroiliac adjustments in question did not occur while Mr. Malinowski's pelvis was immobilized in some kind of apparatus.

[267] The experts also agree that disc herniation can result from very everyday motions and activities, such as simply bending or sneezing. If so, then chiropractic treatment must have the possibility of aggravating an intervertebral disc injury, including disc herniation.

5. Is it Probable that Mr. Malinowski's L3-L4 Intervertebral Disc Injury was Aggravated by the Chiropractic Adjustment to the Sacroiliac Joint?

[268] While I have concluded that intervertebral disc herniation is a possible consequence of a sacroiliac joint manipulation, the ultimate question in relation to causation is whether Mr. Malinowski's already injured L3-L4 intervertebral disc was aggravated by one or both of the sacroiliac adjustments performed by Dr. Schneider on February 26 and 27. The experts testified on that specific point.

[269] Dr. Freeman, a forensic epidemiologist, addressed the likelihood of Mr. Malinowski's injury being aggravated by the chiropractic adjustments on the basis of the known factual frequency of outcomes for a particular set of relevant factors. Dr. Freeman described what he identified as a well accepted set of three epidemiological requirements that are necessary to link a particular injury to a specific cause:

1. there must be a biologically plausible link between the traumatic exposure and the injury outcome;
2. there must be a temporal relationship between the exposure and the outcome;
and
3. there must not be a more plausible alternative explanation for the symptoms.

[270] On cross-examination, counsel for Dr. Schneider pointed out to Dr. Freeman that certain of the epidemiological studies he had cited as examples used more than these three factors to link a potential cause to a result. Dr. Freeman responded that the additional factors are secondary and not always applicable to a particular kind of injury or symptom, and the three requirements Dr. Freeman had identified were the ones that are universal and crucial to prove causation.

[271] On the first criterion, Dr. Freeman concluded from a review of scientific literature that lumbar spine manipulation can produce both temporary and minimally harmful effects, and also

more serious and long-lasting complications. CES and disc herniation are less common, but not unknown. As previously noted, Dr. Freeman concluded that intervertebral disc injury can emerge even while engaged in everyday activities, and thus there is no safe minimum chiropractic adjustment. On that basis Dr. Freeman concluded a biologically plausible link exists between the SMT and the CES injury.

[272] Dr. Freeman observed that the two SMTs were close in time to the emergence of CES symptoms. Dr. Freeman also concluded that the symptoms reported and observations recorded by Dr. Schneider prior to the February 26 treatment eliminate the possibility that the L3-L4 intervertebral disc had ruptured and released the nucleus pulposus prior to the February 26 pre-treatment examination, as during that examination Mr. Malinowski was “neurologically intact”. He highlights the negative Valsalva test as being particularly relevant. That is consistent with my conclusion that the L3-L4 nucleus pulposus was likely ejected within a day of the CES symptoms.

[273] Last, Dr. Freeman concludes the two SMT treatments conducted by Dr. Schneider are the most likely cause. He notes spine manipulation is a known cause of intervertebral disc injury and CES, and that lumbar disc injuries normally spontaneously improve, and only rarely (about 5%) of lumbar disc injuries progress into CES. At trial, he estimated the spontaneous emergence of CES to be “far less than 1 percent.”

[274] Dr. Freeman concluded that the injury scenario proposed by Drs. Erwin and Upton in relation to Mr. Malinowski’s CES injury does not conform to these criteria. The February 25 injury is temporally removed from the emergence of CES indicia, and the condition of Mr. Malinowski’s spine after that injury on February 26 is inconsistent with a herniated disc. Consequentially, Dr. Freeman concluded it is more probable that the herniation occurred sometime after February 25. The known potential causes of CES during that period were the two adjustments performed by Dr. Schneider. Epidemiologically, there is no reason to expect Mr. Malinowski’s condition would have worsened without some other event, here the SMT treatments. Balancing two or more improbable alternatives, the less improbable was the more likely cause of an injury.

[275] Dr. Erwin noted that, as day to day activities could aggravate Mr. Malinowski’s condition, there were many possible non-chiropractic events that probably further injured Mr. Malinowski’s L3-L4 intervertebral region and ultimately led to the emergence of CES. Dr. Erwin based his conclusion that Mr. Malinowski’s injured L3-L4 intervertebral disc was not probably further injured during either the February 26 or 27 adjustments on his understanding that aggravation by a “vigorous manipulation” would have resulted in discomfort. However, as I have discussed above, Dr. Erwin’s reasoning presumed that the improvement reported in Dr. Schneider’s post-treatment notes was accurate.

[276] Dr. Upton did not comment on whether Mr. Malinowski’s L3-L4 intervertebral disc injury could have been aggravated by the February 26 and 27 chiropractic treatments, as he had concluded that on February 25 the injury to the disc was already in its mature form, and

chiropractic treatment would have no effect on the sequestered fragment settling process and subsequent inflammation. His previously summarized criticisms concerning the poor evidentiary basis for linking chiropractic treatments to CES applied equally to Dr. Freeman's epidemiological analysis.

[277] As described above, Dr. Kumar concluded that the posture of Mr. Malinowski during the sacroiliac chiropractic adjustments, and the force of the adjustments themselves, would increase the pressure on the lumbar intervertebral discs, with the L3-L4 disc receiving the maximum force. As I indicated earlier, Dr. Kumar opined that the appropriate response to Mr. Malinowski's symptoms was to order two to three days of bed rest and analgesics, followed by physiotherapy; refer Mr. Malinowski to a physician for investigation by medical imaging and perhaps surgery if he did not improve; and advise him of the symptoms of CES, instructing him to immediately seek emergency medical treatment if those symptoms arose. Had this approach been followed, Dr. Kumar believed it was probable that the disc protrusion would have reversed without surgery, Mr. Malinowski's condition would have resolved, and he would have returned to work within 4 months at most. In coming to that conclusion, Dr. Kumar challenged Dr. Mandel's opinion that after two simple episodes of back pain a person should not work, and instead indicated 95% of patients return to work within 3 months of experiencing back pain. Rest is usually all that is required, and 90% of patients with a herniated disc recovered.

[278] Mr. Huijbregts concluded that Mr. Malinowski's L3-L4 intervertebral disc rupture, nucleus pulposus ejection, and subsequent CES, occurred after Mr. Malinowski's initial examination by Dr. Schneider. He concluded that the trigger event was the February 26 manipulation by Dr. Schneider, and that was likely aggravated by the second manipulation the following day. The sensations associated with the therapy are identified as consistent with a disc rupture and material release, particularly in light of the aggravated symptoms reported by Mr. Malinowski the following morning. Mr. Malinowski's loss of sensation on February 28 was the result of CES that evolved with the swelling of material released on February 26 and possibly 27. Mr. Malinowski's pre-treatment condition indicated disc injury that may have weakened the remaining intact annular structures. A weakened annulus structure would be vulnerable to rapid movement. Mr. Huijbregts identified the high velocity movement of a chiropractic adjustment as a crucial factor increasing the probability of failure in a stiff structure such as the annulus fibrosis of an intervertebral disc, noting that the normally elastic properties of annulus fibrosis membranes are reduced where force arises suddenly and the materials have less ability to first stretch according to their elastic properties. Mr. Huijbregts noted that CES had been associated in certain instances with chiropractic procedures and lower spine manipulation. On cross-examination, Mr. Huijbregts agreed that this association was largely anecdotal and that scientifically rigorous and controlled research was simply not available on this point.

