CITATION: *Sommerville v. Fine and Brown*, 2021 ONSC 5638
COURT FILE NO.: CV-10-410126
DATE: 20210819

ONTARIO

SUPERIOR COURT OF JUSTICE

BETWEEN:	)	
	)	
ANDREW SOMMERVILLE	)	*Aleks Mladenovic and Stephen Birman*, for
	)	the Plaintiff
Plaintiff	)	
	)	
– and –	)	
	)	
GEOFFREY FINE and STEPHEN	)	*Sam Rogers and Bonnie Greenaway*, for the
BROWN	)	Defendant, Geoffrey Fine
	)	
Defendants	)	
	)	
	)	
	)	**HEARD: February 1-5, 8-12, 16, 19, 2021**

VELLA J.

REASONS FOR JUDGMENT

OVERVIEW

[1] In or around midnight on September 21, 2008, the plaintiff, Andrew Sommerville (“Andrew”), was involved in an altercation in which he was stabbed multiple times by an assailant. Andrew was taken by ambulance to the emergency department of the Trillium Health Centre (“Trillium Hospital”) where he was evaluated and treated by the defendant, Dr. Geoffrey Fine, after being triaged.

[2] Andrew alleges that Dr. Fine breached his standard of care in the assessment and treatment of his penetrating wound to his patellar tendon and knee joint and that the breach resulted in delayed diagnosis and treatment, as a result of which he has had a poor outcome and suffered damages.

[3] More particularly, Andrew alleges that by virtue of the knife attack, he suffered a stab wound at the lower portion of his patella (known in plain language as the kneecap) resulting in a total transection or, in the alternative, a partial transection of his patellar tendon.

[4] The patellar tendon, in turn, according to the experts who testified, is the soft tissue fibrous structure that attaches the lower part of the patella to the upper part of the tibia and is part of the leg's extensor mechanism. The patellar tendon allows a person to extend their leg at the knee. The complete loss of the patellar tendon means that a person cannot walk on that leg.

[5] In addition, Andrew alleges that he suffered a penetrating wound to his knee joint as a result of this stab wound.

[6] The action was dismissed on consent against the defendant, Dr. Brown, and the trial proceeded against Dr. Fine only.

ISSUES

[7] The issues to be determined are as follows:

a) Did Andrew suffer a partial or complete transection of the patellar tendon in the early morning of September 21, 2008?

b) Did Dr. Fine meet the standard of care of a reasonably prudent emergency physician practicing in 2008 at a suburban community hospital when he assessed, treated, and discharged Andrew in the early morning of September 21, 2008 at the emergency department of the Trillium Hospital?

c) If Dr. Fine's conduct and/or omissions fell below the applicable standard of care, then did Dr. Fine's negligence cause damage to Andrew?

d) Was Andrew contributorily negligent?

[8] The parties have already agreed as to the quantum of damages should liability be established, and hence that issue was not before me.

[9] The parties submitted an agreed statement of facts relating to Andrew's follow-up assessment and treatment by Dr. Stephen Brown, who is no longer a defendant in these proceedings.

I. <u>Did Andrew present at Trillium Hospital with a Complete Transection, or a Partial Transection, of the Patellar Tendon?</u>

[10] An important factual issue here is whether Andrew suffered a complete transection/laceration or, rather, a partial transection/laceration of the patellar tendon in the early hours of September 21, 2008. This is critical since the experts on the standard of care issue agree that if Andrew, in fact, suffered a complete transection of the patellar tendon, then Dr. Fine fell below the standard of care expected of a prudent emergency physician practicing in a hospital emergency department in 2008, by reason of having failed to detect the complete transection. The respective opinions concluded that had Andrew suffered a complete transection of the patellar tendon on September 21, 2008, the basic leg extensor system test that Dr. Fine said he performed would have revealed a complete transection and that such a diagnosis would have been obvious.

