



MEDICAL MALPRACTICE

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Causation – Application: The Difficulties Associated with Applying the “But For” Test

INTRODUCTION

This is part 6 of our 8-part series on the anatomy of a medical negligence claim within which we review the following topics:

- The Doctor-Patient Relationship and Duty of Care (*the Verdict* Issue 163 – Winter 2019)
- Consent (*the Verdict* Issue 164 – Spring 2020)
- Standard of Care (*the Verdict* Issue 165 – Summer 2020)
- Defences to a Claim of a Breach of the Standard of Care (*the Verdict* Issue 166 – Fall 2020)
- Causation – Basic Principles (*the Verdict* Issue 167 – Winter 2020)
- **Causation – Application**
- Expert Evidence
- Disclosure of Errors

In previous articles, we outlined the essential criteria in a medical negligence action including the requirements to prove a duty of care owed by the defendant to the patient, a breach of the standard of care on the part of the defendant and a causal link between the breach of the standard of care and the plaintiff's injuries. The previous article in our 8 part series discussed the basic rules for establishing causation. In this article, we will demonstrate some examples of how the causation principles are applied in medical negligence cases.

THE PROBLEMS WITH NEGLIGENT OMISSIONS

A commonly arising issue in medical malpractice claims is the speculative analysis that must arise when the negligent act is, in fact, a failure to act. This issue can, for example, be the result of a failure to diagnose, a failure to react promptly to concerning symptoms, a failure to call for help, etc. In such circumstances, the causation question will be: had the defendant properly diagnosed, reacted, called for help, what would have occurred? Since they didn't perform those acts, what would have happened is, to a certain extent, speculation. In this situation, the courts have adopted a two-part approach to causation. This two-part approach can be seen in the English case of *Bolitho v City and Hackney Health Authority*.¹

In *Bolitho*, the patient was a young child who was in hospital with a respiratory problem. While in hospital he was witnessed having two respiratory incidents before a final catastrophic respiratory collapse that led to cardiac arrest, brain damage and, ultimately, death. The physicians failed to attend when advised by the attending nurse of the initial respiratory incidents. The causation question became: what would have occurred if the physicians had attended when they should have? If the response would have been intubating the patient, the boy would have remained sufficiently oxygenated and would not have suffered his brain injury. To answer that question, the House of Lords asked two questions. The first question to ask is what the physician in question would have done. Dr. Horn was one of the physicians who should have attended. If Dr. Horn had attended earlier, would she have intubated the boy in light of his respiratory incidents? Her evidence at trial was that she would not have done so. This does not end the inquiry, however. The court must then address the next question: would the decision not to intubate have been negligent? Worded differently, the court must consider not only what the physician in question would have done but also what

a *reasonably competent* medical practitioner in the same situation would have done. As stated by Lord Browne-Wilkinson, “A defendant cannot escape liability by saying that the damage would have occurred in any event because he would have committed some other breach of duty thereafter.”² The plaintiff can thus succeed on a causation analysis by proving *either* that the physician in question would have performed the required act to avoid the injury *or* even if that physician would not have done so, any reasonably competent medical practitioner in those circumstances would have.

This analytical framework was adopted and applied by the Court of Appeal in *Briante v. Vancouver Island Health Authority*.³ The significant point in that case was that the Court of Appeal applied the *Bolitho* analysis in circumstances which could be seen as a significant expansion of the rule. In *Bolitho*, the issue was whether the defendant himself would have acted negligently had he responded to the call from the nurses. In *Briante*, the issue was whether a third party physician, not a defendant, would have acted negligently. The apparent extension of the *Bolitho* test may provide plaintiffs counsel with an avenue towards proving causation in circumstances where a “down the road” actor, critical to proving success, testifies that he/she would not have acted in such a way as to “rescue” the plaintiff from the consequences of the negligence of the defendant. If the plaintiff can demonstrate that such a failure to “rescue” would have amounted to a breach of that player’s duty to the plaintiff, causation will still be proven.

INTERVENING CAUSAL ACT VS. FAILURE TO SAVE

Thompson et al v Toorenburgh et al,⁴ is not a medical malpractice case but does involve medical issues and it demonstrates another particular quirk of causation that can arise in the medical context. Thompson was a claim under the *Families Compensation Act*.⁵ The parties were involved in a motor vehicle accident. Mrs. Thompson was a passenger in a car that collided with the defendant’s vehicle. She was treated in hospital for a small laceration and abrasion. Unfortunately, Mrs. Thompson, unbeknownst to anyone at the time, was also developing acute pulmonary edema from the accident. She was discharged from hospital and attended a party where she began feeling unwell and ended up being unable to move or speak. It was common ground that without appropriate and speedy medical treatment, the pulmonary edema caused by the accident would have killed Mrs. Thompson. Had she simply collapsed and died at the party, that would have been the end of the matter. The complicating factor in this case was that Mrs. Thompson was rushed to hospital where she received treatment. Sadly, the physicians at the hospital failed, for two hours following her readmission, to recognize that she was suffering from pulmonary edema and to administer proper treatment. The treatments they did provide were at best ineffective and at worst harmful. By the time pulmonary edema was diagnosed and proper treatments initiated, it was too late and Mrs. Thompson passed away.