[279] Dr. Upton's and Dr. Erwin's commentary on this issue is of limited assistance, given that their analyses are based on presumptions that I have either rejected or which are contradicted by Mr. Malinowski's evidence and his statements to other medical professionals. However, the other experts' testimony on this issue does provide several particularly useful and consistent facts:

1. persons with lumbar intervertebral disc injuries, including herniated discs, usually recover with bed-rest and without surgery; and
2. CES is an unlikely or very unlikely outcome for a lumbar intervertebral disc injury.

6. Conclusion

[280] Based on the medical and expert evidence relating to the issues I have examined, I draw the following conclusions:

1. A L3-L4 intervertebral disc injury occurred on February 25. It could not have resulted in the release of the entire nucleus pulposus from the L3-L4 intervertebral disc as that would have resulted in development of CES within an approximately 24 hour period. The symptoms observed by Dr. Schneider prior to Mr. Malinowski's February 26 treatment clearly exclude CES, and do not suggest nerve root impairment. While the exact character of the February 25 injury cannot be determined precisely, that injury had not initiated an inevitable progression to CES. Post-injury, the L3-L4 intervertebral disc was likely damaged but its outer annulus fibrosis layer was still intact. CES is a very unusual outcome for a disc injury, as most disc injuries spontaneously heal. Without aggravation of the February 25 injury, CES was a highly unlikely result.
2. Mr. Malinowski developed CES symptoms in the February 28-March 1 period, after both the chiropractic adjustments by Dr. Schneider. CES follows rapidly (about 24 hours) after pressure is applied to the thecal sac and causes an inflammation cascade. The pressure must have originated then in the February 26-27 period. The pressure was unquestionably caused by the ejection of the L3-L4 intervertebral disc nucleus pulposus into the vertebral canal. The near total ejection of the nucleus pulposus in one intact piece indicates the ejection occurred as a single event. That ejection must have occurred in the February 26-27 period, the period in which Dr. Schneider conducted his two treatments of Mr. Malinowski.
3. Spinal manipulations are known to potentially aggravate intervertebral disc injuries. Chiropractors (and other medical practitioners) recognize that special care is required when manipulating the spine of a patient who has an intervertebral disc injury. Chiropractic adjustments put force on the spine, and the spine is capable of transmitting force through its flexible interconnected structure. Intervertebral disc herniation is sometimes associated with very commonplace, everyday activities that do not place extraordinary force on the spine. Therefore there is a possibility that

either the February 26 or 27 chiropractic adjustments caused the L3-L4 intervertebral disc rupture and ejection of nucleus pulposus.

4. CES is a very rare injury, and not typically associated with a lumbar intervertebral disc herniation. The majority of lumbar intervertebral disc herniations resolve without surgery, provided the patient rests and engages in minimal activity. Aside from the February 26 and 27 adjustments, Mr. Malinowski engaged in only minimal activity between the February 25 injury and hospitalization. He does not report any events (other than the chiropractic treatments) where his condition worsened, or points at which he experienced a sudden increase in pain.

While the various activities (and inactivities) by Mr. Malinowski during the period are possible causes of Mr. Malinowski's CES, they are unlikely to be causes as CES only rarely occurs following lumbar intervertebral disc herniation *when a person rests*. That means a non-resting activity probably aggravated the February 25 disc injury and resulted in the ejection of the L3-L4 intervertebral disc nucleus pulposus.

5. During the critical February 26-27 period the only points at which Mr. Malinowski reported a change in his condition were following the chiropractic treatments. He reports something changing during the treatment, and that afterwards his condition worsened. These reports were made at trial, but also are recorded by the medical personnel who examined Mr. Malinowski in the period during which the CES emerged.

If rest usually results in lumbar intervertebral disc injury/herniation recovery, and here there was a further disc injury that led to the ejection of the nucleus pulposus, then logically, absent a better alternative, an external force with the known potential to cause disc herniation of an already weakened disc is the more probable cause of Mr. Malinowski's injury. That was the chiropractic adjustments.

6. The February 27 adjustment is the one more likely to have caused the L3-L4 intervertebral disc rupture, nucleus pulposus ejection, and subsequent CES. Drs. Kumar and Upton agree that once pressure starts on the cauda equina thecal sac that the CES inflammation cycle rapidly builds to produce characteristic CES symptoms, typically in under 24 hours. Since these symptoms clearly are present by the morning of March 1, that would indicate the February 27, rather than February 26, adjustment is the more likely trigger for nucleus pulposus ejection.

[281] I therefore conclude that, on a balance of probabilities, the L3-L4 intervertebral disc injury was aggravated during either or both the February 26 and 27 chiropractic adjustments, with the effect of ejecting the entire nucleus pulposus during the February 27 chiropractic adjustment, and that ejection event then led to the development of the CES in the days that followed. Dr. Schneider caused Mr. Malinowski's CES and resulting injuries.

VII DAMAGES

[282] The general principle that guides awards in tort injury cases is well established (*Viscount Dunedin in Admiralty Commissioners v. S.S. Susquehanna*, [1926] A.C. 655, at p. 661 (cited with approval in *West & Son Ltd. v. Shephard*, [1964] A.C. 326, at p. 345), see also *Andrews v. Grand & Toy Alberta Ltd.*, [1978] 2 S.C.R. 229, 83 D.L.R. (3d) 452):

... the common law says that the damages due ... for tort are damages which, so far as money can compensate, will give the injured party reparation for the wrongful act ...

The parties do not dispute that these general principles govern an award of damages in tort.

[283] Therefore, two issues need to be addressed:

1. what would have been Mr. Malinowski's circumstances, had he not been injured; and
2. what are Mr. Malinowski's post-injury circumstances, both past and future?

A. Mr. Malinowski's Claim

[284] At trial Mr. Malinowski sought the following quantum and allocation of damages:

1. non-pecuniary damages - \$250,000.00,
2. pre-judgment interest on non-pecuniary damages - \$80,000.00,
3. income and earning loss:
 - a. pre-trial - \$526,502.00,
 - b. future - \$1,787,614.00,
4. home-making capacity:
 - a. pre-trial - \$48,526.00,
 - b. future - \$157,905.00,
5. future house painting - \$11,501.00,
6. future cost of care - \$162,177.00,

7. Viagra - \$16,711.00,
8. WCB - subrogated claim - \$126, 500,
 - a. past medical aid costs - \$69,000.00,
 - b. past rehabilitation costs - \$43,000.00, and
 - c. special damages - \$14,500.00.

[285] Dr. Schneider disputes all the damage headings, aside from the quantum of the three WCB items. The parties have agreed to the appropriate special costs damages, if Dr. Schneider is found liable.

[286] My first task is to resolve certain factual issues that have broad implications across the various items listed above.

B. Medical Questions

[287] Two medical questions require immediate consideration, as their implications flow throughout the pre- and post-trial periods:

1. did Mr. Malinowski have a pre-injury condition or conditions that would have led to future impairment; and
2. what degree of impairment has Mr. Malinowski suffered as a consequence of Dr. Schneider's negligence, and how can that impairment be expected to evolve in the future?

1. "Crumbling Skull" - Pre-Injury Conditions that would Lead to Future Impairment

[288] Dr. Schneider argues that Mr. Malinowski's pre-injury medical condition would have inevitably lead to future impairment. This argument is sometimes called a "crumbling skull" defence, that an injured person would inevitably have suffered some kind of unrelated injury and should not be compensated by the tortfeasor for that inevitable negative development. A defendant who raises a crumbling skull argument has an obligation to prove a "measurable risk" of impairment exists: *Athey v. Leonati*, [1996] 3 S.C.R. 458 at paras. 34-36, 140 D.L.R. (4th) 235.