[11] On the other hand, if Andrew suffered a partial transection of the patellar tendon, then the experts disagree as to whether Dr. Fine's conduct fell below the standard of care.

[12] This factual issue presents a particular challenge since the court was presented with extensive imaging relating to Andrew's knee, and a clinical picture dictated largely by the written clinical notes and records filed as exhibits for the truth of their content (by agreement of the parties, reflected in a joint documents agreement, and filed). These two sources of documentary evidence present challenges that are not always easily reconcilable.

[13] All of the expert witnesses also agreed on one further important point. By the time an MRI was taken of Andrew's knee, on November 12, 2008, he clearly had a completely transected patellar tendon as shown on this MRI. They also agree that as at September 21, 2008, Andrew had likely suffered at least a tear of the patellar tendon as a result of the knife wound to the lower part of the right knee.

[14] Accordingly, I will first consider the factual issue of whether or not Andrew likely suffered a complete or, in the alternative, a partial transection of the patellar tendon on September 21, 2008. As van Rensburg J.A. stated in dissent in another medical malpractice case, *Armstrong v. Royal Victoria Hospital*, 2019 ONCA 963, 452 D.L.R. (4th) 555 at para. 138:

> …at times the court will need to determine "what happened" (that is, the factual cause of the plaintiff's injury) in order to resolve whether the standard of care has been breached. Determining factual (and not "but-for") causation is sometimes necessary before a conclusion can be reached on whether there has been a breach of the standard of care.

[15] The Supreme Court of Canada, in overturning the decision of the majority in *Armstrong*, adopted van Rensburg J.A.'s dissent in its entirety.

[16] The plaintiff submits that I can make this determination solely on the basis of the radiological imaging evidence that conclusively demonstrates that the laceration of Andrew's patellar tendon was consistent with a knife clean cut as opposed to a frayed rupture, and that this laceration was complete as of September 21, 2008.

[17] The defence took a completely different approach to demonstrating its position that Andrew did not have a completely transected patellar tendon as at September 21, 2008. Dr. Fine's position is that the patellar tendon was only partially transected as of September 21, 2008 and that it became fully transected sometime later (and by November 12, 2008 as revealed by the MRI).

[18] The defence advances the proposition that in making this factual determination, the court must also look at the clinical picture relating to Andrew's ability, or inability, to extend his knee and this requires a review of the contemporaneous clinical observations and findings of the health care professionals who assessed and/or participated in the management of Andrew's right knee injury up to the November 12, 2008 MRI. They argue that when the clinical record is considered, the contemporaneous findings of the health care providers, including most notably Dr. Fine, the emergency nurses, Dr. Brown, and Dr. Nagpal, are consistent with a finding that Andrew's patellar

tendon was only partially transected as at the time of Dr. Fine's assessment and treatment of Andrew.

[19] I will approach this factual finding by an assessment of the credibility and reliability of Dr. Fine and Andrew's respective evidence as to the events that transpired during Andrew's attendance at Trillium Hospital's emergency department in the early hours of September 21, 2008. This finding will also require an assessment of the expert evidence led in relation to the images that have been taken of Andrew's knee at various points in time, and the clinical notes and records of the various treating health care professionals who had involvement in Andrew's care.

I.i. Andrew's Evidence

[20] Andrew testified that shortly after midnight on September 21, 2008, he was with a group of friends in the parking lot of the Cawthra Community Center when two men jumped out of their truck and started attacking Andrew's friend.

[21] Andrew intervened to assist his friend. However, in the course of this attempt to help, he was stabbed multiple times with a knife. He was stabbed in the right ear, left abdomen and four times on his right leg, including in and around his knee.

[22] Andrew testified that there was a lot of blood from his ear and that it felt like it was cut off. Then, he said, the pain in his leg was so "immense" that it made the ear pain effectively go away. He testified that he had a high threshold for pain because he had suffered many sports injuries in the past.