The defendants in *Thompson* argued that the inappropriate medical treatment was an intervening act which broke the chain of causation, such that their negligence in causing the car accident



did not cause Mrs. Thompson's death. The trial judge found that the medical treatment initially administered to Mrs. Thompson upon her readmission to hospital was inappropriate, that the inappropriate treatment may have hastened her death but did not cause it, and that pulmonary edema, resulting from the accident, was the cause of Mrs. Thompson's death. The trial judge and the BC Court of Appeal both distinguished between a failure to save Mrs. Thompson and an intervening act breaking the chain of causation. The physicians had failed to provide an *actus interveniens* that would have saved her life, but this was distinguishable from committing an *actus interveniens* that caused her death. As such, the Court of Appeal held that the chain of causation from accident to Mrs. Thompson's death was uninterrupted.

THE USE OF INFERENCE IN THE CAUSATION ANALYSIS

It is undisputed that causation must be proved using a "but for" test. The plaintiff, after establishing a breach of the standard of care, must prove, on a balance of probabilities, that "but for" that breach, the plaintiff would have avoided his or her injuries or those injuries would have been reduced. A common issue in this analysis is the medical or scientific certainty that must be reached before a plaintiff can be found to have surmounted the balance of probabilities hurdle.

The question becomes whether, taken together, the evidence is sufficient to allow an inference of causation or whether inferences do not meet the legal threshold.

*Rehak v McLennan*⁶ was one of the medical malpractice cases in which inferences of causation were discussed. The plaintiff was involved in a bicycle accident. The radiologist reviewing imaging of his shoulder failed to diagnose a fracture. The evidence showed that the plaintiff's original injury, from the bike accident, was significant and would have resulted in some unknown loss of function. The issue in the case was the extent to which his ongoing injuries were caused by the delay in undergoing surgery (due to the failure to diagnose the fracture in the first instance). This was an area of conflicting opinion amongst the experts. Had the radiologist properly diagnosed the fracture, the plaintiff would have undergone further assessment and treatment. This further assessment and treatment would have established the exact nature and extent of the plaintiff's original injury. Unfortunately, the failure to diagnose led to both a delay in treatment and an inability to distinguish between the severity of the original fracture and the problems caused by surgical delay. Thus, it was the defendant's negligence that hampered or defeated the plaintiff's ability to

prove that his loss was caused by the defendant. Keenan J. of the Ontario Court of Justice had the following to say on the issue:

“Applied to this case, the problem can be expressed this way. If the plaintiff is unable to tilt the scales because the conflicting opinions are of equal strength and one cannot be preferred over the other, is the plaintiff’s claim to fail? Applying the ordinary standard of burden of proof, the answer would be that the plaintiff must fail because to compensate the plaintiff would be to unfairly require the defendant to pay more than his proven responsibility. But where the reason for the plaintiff’s inability to provide the appropriate proof is the tortious act of the defendant, it would achieve an unjust result to deny the plaintiff recovery because of the uncertainty created by the defendant. In such a case I would consider that the ends of justice would not permit the tortious defendant to escape liability.”⁷

Keenan J. opted to resolve an uncertainty of proof to the benefit of the injured party not the tortfeasor. In such circumstances, he felt it appropriate, if necessary, to adopt a “robust and pragmatic” approach to causation and enable an inference to be drawn in support of the plaintiff’s claim.

*Goodman v Viljoen*⁸ is a good example of the complexities of causation in a medical malpractice claim. In *Goodman*, the plaintiffs were twin boys born prematurely who both developed cerebral palsy. In mid-August, 1995, when the Goodmans’ mother was pregnant with them, she contracted a urinary infection. The defendant, Dr. Viljoen, was her obstetrician. The following week, Mrs. Goodman awoke to a rush of fluid. She called Dr. Viljoen’s office and was told that the leakage was related to her urinary infection and that she should continue to take antibiotics. Dr. Viljoen did not advise Mrs. Goodman to come to his office for

an assessment, nor did he tell her to go to hospital immediately. Two days later, on August 18, 1995, Mrs. Goodman awoke feeling crampy. She went to see her family physician. The family physician, upon hearing her history over the week, told Mrs. Goodman to go immediately to the hospital. Upon arrival, the attending physician confirmed that Mrs. Goodman was in premature labour and her membranes had already ruptured. She was transferred to a tertiary care centre where her twins were born that day, premature at 29 weeks’ gestational age. The trial judge found that Dr. Viljoen breached the standard of care by not advising Mrs. Goodman to go to the hospital immediately when she reported fluid leakage. The issue on appeal was whether Dr. Viljoen’s breach caused the twins’ cerebral palsy. The complicating feature on the causation issue was the fact that the twins’ premature birth was not caused by Dr. Viljoen’s negligence.