[289] As a preliminary step, I clarify what I mean by the term "the injury" in the context of this analysis. Dr. Schneider had no role in the February 25 event and that event becomes part of Mr. Malinowski's pre-injury history. The question for me is what would have been Mr. Malinowski's post-February 25 prognosis if he had not had chiropractic treatment. The defence

argues two different kinds of “crumbling skull”: ongoing back injury, and psychological state and substance dependencies.

a. Spine and Back

[290] I have previously concluded that Mr. Malinowski’s most probable choice of treatment, had he been advised of and understood all alternatives and their risks, would have been bed-rest and analgesics. I have also concluded that the February 25 injury involved damage to the L3-L4 intervertebral disc, but that following the February 25 event the outer annulus fibrosis layer of the L3-L4 intervertebral disc was still intact. The medical experts whose testimony I have accepted agreed that the prognosis for recovery from that kind of injury was good.

[291] Specifically, Dr. Kumar concluded that had this scheme been followed then Mr. Malinowski would have returned to work within four months at the latest; that 95% of patients return to work within three months of experiencing back pain. Rest is usually all that is required, and 90% of patients with a herniated disc ultimately recover. That information provides me with a strong basis to conclude that Mr. Malinowski would have probably returned to work after a three month period, had Mr. Malinowski not been injured by Dr. Schneider’s negligence.

[292] Dr. Schneider argued that the February 25 injury would more likely have led to recurring lower spine issues. Dr. Hoffman suggested Mr. Malinowski had pre-existing degenerative disc disease in multiple levels of the lower spine. Dr. Mandel concluded back dysfunction would inevitably remove Mr. Malinowski from the workforce. I have rejected that testimony and concluded that, other than the February 25 injury, Mr. Malinowski’s back was essentially healthy. Dr. Schneider argued that reports of recurring disc herniation and pain in 2004 also indicated a poor future prognosis for Mr. Malinowski. That evidence only proves that Mr. Malinowski might be more prone to spinal dysfunction once his spinal injuries were aggravated by Dr. Schneider’s negligent actions.

[293] Dr. Schneider also argued that reports of various pre- and post-February, 2002 health issues indicate Mr. Malinowski’s work prospects were impaired, including knee pain, hand and arm issues, drinking, emotional issues, and depression. I put limited weight on his post-2002 health and psychological issues. To conclude these were inevitable in the absence of Mr. Malinowski’s chiropractic injury neglects to account for the severe and ongoing effects of Mr. Malinowski’s CES injury. Similarly, his pre-February 2002 health issues are not especially striking, recurrent, or of an inevitable and progressive nature that would establish a “measurable risk” of future dysfunction. The evidence certainly does not create a probability that Mr. Malinowski would have his work history impaired by either the February 25 injury (beyond the three month absence) or any other of the identified health conditions.

b. Psychological State and Substance Dependencies

[294] The second form of “crumbling skull” alleged by Dr. Schneider is that Mr. Malinowski’s history of “psycho social features”, including depression and alcohol abuse, would result in him inevitably developing a narcotic drug dependency and entering a state where he was less able to

work due to those “psycho social” factors. Dr. Schneider heavily relies on the evidence of Dr. Hoffman, who in summary concluded that Mr. Malinowski developed Chronic Pain Syndrome as a consequence of his pre-existing psychological makeup, psychological problems, alcohol and marijuana consumption, and depression. Though Dr. Hoffman’s testimony was not especially clear, it seems Dr. Hoffman had initially separated pain experienced by Mr. Malinowski into two general categories: pain that flowed from the CES and its treatment, and Chronic Pain Syndrome, pain that emerged later as a consequence of Mr. Malinowski’s pre-injury characteristics (psychological makeup, psychological problems, alcohol and marijuana consumption, and depression). Dr. Hoffman concludes in his *Rule* 218.1(12) report that:

Mr. Malinowski’s pre-existing status (health problems, psycho social features, and sporadic employment) would have caused him to gradually decrease the days that he worked each year. If the February 2002 incident did not occur, Mr. Malinowski probably would have ceased employment long before age 62 years. It is very unlikely that Mr. Malinowski would have been able to work until age 62 years (average age of retirement), if the incident of February 2002 had not occurred.

[295] Dr. Brian Knight, a specialist in anaesthesiology and pain medicine, and who has operated pain clinics at the University of Alberta and Misericordia Hospitals, challenged that conclusion. Dr. Knight critiqued the inconsistent manner in which Dr. Hoffman had defined “chronic pain syndrome”, noted that Mr. Malinowski does not have a significant pre-injury history of prescription painkiller use, and concluded that Mr. Malinowski’s post-injury alcohol consumption and drug dependencies are better viewed as responses to the ongoing pain that flowed from his CES injury. Dr. Knight did not divide Mr. Malinowski’s post-injury pain into a CES-based “neuropathic pain” component, and a second “Chronic Pain Syndrome” component that derived from non-CES causes. Instead, Dr. Knight concluded that Mr. Malinowski’s ongoing pain all flowed from the CES injury, and that Mr. Malinowski’s chronic pain may have prohibited Mr. Malinowski from ending his opiate consumption. He noted that ongoing opiate use is accepted as sometimes necessary for managing neuropathic pain.

[296] I prefer the opinion of Dr. Knight where the conclusions of Dr. Knight and Dr. Hoffman conflict. The foundation of Dr. Hoffman’s analysis is suspect. For example, Dr. Hoffman states in his expert report that “Mr. Malinowski tended to use a lot of medications prior to February 28, 2002. He used narcotic medications, such as Tylenol #3 intermittently.” Yet the evidence shows that Mr. Malinowski in total had been prescribed Tylenol 3 on two occasions prior to the February 25 injury. Dr. Hoffman also bases his analysis on the mistaken belief that Mr. Malinowski’s lumbar spine had exhibited “multilevel lumbar degenerative changes” prior to the CES injury; I have found Mr. Malinowski’s spine was healthy prior to the February 25, 2002 injury.

[297] Beyond these factors that undermine the evidentiary foundation of Dr. Hoffman’s conclusion, there is an additional and very serious defect in Dr. Hoffman’s evidence. Dr.

Hoffman based his expectation on the duration of CES associated pain on his own expressed expertise in the progression of spinal injuries:

Q. ... Did you consider that Mr. Malinowski's pain continued beyond the normal healing time?

A. Yes. I would have expected more improvement in this condition over time. I think it was beyond the normal - pain continued more than anticipated, yes.

...

Q. So what was your opinion would have been the normal healing time for the pain that Mr. Malinowski suffered as a result of the disc extrusion and sequestration at L3-L4?

A. The point of that statement there rather than breaking it apart is that it's long-term pain that includes significant psycho social dysfunction. So the emphasis is not on the specific duration of healing, but it's – I got the psycho social dysfunction. That is the emphasis of the meaning of that phrase or that sentence.

[298] While, as I noted, Dr. Hoffman's in-court testimony and written expert opinion are not especially clear, I conclude that Dr. Hoffman essentially 'reverse-engineered' his proof of Mr. Malinowski's inevitable decline into drug addiction and chronic pain symptoms from Mr. Malinowski's medical history. Dr. Hoffman concluded that Mr. Malinowski's CES injury would have naturally healed at some point, and rather than being caused by the CES injury, any history of pain that followed had a "psycho social" basis. Dr. Hoffman seems to have reasoned that since Mr. Malinowski continued to report pain symptoms after his CES injury had healed, that later pain was caused by Mr. Malinowski's "psycho social" crumbling skull.