[23] An ambulance arrived and he was taken to the hospital. Andrew was lying supine on the ground when the ambulance arrived. Andrew testified that he was unable to move his right leg due to experiencing excruciating pain.

[24] Andrew was placed on a back board by the attendants and put into the ambulance. He testified that when he was in the ambulance his knee was bent "90 degrees."

[25] Andrew testified that he was not sitting when he was transported by ambulance. His feet were strapped to the board.

[26] He also testified that his kneecap was pointing up to the ceiling in a visibly abnormal way and that he could not move his right leg. He testified that he had no sensation in part of his knee cap.

[27] Once he arrived at Trillium Hospital, he was rolled into a hallway and his leg was still bent. He was in severe pain, which he told a nurse. He said that he reacted in pain when the nurse touched him.

[28] He was placed into a bed. He testified that his knee was still bent and that he could not extend or move his knee. He was preoccupied with the pain in the centre of his knee.

[29] A doctor came in (Dr. Fine). Andrew testified that after he told Dr. Fine what happened, Dr. Fine asked him how much he had been drinking. Andrew responded that he had about four beers.

[30] Andrew testified that the pain in his knee was far worse than the pain in his semi-amputated ear and that he told this to the emergency nurses and Dr. Fine.

[31] Andrew recalls Dr. Fine using his fingers to prod the knife wounds. He said that when Dr. Fine touched his knee he cried out because he felt pain there. He testified that he told Dr. Fine about his immense pain. He testified that Dr. Fine told him his wounds were superficial.

[32] Andrew also described the other assessments made by Dr. Fine at that time, which are not material to this case except for the fact that they were done, and none of the expert witnesses had any criticisms with respect to these other assessments.

[33] With respect to the assessment of his right leg wounds, Andrew recalled that Dr. Fine felt his right leg up and down but only after Andrew asked him to recheck his leg. When Dr. Fine got to the knee, Andrew told him it hurt. Andrew recalls that Dr. Fine then asked him if he could lift the tip of his toes to the sky. Andrew responded he was in immense pain and he could not. He testified "all I did is lift my toe, and that hurt, and I said, I can't. It's a -- an immense pain. I can't".

[34] Andrew maintained that, at the time of Dr. Fine's assessment, his leg was in the same bent knee position at a 90-degree angle, and he was lying on his back.

[35] Andrew testified that Dr. Fine never asked him to try to move his leg again.

[36] Andrew steadfastly denied any recollection of Dr. Fine asking him to try and move his leg, or swing it off the bed, lift his right heel from the bed, or extend the knee on his own. He testified that had Dr. Fine asked him to lift his leg, he would not have been able to. Asked for his response to Dr. Fine's anticipated testimony that he had Andrew extend his knee on his own, Andrew answered that he would have to contradict Dr. Fine.

[37] He also testified that at the hospital his kneecap "was pointing straight up at the sky" and looked "really bad". He described his kneecap as facing straight up rather than forward while his leg was in the bent position.

[38] Andrew recalled being sent for x-rays before the suturing. Dr. Fine discussed the results of the x-rays with him, which supported Dr. Fine's views that his wounds were superficial. He testified that Dr. Fine then stapled him up and that Andrew was good to be discharged.

[39] However, in the process of stapling him, Andrew said that Dr. Fine wanted him to straighten his leg so he could staple those wounds. He said he could not, so the nurse helped him to straighten his leg and instructed him how to do it. It was at this time that he said he pulled his bandage off his ear in frustration and in an attempt to make Dr. Fine pay attention to his knee. He testified that Dr. Fine was not happy with him and he quickly stapled his knee, that was straightened, and left with some instructions for the nurse. He testified that when the nurse straightened his leg, he was crying.

[40] He only recalled seeing Dr. Fine on two occasions over this emergency visit.

[41] Andrew also testified that he could put no weight whatsoever on his right leg when he was released from Trillium Hospital. He claims that the nurses saw this and gave him crutches so he would not have to bear weight. The nurses adjusted the crutches, so his right heel was kept off the ground by an inch.