Cerebral palsy is a movement disorder caused by abnormal brain development or damage to the developing brain. Cerebral palsy can arise from a multitude of causes, which may or may not be identifiable in individual cases. In this case, the experts agreed that the twins’ cerebral palsy could be attributed to periventricular leukomalacia. Periventricular leukomalacia, in simplistic terms, involves inadequate blood supply to the area of a baby’s brain known as the watershed zone. Of particular note, periventricular leukomalacia is the most common cause of brain injuries in premature infants and babies born before 34 weeks’ gestation are more prone than other babies to suffering periventricular leukomalacia. None of this was contentious in the *Goodman* case. What was contentious was whether the Goodman twins suffered periventricular leukomalacia as a result of Dr. Viljoen’s negligence or whether they were destined to suffer periventricular leukomalacia as a result of their premature birth which, as mentioned above, would have occurred regardless of the defendant’s care.

The plaintiff’s case was presented as follows: if Dr. Viljoen had met the standard of care, Mrs. Goodman would have been sent

to hospital immediately after she reported a leakage of fluid on August 16. When she arrived in hospital the attending physician would have diagnosed premature labour and a rupture of membranes. At that time, she would have been given at least two doses of antenatal corticosteroids before she gave birth on August 18. As it happened, Mrs. Goodman did not arrive in hospital until August 18, and only received a single dose of antenatal corticosteroids, two or three hours before the twins were born. These findings of fact were accepted on appeal. The purpose of the antenatal corticosteroids is to replace the surge of hormones that full term babies experience at birth that is lacking in premature babies. These hormones accelerate the maturation process and allow babies to survive and thrive in the outside world. Antenatal corticosteroids administered before birth provide short term benefits to premature babies. In some situations, those short term benefits can create long term benefits by avoiding short term issues that can cause long term problems. The appeal focused on whether the plaintiffs had proven that “but for” the failure to receive a full course of antenatal corticosteroids, the twins would have avoided or materially reduced their injuries.

No expert on either side could find a study that showed a correlation between the administration of antenatal corticosteroids prior to birth and a reduction of the premature baby’s risk of periventricular leukomalacia. There was no direct scientific evidence showing this link in the twins. The defendants argued that the plaintiff’s claim must fail in the absence of direct scientific proof of causation. The plaintiffs argued that their claim was established on a balance of probabilities standard. Two experts opined on the issue for the plaintiffs, a neonatologist and a specialist in maternal fetal medicine. Their opinions were that if Mrs. Goodman had received a full course of antenatal corticosteroids two days before the twins were born, they would not have suffered cerebral palsy, or their cerebral palsy would have been much less severe. These opinions were based on a “biological plausibility”. Looking at the known benefits from administration of antenatal corticosteroids, the short term benefits of reducing conditions known to cause cerebral palsy, data that was suggestive but did not reach the level of statistical significance, and the known maturation effect on tissue in other areas of the body, the plaintiffs argued that it could, and should, be inferred that antenatal corticosteroids would assist in the maturation of the arteries located in the watershed zone of the twins’ premature brains and reduce or eliminate the risk of periventricular leukomalacia and resulting cerebral palsy.

The Ontario Court of Appeal found that a “robust and pragmatic approach” to causation was permissible. They articulated what that approach means:

“The robust and pragmatic approach describes the manner in which evidence is to be evaluated, not some special burden of proof... The robust and pragmatic approach takes into account the nature of the factual issues underlying the causation question and the kind of evidence that the parties are reasonably capable of producing on those issues. The approach

acknowledges that the causation inquiry is essentially a practical one based on the entirety of the evidence and made with a view to determining whether the plaintiff has established causation on the balance of probabilities and not to a scientific certainty. Clearly, as counsel for the appellant urges, the robust and pragmatic approach does not countenance speculation or resort to common sense to determine issues that require expert knowledge. To resort to speculation or the misuse of common sense is to misapply the robust and pragmatic approach.”⁹

The Court of Appeal accepted the trial judge’s finding of causation based on the “biological plausibility” theory of causation. Inferences of causation can be made in the appropriate circumstances. Scientific certainty is not required to prove causation. That said, there will always be issues regarding how much evidence is required to get over the balance of probabilities hurdle, even with the benefit of an inference.

CONCLUSION

At first glance, the appropriate legal test for causation appears straightforward: proof that on the balance of probabilities, the plaintiff’s injuries would have been reduced or eliminated “but for” the negligent act or omission of the defendant. In reality, this analysis is often complex and foggy. In the medical context, piecing out what would have occurred in any event as a result of the plaintiff’s underlying medical condition, establishing likelihoods within the bounds of current scientific and medical knowledge (where much is still unknown), and problems of omissions leading to failure to conduct the tests that would have answered the causation question are just some examples of how this analysis can be cumbersome and arduous. The challenges must be expected, require extensive effort and understanding of the medical issues, and may often be overwhelming to the case. In medical malpractice cases, it is not unusual for claims to fail despite a clear breach of the standard of care. Proving causation can simply be impossible in some cases. **V**

1. [1997] 3 WLR 1151 House of Lords
2. *Supra* at p 5
3. 2017 BCCA 148
4. [1973] BCJ No 821
5. R.S.B.C. 1960, c. 138
6. [1992] OJ No 1202
7. *Supra* at p 5
8. 2012 ONCA 896
9. *Supra* at para 76