[299] There is an obvious flaw in this reasoning, and that is that the medical experts whose testimony I have accepted were clear that CES injuries can be permanent, and that is precisely and unfortunately the circumstance for Mr. Malinowski. Dr. Kumar and other experts have opined and I accept that, while Mr. Malinowski's condition improved post-surgery, his ongoing lower body dysfunction and pain are permanent, the consequences of irreparable damage to Mr. Malinowski's nervous system.

[300] Dr. Hoffman has clearly and erroneously attributed reported pain and dysfunction to "psycho social" causes when the CES injury instead is the cause of Mr. Malinowski's ongoing pain symptoms. I therefore reject the "psycho social" crumbling skull proposed by Dr. Schneider.

2. Impairment that Resulted from the CES Injury

[301] Other than Dr. Hoffman, the medical experts conclude that no improvement can be expected in Mr. Malinowski's state. I conclude that his present condition is permanent, and that no further improvement can be expected.

[302] Post-injury, Mr. Malinowski experienced pain and severe impairment to his lower body functions. His control of lower digestive and urinary systems improved six to eight months post-injury. Presently he experiences periodic bladder and bowel incontinence, and ongoing partial sexual dysfunction and lack of genital sensation. He wears adult diapers in response to his periodic loss of excretory control.

[303] Various medical examinations concluded Mr. Malinowski had ongoing leg weakness and impaired sensory function in the leg and lower abdomen. In 2007 he was diagnosed with "failed back syndrome", a chronic pain condition. Other assessments and medical examinations also concluded Mr. Malinowski experienced ongoing pain, which had on a number of instances led to his being immobilized or seeking emergency treatment for that pain. Mr. Malinowski became dependant on narcotic painkillers during the 2005-2008 period.

[304] Mr. Malinowski presently reports ongoing constant pain, lower back stiffness and spasms, that are aggravated by activity. He also reports ongoing difficulty with sitting, climbing, and bending activities, and daily uses painkillers and anti-inflammatory drugs.

C. Mr. Malinowski's Employment and Educational History and Future

[305] Another broad theme that influences many of my conclusions concerning the damages due to Mr. Malinowski flow from the manner in which he succeeded (and did not succeed) in various employment and educational efforts. The parties take very different views of how Mr. Malinowski's life would have unfolded after February 25, 2002, had his workplace injury not been aggravated by Dr. Schneider's negligence.

1. Pre-injury Educational Background

[306] Mr. Malinowski's past is quite well documented, and not generally in dispute. He was born in Poland and educated in that country for eight years. He had 10 months of technical training in Poland and Germany. His family relocated to Canada and he attended several years of high school studies in Canada prior to dropping out. His academic performance was unimpressive, and that was repeated several years later when he attended one term of high school classes at Alberta College.

[307] His formal professional training is minimal. He attended several days of an electrical apprenticeship program in 1993-1994, and one month of electrician trade training at NAIT in 2001.

2. Pre-injury Work History

[308] Mr. Malinowski's work history discloses a pattern of short periods of employment, sometimes full-time, sometimes part-time, followed by periods of unemployment in which he collected employment insurance and/or social assistance. Between 1992 and 1999 he occupied a variety of labour and service positions, including working as a security guard, painter, a delivery person, and in retail. Mr. Malinowski worked 18 weeks in 2000 and 23 weeks in 2001 as an apprentice electrician.

[309] Between 1992 and 2001 Mr. Malinowski had an average annual income of \$10,366.30, with a range of \$23,558.00 (2001) and \$371.00 (1994). During that period he received an average of \$3,334.50 per year in Employment Insurance and social assistance payments.

[310] Mr. Hawrelak commented on this kind of work history, which he characterized as "erratic" and "sporadic", and concluded that Mr. Malinowski was a person "whose career motivation was poor." Defence expert Dr. Allan Mandel had a similar opinion, characterizing Mr. Malinowski as being "a below average earner".

3. Post-injury Educational and Work History

[311] Mr. Malinowski has not been employed since his February 2002 injury, other than working as a painting estimator for several weeks in September, 2003.

[312] Post-injury Mr. Malinowski has engaged in a number of educational programs.

[313] Mr. Malinowski attended a pre-business upgrading program at NAIT in 2005, but abandoned that after a month. He took other English courses from several sources. In 2005-2007 he attempted a number of high-school courses via continuing education, but other than an introductory computer course either failed those courses or received low (D, D+) grades.

4. Expert Analysis of Mr. Malinowski's Aptitudes and Skills

[314] Mr. Malinowski's injuries have clearly impaired his ability to work. There is no real question that for a period of at least one year post-injury he was essentially unable to work.

[315] A number of experts interviewed and evaluated Mr. Malinowski to determine his ability to work. A WCB evaluation in 2004 concluded that Mr. Malinowski had an ability to conduct light tasks, but more slowly than most persons. Dr. Pisesky reported to the WCB in 2007 that Mr. Malinowski was not able to engage in his previous work, was restricted to sedentary tasks, and had chronic pain that had led to narcotic dependence.

[316] Dr. Moreau examined Mr. Malinowski on June 2009, and concluded it was unrealistic that Mr. Malinowski could return to work either full-time or part-time. Dr. Esmail came to the same conclusion following his examination of Mr. Malinowski in 2007.

[317] Post-injury WCB tests indicated a below average intelligence, and low or below average reading, math, and spelling skills. This correlates with the results of tests administered by Mr.

Hawrelak, who concluded that Mr. Malinowski had a grade six reading skill, a grade four writing skill, and a grade seven math skill.

[318] Mr. Hawrelak's investigation also indicated Mr. Malinowski had below average eye-hand and motor coordination, and impaired dexterity. I note that these specific skill tests represent Mr. Malinowski's post-injury state, and may not be representative of his pre-injury abilities.

[319] Post-injury WCB vocational counselors recommended Mr. Malinowski could be employed as an order desk clerk, a sales representative, a locksmith, a safety officer, an electrical construction estimator, or human resources officer, but recognized he lacked skills in those disciplines.

[320] Mr. Hawrelak's conclusion is that Mr. Malinowski is ill-suited to any profession that requires formal training. This was also the conclusion of Dr. Mandel, who opined that Mr. Malinowski's intellectual capacity restricted him to unskilled occupations such as a construction worker, security guard, or taxi driver.

5. Conclusion - Mr. Malinowski's Education and Work Prospects

[321] My review of the preceding evidence leads to a number of conclusions concerning Mr. Malinowski:

a. Mr. Malinowski's Employment/Unemployment Habits

[322] The parties take very different views of the probable evolution of Mr. Malinowski's career. Mr. Malinowski suggests that his injury occurred about the time that he was starting a new career as a unionized electrician that would have led to his advancing from apprentice to journeyman, with corresponding higher salaries. He also suggests that the booming Alberta economy would have allowed him to spend more time working and less between jobs, and that he would have seized that opportunity.

[323] Dr. Schneider argues that projection fails to account for Mr. Malinowski's pattern of only working limited periods, then being unemployed and receiving social assistance and/or employment insurance payments. In essence, his argument is that, while Mr. Malinowski might have improved opportunities post-injury to work longer hours and advance professionally, his history suggests he would not exploit that opportunity to its fullest.