[42] Andrew testified that Dr. Fine was not present when the nurses gave him the crutches. His mother, Belinda Sommerville ("Belinda"), corroborated his evidence that he was unable to weight-bear or free-walk without the assistance of the crutches and that his right foot did not touch the ground. She also testified that she did not see Dr. Fine when the crutches were given to Andrew.

[43] Andrew said that Dr. Fine assured him that his stab wounds were superficial (which he took to mean not serious), that they would heal quickly in about 2 and a half weeks, and that he should follow up with his family physician. Andrew advised that Dr. Fine told him to return to the emergency department only if his situation became worse. He confirmed that he received over-the-counter pain killers. Andrew testified that Dr. Fine did not provide him with any instructions regarding keeping his leg immobilized nor was he referred for any further tests on his knee.

[44] Dr. Fine did, however, refer him to Dr. Brown to repair his semi-amputated ear, and set up an appointment for later that morning.

[45] Belinda confirmed Andrew's recollection of Dr. Fine's discharge instructions and that he received over-the-counter pain killers. She testified that her son could not weight-bear, and that it took his father and brother's strength to maneuver Andrew into the back seat of the car because Andrew could not move his knee. She also testified that she was given a copy of the emergency records, which she, in turn, gave to Dr. Nagpal. Dr. Nagpal was not only Andrew's family physician. He was also Belinda's employer and had been for 8 years prior. Belinda worked as a receptionist and office manager for Dr. Nagpal.

[46] Andrew attended at Oakville Trafalgar Hospital for his scheduled appointment with Dr. Brown on the morning of September 21, 2008. Belinda accompanied him. I will return to Andrew's testimony about this appointment, later in these reasons.

[47] Andrew testified that he could not weight-bear on his right leg for several weeks after his discharge and while living at his parents' house. He slept on the couch and essentially lived in the living room on the first floor because the washroom was on the main level. His mother looked after him and brought his meals into the living room. He continued to experience the same level of pain in his knee as he experienced at the hospital.

[48] Andrew testified that in the time between September 21 and November 12, 2008 (the date of the MRI), he did not fall, bang, or further injure his knee. He said he was very cautious. He expected his knee would heal in around two and a half weeks as per Dr. Fine's advice.

[49] Belinda testified that for the several weeks following his discharge, Andrew lived in the living room of their home and slept on the couch because he could not handle stairs. Her observation was that he had difficulty mounting a couple of stairs with his crutches, and he could

only move using his crutches. She never witnessed him weight-bearing on his right leg during the several weeks prior to his eventual surgery.

[50] Belinda wrote a letter of complaint to Trillium Hospital regarding his treatment in the Trillium Hospital Emergency Department in February 2010. She felt her son had been dispensed with too quickly. She characterized his treatment as “rush rush.” She did not receive a response.

[51] Andrew testified that he attended at his family physician, Dr. Nagpal’s office, on September 23, 2008 due to extreme pain in his right knee.

[52] Andrew confirmed also attending at Dr. Nagpal’s office on September 26, October 1, 8, 21, 31 and November 14, 2008. He had some recollection of his attendance at these visits but no specific recollection as the appointments ran into each other.

[53] He recalls his mother saying that he had been sent for a CT scan at the hospital, and he had no reason to doubt her. He thought that when he went for the x-rays, he might also have had a CT scan done.

[54] Belinda corroborated this evidence, explaining she had been told by the attending police officer that Andrew had been sent for a CT scan at the hospital. She erroneously relied on this representation and related it to Dr. Nagpal. She followed up from Dr. Nagpal’s office with the hospital. Initially she was told that the CT scan was not yet ready. Later, in October 2008, she was told that a CT scan had never been ordered. She then told Dr. Nagpal of this misunderstanding and that was when Dr. Nagpal ordered a CT scan.