[324] I generally agree with Dr. Schneider's position. My conclusion is that Mr. Malinowski would not have worked full-time even if he had the opportunity to do so. The prior decade's record shows an individual who preferred to spend less time working rather than to maximize income opportunities, what Mr. Hawrelak said was "often associated with a below average work ethic." Mr. Malinowski testified that he preferred to rest between jobs. In 2001 Mr. Malinowski's income was about half that of a full-time second year apprentice electrician. The

2001 year was the one in which Mr. Malinowski earned more (\$23,558.00) than in any previous year.

[325] The suggestion that Mr. Malinowski was changing his lifestyle is simply not supported by his pre-injury history, nor his post-injury conduct. Mr. Malinowski preferred a less strenuous work schedule, and I conclude that he would most likely have continued his pattern of ‘breaks’ between jobs. I therefore conclude that if Mr. Malinowski had remained able to work, he would probably have continued to work less than full-time, more likely to have worked closer to half-time.

v *b. Mr. Malinowski’s Employment Advancement*

[326] The parties also disagree as to the probable career path that Mr. Malinowski would have followed had he not been injured. Mr. Malinowski suggests that he would have advanced in his career as an electrician and, according to Mr. Hawralek, would have been a journeyman by March 2006, at the latest. That estimate was described as conservative, based on Mr. Malinowski’s 2001 50% work schedule. Mr. Hawralek acknowledged that Mr. Malinowski’s education history and aptitude tests mean there is little prospect that Mr. Malinowski could be successful in a formal educational setting. However, he was of the opinion that Mr. Malinowski could progress on a skills basis to be a journeyman electrician, but no further. Mr. Hawralek stressed that the NAIT apprenticeship program classroom component was passed by those who attend.

[327] Dr. Mandel disagreed. He and stressed that the results of Mr. Hawralek’s tests and Mr. Malinowski’s work and education history instead indicated it was unlikely that Mr. Malinowski would have been able to complete an electrical apprenticeship and advance to a journeyman position. However, Dr. Mandel in part relies on the opinion of Dr. Hoffman that Mr. Malinowski’s spine was already degenerating prior to February 25, 2002. Dr. Mandel instead projects that Mr. Malinowski would have been unable to continue his employment as an electrician, and would instead have been forced into “unskilled occupations, such as a construction labourer, security guard, or taxi driver.”

[328] All experts generally agreed that Mr. Malinowski is ill-suited to academic or either classroom or correspondence-based formal training. Any career progression that depends on those kinds of education was thus highly unlikely. That said, Mr. Malinowski is clearly not a person without skills. He was employed for a considerable time as an electrician, albeit sporadically, and his ongoing employment in that occupation indicates he had the ability to work in that trade. I conclude Mr. Malinowski would have continued to be an electrician had he not been injured by Dr. Schneider’s negligence. However, I reject the suggestion that Mr. Malinowski would have inevitably advanced to journeyman status. Rather, a combination of his work ethic and lack of intellectual aptitude would have restricted him to apprentice-type work.

[329] Mr. Malinowski was clearly able to learn through hands-on experience, and I expect that his accumulated experience would have some value to his employers. As a result, I conclude that, while Mr. Malinowski was unlikely to advance to journeyman status in the electrician trade, he would nevertheless accumulate skills that would command payment above the basic apprentice union levels. In the period immediately prior to his injury Mr. Malinowski was paid a second year apprentice wage on the basis of his skills even though he had not passed the tests to be at this level. I conclude that it is probable that Mr. Malinowski would be paid at that level for the remainder of his career as an electrician.

c. Mr. Malinowski's Career Alternatives

[330] A number of post-injury career alternatives have been suggested for Mr. Malinowski, and were investigated by the WCB. I conclude that none of these alternatives are practical. Mr. Malinowski is impeded by two factors that made his post-injury employment highly unlikely.

[331] First, he is clearly unsuited to the kinds of jobs that involve formal training and intellectual activities. He is a person who is best suited to working with his hands, and learning by experience. For example, attempts to re-train him as an office worker are going to fail. Second, Mr. Malinowski's ongoing physical impairment denies him the ability to work in the kinds of professions for which he has an aptitude. His labour and work skills are ones that involve physical tasks to which he is no longer suited.

[332] I conclude that Mr. Malinowski is no longer employable in any realistic sense.

d. Mr. Malinowski's Failure to Mitigate

[333] Dr. Schneider alleges that Mr. Malinowski failed to take steps to mitigate the effect of the injuries caused by his negligence. An injured party has an obligation to take steps that reduce the consequences of the injury.

[334] The Supreme Court of Canada has commented on the principles that apply when a court evaluates the adequacy of post-injury mitigation. The current approach to mitigation flows from the judgment in *Janiak v. Ippolito*, [1985] 1 S.C.R. 146, 16 D.L.R. (4th) 1, which examined the duty to mitigate by medical treatment. In *Engel v. Salyn; Engel v. Kam Ppelle Holdings Ltd.*, [1993] 1 S.C.R. 306, 99 D.L.R. (4th) 401, Gonthier J. restated the principle of this rule as being "... where an injured party, who is fully competent and capable, unreasonably and arbitrarily refuses to receive treatment, the injured party may not force the defendant to bear the cost of this choice."

[335] Here, Dr. Schneider argues that Mr. Malinowski failed to mitigate his damages by his failure to follow medical advice, failure to undergo certain rehabilitation treatments, his excessive alcohol consumption, and his failure to re-train or take employment opportunities.

[336] More recently, Justice Fish, in *H.L. v. Canada (Attorney General)*, 2005 SCC 25, [2005] 1 S.C.R. 401, applied the *Janiak v. Ippolito* analysis where a defendant argued that various failures on the part of the plaintiff to re-educate and rehabilitate meant that plaintiff had not met his obligation to mitigate:

134 The onus rests on the defendant to prove that the plaintiff failed to mitigate his loss: Janiak v. Ippolito, [1985] 1 S.C.R. 146, at p. 163. Here, the trial judge concluded that the Crown led no evidence on the issue of mitigation. The Court of Appeal pointed to H.L.'s failure to upgrade his education and training as well as his failure to enter rehabilitation as evidence that he failed to mitigate his loss (para. 232).

135 H.L. testified that he failed to upgrade his education because he had a poor memory and dropped out of an auto mechanics course after two months. This is consistent with the trial judge's finding that H.L.'s alcoholism, poor self-image and lack of confidence affected his ability to learn a trade and his ability to find and keep a job. This does not point to a failure to mitigate. And though the record is essentially silent regarding H.L.'s efforts at rehabilitation, it appears from his evidence at trial that he was at least then making an effort to abstain from any further consumption of alcohol.

136 Since the evidence as to H.L.'s mitigation of his damages was inconclusive at best, Canada's burden had not been discharged. ... [Emphasis added.]

[337] In this case Dr. Schneider has entered evidence that he argues indicates Mr. Malinowski failed to mitigate the damages that resulted from his negligence. I disagree. I instead conclude that the combination of Mr. Malinowski's intellectual abilities and aptitudes, coupled with his post-injury condition, means that Mr. Malinowski is essentially unemployable. Emergence of CES, and the ongoing, permanent symptoms it caused, meant Mr. Malinowski was never going to work again, no matter his efforts to rehabilitate or re-educate. His post-injury conduct is therefore irrelevant for the question of mitigation.