[55] Andrew confirmed he was sent for a CT scan on October 10, 2008 and subsequently, on November 12, for an MRI, both on referral by Dr. Nagpal. Both appointments were at CML Healthcare.

[56] He recalled Dr. Nagpal discussing the November 12, 2008 MRI results with him, and that he had to go for an orthopedic consultation to repair his damaged tendon.

[57] He recalled having an initial consultation with Dr. Rosenfeld, and that Dr. Rosenfeld told him that because of the delay in time since the injury, the surgery had a low chance of being successful if there was too much scar tissue, but said he would like to try. Andrew agreed and the surgery proceeded.

[58] He said his mood at this time was good, but that his leg was in pain.

[59] When he was shown the note in Dr. Rosenfeld’s records indicating that he had played hockey and had been instructed to stop, Andrew replied that he did not actually play hockey. Rather he “crutched over” to his friends with a hockey stick and stood with it. He testified that this happened once. However, Dr. Rosenfeld was not happy with him, and he promised he would not do that again.

[60] He testified that he was experiencing "nauseating pain" during physiotherapy following the initial surgical repair surgery. Dr. Rosenfeld sent him for an MRI as a result of which Dr. Rosenfeld told him that the surgery had failed.

[61] Andrew was then referred by Dr. Rosenfeld to Dr. Sekyi-Otu, and an allograft (replacement of his tendon with tendon tissue from a cadaver) was surgically implanted to repair the injury (referred to as the "reconstructive knee surgery").

[62] Overall, Andrew gave his evidence in a straightforward way and was relatively responsive under cross examination. Furthermore, the experience of being assaulted, attending the emergency department, and the events in the following months were part of a unique and traumatic experience. It understandably made an impression on him.

[63] However, Andrew was also impeached at trial with respect to some of his testimony. For example, Andrew testified at trial that he continued to live at home with his parents after the assault. At his examination for discovery he testified that for a period of time after the accident he lived with his girlfriend. Regarding the ear bandage incident, he testified in his examination-in-chief that he took the bandage out of Dr. Fine's hand and threw it onto the bed in frustration at the second assessment (suturing of his wounds) as opposed to ripping it off his ear as he testified in discovery. Also, at the examination for discovery, Andrew described the second assessment by Dr. Fine as "a pretty quiet time." In cross-examination, he testified that he "ripped the bandage off the ear and threw it" and explained that it was a quiet time after that incident. Many of the attempts to impeach Andrew, however, were on peripheral points.

[64] In addition, at times his testimony appeared to be contradicted by the clinical record (including that of the emergency nurses), which also puts into issue his reliability on some of these points, as will be reviewed in the next section. See *Jones-Carter v. Warwaruk*, 2019 ONSC 1965, at paras. 201 and 234. This is not surprising given that the events in question occurred over a two-hour period in the emergency department, some 12 plus years ago.

I.ii Dr. Fine's Evidence – The September 21, 2008 Assessment

[65] I will pause to reflect the appreciated efforts of the lawyers to provide agreed upon transcriptions of the key clinical notes and records, as well as the glossary of medical terms I requested at trial. Where I provide definitions of certain medical terms, I referred to the glossary, which, in turn, provided definitions offered in evidence by the medical witnesses.

[66] Dr. Fine testified, fairly, that he had no independent recollection of the two-hour assessment he conducted on Andrew in the early hours of September 21, 2008. He based his testimony on the contents of the emergency record he composed and on what his usual practice is in the circumstances that were presented when he assessed Andrew.

[67] The courts have recognized that evidence offered by health care professionals as to their standard and usual practice is admissible as evidence of what they likely did in a particular matter, absent specific recollection; *Belknap v. Meakes* (1989), 64 DLR (4th) 452 (B.C.C.A.).

[68] The weight to be attached to the evidence given by physicians of their usual practice is to be determined by the trier of fact, on a case by case basis; *Gerelus v. Lim*, 2008 MBCA 89, 231 Man. R. (2d) 23; *Mirembe v. Tarshis*, [2003] O.J. No. 4753 (Ont. C.A.).

[69] Furthermore, the reliability of physicians' evidence as to their practice likely reflecting what they in fact did on a particular occasion can be enhanced by their contemporaneous records (*Jones-Carter*). The corollary of that statement is also true.

[70] With the exception of one portion of his emergency notes, Dr. Fine made his notes contemporaneously with the assessment. The one portion of his notes that he did not make contemporaneously was the notation "ligaments intact." He testified he added this note after Mr. Sommerville's discharge, but likely before the end of his shift.

[71] While much was made of the fact of this addition to his contemporaneous notes, I decline to draw the plaintiff's requested inference that Dr. Fine manipulated his notes after he received a complaint written by Andrew's mother, Belinda, in 2010 about the quality of treatment her son received by Dr. Fine. I accept that Dr. Fine added this note before the end of his shift. I am also satisfied on the evidence that notes made by doctors, much less emergency doctors with competing potentially urgent demands from other patients in the emergency department, at the end of their respective shifts do not constitute "late" notations within the meaning of the policy set out by the College of Physicians and Surgeons. Accordingly, there was no need to identify the notation as "late" in the record. However, the fact that this addition to Dr. Fine's notes was the only one made after Andrew's discharge, and it related to the assessment of the right knee did give me pause concerning the reliability of Dr. Fine's notes, and I will come back to this point.

[72] Dr. Fine confirmed that he would have reviewed the emergency nursing notes prepared during the triage process, as well as the EMR (ambulance) report. He testified that Andrew had been assessed as a Code 2 in triage which was "fairly serious" and required that Andrew be seen by a doctor within 15 – 30 minutes.

[73] Dr. Fine testified, based on his emergency notes, that his first attendance on Andrew was at 1:34 a.m. and that he performed an initial assessment at his bedside. The chief complaint was the multiple stabbings. What Dr. Fine was most concerned about was the injuries to Andrew's ear, right knee, and left abdomen.

[74] Focusing on the right knee, Dr. Fine testified that this wound would be of particular concern to him if there was dysfunction and bleeding.

[75] Dr. Fine assessed Andrew as giving a reliable history and found that he was cooperative.

[76] Dr. Fine testified that there were no deformities, meaning no bones sticking out of the skin. Further, he had sensation so there was no neurological compromise. Also, the nurse's notation of "moves X 4" meant that Andrew could move his arms and legs appropriately. Dr. Fine would have read the emergency medical services and nursing triage notes in advance of his assessment and their observations and findings would have informed his own assessment.

[77] Dr. Fine stated where he, as the emergency physician, is faced with a situation of multiple stabbings, the established emergency practice would be to follow the Advance Trauma Life Support protocol, and that is what he did. This assessment was referred to as a head to toe assessment.

[78] Dr. Fine also testified that he was concerned regarding the semi-amputated ear. The ear is an end organ and it was at risk of being lost. Photographs of this injury entered as evidence showed that the ear was essentially split in half through the ear lobe. Accordingly, Dr. Fine contacted Dr. Brown at 1:35 a.m. for an urgent referral. Dr. Brown was the plastic surgeon on call that night.

[79] Other than the assessment as relates to the right knee and the patellar tendon, all of the experts agreed that Dr. Fine otherwise performed an appropriate assessment of Andrew's injuries that met the standard of care in 2008.

[80] Dr. Fine testified, based on his notes, that Andrew looked "uncomfortable" meaning he had some discomfort and some pain. He assessed the pain in the right knee to be moderate (not severe) using the symbol "++ pain" and also found edema (fluid in the soft tissues) in the right knee. Dr. Fine explained that given Andrew had four separate stab wounds to that general leg area, it was not surprising that he had moderate pain and a moderate amount of edema in the knee.