D. Specific Damage Claims

1. Non-pecuniary Damages

[338] An injured party is entitled to damages to compensate for reductions in the person's quality of life, which include pain and suffering, loss of amenities, and reductions in life expectancy, which are usually grouped as a "composite award" for non-pecuniary damages: *Andrews v. Grand & Toy Alberta Ltd.*

[339] The parties have taken the approach that Mr. Malinowski's non-pecuniary damages can best be determined by comparison with awards to other persons who have received pain and suffering damages following a CES injury. The relevant facts are summarized below, along with the damages awarded, adjusted to 2010 equivalents:

Mr. Malinowski:

- ***Rogers v. Grypma***, 2001 ABQB 958, 304 A.R. 201 - CES was followed by ongoing dysfunction to one leg, spasms and sudden pains in the left side, reduced perineal sensation, and complicated by upper-body injuries from a fall caused by the CES injury. He was awarded general damages of \$201,316.00.

Dr. Schneider:

- ***Aminullah v. Fouroughy***, [2004] O.T.C. 495, 131 A.C.W.S. (3d) 656 (Ont. Sup. Ct. J.) - CES resulted in severe immediate impediment, permanent back dysfunction and pain, permanent leg motor and sensory impairment, sexual dysfunction and an ongoing requirement for self-catheterization. The plaintiff also reported family and social difficulties as a consequence of the injury. He was awarded general damages of \$143,126.00;
- ***Boothman v. Poirier***, [2005] J.Q. no 1541, 2005 CarswellQue 601 (Qc.C.S.) - Although no liability was found, the court evaluated general damages at \$119,339.00; CES had resulted in a permanent disability of 24-42%, hospitalization for 20 days, and permanent inability to lift heavy objects and engage in certain sporting activities;
- ***Duguay v. LeBaud*** (1996), 177 N.B.R. (2d) 321, 61 A.C.W.S. (3d) 700 (N.B.Q.B.) - A CES injury led to ongoing lower back pain, impaired sexual function, and complete bowel and bladder dysfunction. The plaintiff required a colostomy and an ileostomy that surgically removed parts of her digestive system. She was awarded general damages of \$163,442.00;
- ***Rogers v. Grypma***, *supra*;
- ***Sambell v. Hudago Enterprises Ltd.***, [1990] O.J. No. 2494 (QL), 1990 CarswellOnt 2877 (Ont. Ct. J. (Gen. Div.)) - A CES injury led to long-term back movement and sitting difficulty, and ongoing bladder dysfunction. The plaintiff was awarded damages of \$203,516.00;
- ***Skinner v. Royal Victoria Hospital***, [1994] O.J. No. 2002 (QL), 1994 CarswellOnt 3397 (Ont. Ct. J. (Gen. Div.)) - A man leapt out of a hospital window and fell several stories. He suffered a wide array of injuries to his legs and feet, and CES that caused

partial paraplegia, ongoing lower body, bladder, and bowel pain. He was awarded general damages of \$337,000.00.

[340] Dr. Schneider takes the position, and I agree, that the facts of *Skinner v. Royal Victoria Hospital* are sufficiently different to make that damage award of limited relevance. Instead, Dr. Schneider suggests *Sambell v. Hudago Enterprises Ltd.* describes injuries most comparable to those of Mr. Malinowski, but notes that other injured persons who received comparable or lower non-pecuniary damages awards (*Rogers v. Grypma*, *Aminullah v. Fouroughy*) had ongoing health issues (including self-catheterization) that are not required by Mr. Malinowski. Similarly, the health consequences to Mr. Malinowski are considerably less severe than the injured plaintiff in *Duguay v. LeBaud*, who lost much of her digestive system.

[341] Dr. Schneider suggests a non-pecuniary damages award of between \$158,000.00 and \$171,000.00 is appropriate, while Mr. Malinowski seeks \$250,000.00.

[342] The variations in non-pecuniary damage awards for CES injuries should reflect the different consequences of the injuries sustained. CES injury can be divided into two parts, immediate and long-term effects. I conclude that most CES injuries lead to comparable and intense dysfunction and pain during the period that follows the injury, but that long-term deleterious effects can be quite variable. The facts of the various identified cases are quite diverse, and not easy to rationalize. I would expect that long-term medical effects such as catheterization would warrant higher awards; however, certain cases which involve very severe permanent medical effects, such as *Duguay v. LeBaud*, led to lower awards.

[343] I conclude that Mr. Malinowski's ongoing dysfunction falls closer to the lower end of the CES effects. In particular, he has regained significant control over his bladder and bowel. While experts who examined Mr. Malinowski comment he is unable to sit or stand for extended periods, he nevertheless showed significant functionality and was able to sit in the witness box for extended periods and confirmed that he has been able to take long trips (eg, to Poland) by plane, as well driving trips for extended periods. That is not to say that Mr. Malinowski is malingering; rather that he has experienced fewer ongoing deleterious effects than many of the other persons who have received damages for CES injuries. I therefore award \$158,000.00 in non-pecuniary damages, the low end of the spectrum suggested by the cases.

2. Income and Earning Losses

[344] I have previously concluded that, if had he not been injured by Dr. Schneider's negligence, Mr. Malinowski:

1. would have continued his employment as an electrician after a three month recovery period,
2. would have worked half of a full-time workload until his retirement, and

3. would not have undergone career advancement beyond the second year apprentice union electrician pay scale.

[345] The parties each provided economic analyses prepared by their respective experts. These economic reports disagree on many grounds, and neither provides data that matches the precise set of conclusions listed above.

[346] I invite the parties to re-calculate Mr. Malinowski's past and future income losses, and to assist that calculation I make the following findings of fact:

1. 'fringe benefits' would be available to Mr. Malinowski as he worked, for a total of 1.98% of his gross income, which is derived from 2005 Statistics Canada supplementary Labour Income data for Alberta (1.45% for work allowances, 0.53% for private pension plan income);
2. future return rates are assumed to be 6%, a rate that reflects a cautious investment strategy;
3. an average future wage growth of 0.5%, which is an average for Alberta that takes into account historic variations; and
4. Mr. Malinowski would have continued to work until his retirement at age 62.

[347] Mr. Malinowski advanced evidence that on average trades people retire before age 65, usually at age 62-63, and calculated Mr. Malinowski's future work income on that basis. I agree that is a valid approach.

[348] Mr. Malinowski's economist expert commented at length on possible or probable economic developments, and the generally low return on more secure investments available at the present time, arguing that future economic growth will likely be limited. I put limited weight on those submissions on the basis that it is plain to all that the world economy has undergone dramatic changes in the recent past, and that any future projection is, at best, highly speculative. Economically, these are unsettled times. Instead, I have generally favoured expert evidence that has used longer-term economic averages, and trade-specific information. I prefer longer sample periods to take address both the present economic uncertainty and the historic cyclic economic pattern of 'boom and bust' that has proven typical for Alberta. Dr. Schneider's expert also provided average investment return values for mutual funds in Canada, and for income that flows from Canada Savings Bonds. The 50 year average return for Canada Savings Bonds is 3.5%, while over the past 20 years bond mutual funds have returned income at a rate of 6.94%.

[349] Counsel for the Defendant noted that Mr. Malinowski's investment knowledge falls to the lower end of the spectrum, and that a more sophisticated mutual fund based investment return rate is less suitable for a person with Mr. Malinowski's characteristics. Given the size of Mr. Malinowski's damage award and that he is assisted by experienced legal counsel, I conclude

that the damages in this case will be invested with the assistance of financial planners who will provide a balanced and conservative investment scheme, probably involving a mix of mutual funds and other conservative investments. On that basis I conclude Mr. Malinowski's award for lost future income should be calculated using a 6% return on investment.

[350] If the above findings of fact do not provide an adequate basis for the parties to calculate Mr. Malinowski's past and future income, I invite them to indicate what other facts are necessary to re-calculate Mr. Malinowski's employment income losses.

3. Loss of Housekeeping Services

[351] The parties agreed on the general legal principles that drive calculation of damages to compensate for loss of Mr. Malinowski's housekeeping capacity. The Court awards damages based on the incapacity of an injured person to complete housekeeping and household tasks that the injured person had previously completed: *Rogers v. Grypma*, 2001 ABQB 958, 304 A.R. 201; *Tat v. Ellis*, 1999 ABCA 12 at paras. 27-31, 228 A.R. 263 (Alta. C.A.).

[352] Dr. Schneider submits that, where housekeeping costs are derived from rates charged by professional workers, the cost of housekeeping services derived from those professional rates should be discounted by 25% to account for "greater hired worker productivity". This discounted cost approach was introduced by Rooke J. (as he then was) in *Thibert v. Zaw-Tun*, 2006 ABQB 423 at paras. 257, 261-62, 64 Alta. L.R. (4th) 41.

[353] The base-line for this test is to determine the pre-injury extent of Mr. Malinowski's household activities. He reports that prior to the injury he lived with his parents and son, and at that point:

- prepared lunches,
- cleaned including walls, windows, refrigerator, and stove,
- completed interior maintenance and repair,
- shopped for groceries, and
- painted.

[354] Mr. Malinowski indicates he did not complete any household work between the date of the injury and early 2007 (approximately five years). When his wife began to work in 2007 he resumed cooking, shopped for groceries, ran errands, paid bills, vacuumed, dusted, and cleaned mirrors and windows. He continues to do so. His wife does laundry and cleans bathrooms, bedding, the refrigerator, and the stove.

[355] Mr. Malinowski was examined by Ms. Chilton to determine his physical abilities. During that test Mr. Malinowski reported pain and exhibited limitations to his range of motions. He did not complete the tests with Ms. Chilton, complaining of pain and asserting that the tests involved activities his doctor had prohibited.

[356] Ms. Chilton concluded that Mr. Malinowski was unable to perform household tasks between February 2002 and the end of 2006, but from 2007 he completed a range of household tasks. Ms. Chilton noted that Mr. Malinowski takes much longer than normal to perform his current household tasks. Ms. Chilton then derived lost household services on the basis of Statistics Canada data on average time commitments by Canadians, and presumed that Mr. Malinowski's conduct was typical for a single male (2002-2006), and a married male (2007 onward), with complete incapacity for 2002-2006, and a 50% reduction in capacity starting in 2007. Ms. Chilton explains in her expert report the 50% reduction in this way:

The factor of 50% for the period of time starting on January 1, 2007 and ending on September 20, 2052 recognizes that Mr. Malinowski started to perform some household tasks on January 1, 2007 but takes much longer than normal to perform those tasks.

[357] I note that Ms. Chilton has concluded that *slow* completion of household tasks is the basis for Mr. Malinowski being only able to complete 50% of the average married male's domestic activities. That is not the appropriate test. Rather, the Court calculates the cost to *replace* household labour previously provided by the injured person. To use the language of the Saskatchewan Court of Appeal in *Fobel v. Dean* (1991), 83 D.L.R. (4th) 385, 93 Sask.R. 103 (Sask. C.A.), leave denied [1992] 1 S.C.R. vii, 87 D.L.R. (4th) vii, cited with approval in *Tat v. Ellis* at paras. 28-30, the relevant variable is a "loss of capacity".

[358] I can imagine instances where 'slowed' domestic activity could lead to a loss of domestic work capacity that warrants an award of damages. For example, where a person was injured and post-injury took twice the time to complete domestic tasks, and that injured person had a full-time job, then it may be very reasonable to conclude that it would be impractical for the injured person to spend many hours per day on domestic tasks. Mr. Malinowski's situation is quite different. I have concluded that post-injury he is no longer employable. Thus he has the entire day available to engage in household tasks at a tempo appropriate to his condition. Ms. Chilton's evidence was that a married male of 25-44 worked 1.1 hours per day on household tasks. That amount decreased to 0.9 between the ages of 45-65, and then increased to 1.9 hours per day after age 65. Based on those average amounts the otherwise unoccupied Mr. Malinowski would have a great deal of time available to devote to those domestic and housekeeping activities which he indicates he can complete.

[359] This approach to Mr. Malinowski's loss of housekeeping damages parallels the scheme adopted by Rooke J. in *Thibert v. Zaw-Tun*, that non-pecuniary damages result when an injury results in a person being able to complete household tasks but with pain and discomfort, and/or longer time requirements. As such, compensation for the extra time required to complete

household tasks is subsumed in Mr. Malinowski's non-pecuniary damages claim, see also: *Park v. Heimbeckner*, 2007 ABQB 386 at para. 25, 161 A.C.W.S. (3d) 75; *Mahe v. Boulianne*, 2008 ABQB 680 at paras. 111-14, 3 Alta. L.R. (5th) 89, varied on other grounds 2010 ABCA 32, 474 A.R. 223; *Russell v. Turcott*, 2009 ABQB 19 at paras. 364-65, 64 C.C.L.T. (3d) 11.

[360] Dr. Schneider acknowledges that Mr. Malinowski may have ongoing housekeeping needs that require compensation, and suggests the amount of \$96.54 per month, which is what the WCB pays him for necessary services. Dr. Schneider notes this amount is based on an assessment of his reported needs. I agree, this amount is adequate to cover any residual loss of housekeeping services. The award that results should be calculated using the economic information in the preceding part of the judgment. This amount will also provide a basis for Mr. Malinowski's loss of housekeeping activity between January 1, 2007 and the trial, as adjusted for GST, inflation, and judgment interest.

[361] In the absence of better evidence, Ms. Chilton's statistical data of one hour of housework per day will be the basis on which to calculate Mr. Malinowski's lost household contributions between June 1, 2002 and December 31, 2006 (1675 days). The parties each entered expert reports by economists that comment on the cost of housekeeping support. Mr. Aldridge offered a value of \$25.00 per hour for replacement housekeeping costs from a survey of Edmonton and Calgary household service providers. In contrast, Mr. Benning suggested an hourly value of \$14.00 which correlates with average wage values reported in the 2009 Alberta Wage and Salary Survey for homemakers, housekeepers, light duty cleaners, and landscaping and grounds maintenance labourers.

[362] I prefer the \$25.00 rate suggested by Mr. Malinowski. That figure was derived from a survey of housekeeping services that account for the city in which the services were offered, and that city-specific analysis disclosed significant city to city variations in the cost of housekeeping services. The significant cost variations suggest that provincial averages from the Alberta Wage and Salary Survey may conceal significant regional variations. In addition, I agree with the approach taken by Justice Rooke in *Thibert*, that a discount is appropriate to reflect greater efficiency on the part of professional house keepers and the inclusion of overhead and profit items in the commercial cost of such services. Therefore, the \$25.00 per hour rate suggested by Mr. Malinowski will be reduced by 25% as suggested by Dr. Schneider, based on the reasoning employed Justice Rooke.

[363] Using values provided in the expert of Mr. Aldridge, report I conclude the loss of housekeeping services for Mr. Malinowski between June 1, 2002 and December 31, 2006 leads to damages of \$50,840.00, before the discount of 25%, which is to be applied for the reasons given above resulting in a discounted amount of \$38,130.00.

[364] Mr. Malinowski seeks a separate award for lost house painting services formerly completed by him. Dr. Schneider argues that house painting should be included in the home maintenance component of ongoing house keeping duties, noting that the Statistics Canada daily

house work averages include house maintenance. I agree, and reject that additional claim for both the pre- and post-trial periods.

4. Future Cost of Care

[365] Mr. Malinowski has broken down his claim for future care into a number of items. At trial the parties came to some consensus as to their appropriate quantum.

a. Medication

[366] Mr. Malinowski claims annual costs of \$5150.05 for Oxycontin, APO Napro NA, and Lorazepam, and those amounts are not disputed by Dr. Schneider. Mr. Malinowski also seeks a lump sum of \$16,711.00 for Viagra, but did not provide documentary evidence of his use of that pharmaceutical to verify the damages claimed. Ms. Chilton excluded that item from her care cost analysis on that basis, and I concur. Mr. Malinowski has not proven to a balance of probabilities the quantum of his claim for the cost of Viagra.

b. 'Depends' Adult Diapers

[367] Mr. Malinowski claims \$500.00/year to pay for the adult diapers that he uses. Dr. Schneider does not dispute this claim.

c. Swimming Passes

[368] At trial the parties agreed that Mr. Malinowski's cost to use a community swimming pool for exercise and rehabilitative procedures was appropriate, and would require an annual membership that cost \$340.00 until Mr. Malinowski was 60 years of age, and \$276.00 afterwards.

d. Grab Bars and Reacher

[369] Mr. Malinowski requires grab bars to assist his movement, which are a one-time cost of \$129.90 in 2015. Mr. Malinowski requires a reacher which costs \$35.00 to assist him in accessing objects in his home. The reacher will be replaced every 15 years. I confirm these amounts.

e. Back Belt

[370] Mr. Malinowski presently has and uses a back belt. Dr. Schneider challenges the requirement for this device in the absence of evidence of its efficacy. In light of his temperament, I conclude that Mr. Malinowski's current use of a back belt provides adequate evidence that he obtains benefit from a back belt. The cost of a back belt is \$250.00, it requires replacement every five years, and the first replacement will occur in 2012.

f. Access to a Hot Tub

[371] Mr. Malinowski seeks damages to allow purchase of a hot tub in 2015, and annual maintenance costs for that device. He reports that he experiences benefits to manage pain when using hot springs, and on that basis Ms. Chilton recommends that he purchase and install a hot tub when he and his wife move into their new home in 2015.

[372] Dr. Schneider notes that Mr. Malinowski has access to a hot tub at his community swimming pool and suggests that would provide a reasonable and much less costly alternative, as would simply having Mr. Malinowski taking hot baths in a conventional tub. I agree, and note that Mr. Malinowski's evidence as to the benefit of a hot tub is anecdotal, rather than based on medical advice.

g. Summary, Future Cost of Care

[373] At trial the parties' experts agreed on which of the identified items above would be subject or exempt from GST and eligible for medical expense tax credits. My previous conclusions as to future income return rates and economic growth apply equally to calculation of Mr. Malinowski's future cost of care award.

5. WCB

[374] If found liable, Dr. Schneider has conceded the quantum of WCB costs:

1. past medical aid costs - \$69,000.00,
2. past rehabilitation costs - \$43,000.00, and
3. special damages - \$14,500.00,

which total \$126,500.00.

6. Special Damages

[375] As I have previously noted, the parties have agreed on the quantum of special damages due to Mr. Malinowski.

E. Damages - Conclusion

[376] In summary, Mr. Malinowski is awarded:

1. non-pecuniary damages of \$158,000.00;

2. past and future income losses, as calculated following the findings in Part B;
3. past loss of housekeeping capacity of:
 - a. \$38,130.00 between June 1, 2002 and December 31, 2006, and
 - b. \$96.54 per month between January 1, 2007 and the trial;
4. future loss of housekeeping capacity, as calculated following the findings in paragraph 360;
5. future cost of care costs, as calculated following the findings in part D; and
6. WCB costs of \$126,500.00.

VIII. COSTS

[377] If the parties cannot agree on costs they can bring the matter back before me by contacting my assistant within 30 days of receiving this Judgment.

Heard between March 1st and April 9th, 2010.

Dated at the City of Edmonton, Alberta this 24th November, 2010.

D.L. Shelley
J.C.Q.B.A.

Appearances:

Alan R. Gray and Shannon L. Matheson
Weir Bowen LLP
for the Plaintiff

Karin E. Buss and Richard Secord
Ackroyd LLP
for the Defendants

SCHEDULE "A"

Plaintiff's Experts:

Dr. Christopher Bruce and Mr. Derek Aldridge - economists: evaluation of income loss and other pecuniary damages.

Dr. Robert E. Betzner - general medical practitioner: Mr. Malinowski's condition on December 11, 2002 and February 14, 2003.

Dr. Heinrick Michael Carstensen - chiropractor: standard of care, including the standard of disclosure expected of a chiropractor in 2002.

Ms. Heather Chilton - occupational therapist: functional capacity, loss of capacity to perform household services, and cost of care.

Dr. Salim M. Esmail - orthopedic surgeon: Mr. Malinowski's condition on March 16, 2007.

Dr. Michael Freeman - epidemiologist and chiropractor: diagnosis of disc injuries and associated neurological symptoms, including CES.

Mr. Brian Hawrelak - vocational expert: vocational evaluation, rehabilitation, and labour market analysis.

Mr. Peter Huijbregts - physiotherapist: diagnosis and cause of disc injuries and sacroiliac joint sprains.

Dr. Brian Knight - anaesthesiology and pain medicine specialist: causes of Mr. Malinowski's post-injury pain.

Dr. Krishna Kumar - neurosurgeon: cause of Mr. Malinowski's injuries, his prognosis, alternative treatment of Mr. Malinowski, and the standard of care for a chiropractor in diagnosing, advising, and treating of a patient.

Dr. Paul Moreau - orthopedic surgeon: Mr. Malinowski's condition on June 5, 2009.

Dr. Wayne Anthony Pisesky - orthopedic surgeon: Mr. Malinowski's condition on March 22, 2007.

Dr. Zbigniew Sawicki - general medical practitioner: Mr. Malinowski's condition on February 27, 2002.

Dr. Gerald Todd - urologist: Mr. Malinowski's condition on April 18, 2002.

Experts for Dr. Schneider :

Mr. Darren Wayne Benning - economist: evaluation of income loss and other pecuniary damages.

Dr. William Mark Erwin - chiropractor: diagnosis and management of low back pain and lumbar disc disease, the anatomy and biology of intervertebral discs, and the pathogenesis of disc disease, degeneration and disc herniation.

Dr. Donald Henderson - chiropractor: chiropractic care, including the standard of care for a chiropractor.

Dr. Harold E. Hoffman - occupational medicine: cause, rehabilitation, prognosis, and treatment of injury.

Dr. Allan Mandel - psychological, vocational, and disability assessment: cause, rehabilitation and treatment of injury.

Dr. Bruce Symons - chiropractor: biomechanics of chiropractic manipulation of the lumbar spine.

Dr. Adrian Mainwaring Upton - neurologist: operation and malfunction of nervous systems, the cause and progression of CES, the process and effects of intervertebral disc herniation, and the cause of Mr. Malinowski's injuries.