[81] Dr. Fine approximated the knee laceration to be approximately 2 cm (width) x 1 cm (depth).

[82] Dr. Fine testified that he conducted a physical examination to investigate whether there was damage to the right knee ligaments and, specifically, the media-lateral ligament, which is inside the knee; the lateral collateral ligament, which is outside the knee; and the anterior cruciate ligament. He conducted this assessment by touching and palpating the knee at various locations. With the anterior cruciate, Dr. Fine noted that he would have done a "Lachman test." He found that the knee ligaments were intact. The reason why he assessed the ligaments in and around the knee was because of the visible trauma in the form of knife wounds that were "above and around the knee." This assessment and conclusion were reflected in his notes as the "ligaments intact" note referenced above.

[83] Moving on to the right leg tendons, Dr. Fine testified that considering the locations of Andrew's wounds on the leg, his first concern was the quadriceps tendon, which inserts into the upper part of the patella. His second concern was the patellar tendon, which attaches from the lower part of the patella into the tibia. He wrote on his record that the neurovascular system and tendons were "WNL" meaning within normal limits.

[84] With respect to the neurovascular examination of the right lower extremity, Dr. Fine explained that he would have asked Andrew whether he had any numbness or tingling anywhere from the upper thigh down to the toes. Then, Dr. Fine would have done a soft touch of the areas of Andrew's leg from top to bottom with his finger, including the knee. His written notation means that Andrew reported no numbness or tingling, and he found no dysfunction or deficit of the nerves. Through this process, Dr. Fine would have ruled out a laceration of any of the major nerves in the right leg.

[85] In order to reach a finding in relation to Andrew's tendons in his right leg, Dr. Fine testified that his assessment process regarding the quadriceps tendons would have been to ask Andrew to contract his quadriceps or thigh muscle. This exercise would rule out any lag in the function of the quadriceps, the function of which is to allow a person to flex their leg.

[86] Then, for the assessment of the patellar tendon, Dr. Fine testified that he would have observed the knee for any skin lesions, redness, abnormal masses, or deformity. He would have also palpated the area of the knee for swelling or masses, felt the lower part of the knee in the medial and lateral part of the knee. He would also have pushed down on the patella itself to see if he could feel any fluid. Dr. Fine testified that he would have been feeling for any defects in the structure of the tendon itself and the patella/kneecap.

[87] After the palpation of the knee, Dr. Fine testified that he would have performed a range of motion test. In particular, he would have asked Andrew to lift his heel off the stretcher from a laying down position on his back (active leg raise assessment). The purpose of this assessment was to see if Andrew could fully extend his knee and whether there was any flexion downwards as well. He would have also asked Andrew to bend his knee to test the flexion function of his knee.

[88] Dr. Fine testified that based on his note he concluded that the function of the tendons was normal as compared with Andrew's left (functioning) leg.

[89] Dr. Fine testified that had he found the knee to be "effectively locked in position" meaning that he could not move his knee or extend it at all, he would have documented that as an important finding. He said it was his practice to document whatever he saw. He added that "[i]t would probably be a finding that the nurse would have documented as well."

[90] Of further relevance to his treatment of the knee, Dr. Fine testified that he put Andrew on an intravenous antibiotic because he was alert to the risk of infection whenever there are stab wounds.

[91] Dr. Fine testified that he ordered x-rays of the right knee. He stated that it would have been a "trauma series right knee X-ray" and that the series would be a set of views that are set by the radiologist. However, he admitted that if, in his clinical judgment, another view was required, he could have specifically ordered that view. This is relevant to the issue of not having ordered a lateral view x-ray of the knee, which was the topic of debate amongst the experts.

[92] Dr. Fine acknowledged that he received three x-ray views of the right knee at 2:07 a.m. while Andrew was still being assessed by him.

[93] He testified that he concluded, based on his review of the x-ray views at around 2:07 a.m. that there were some lucencies (or air) in the soft tissue but that he did not see any "bony damage, fractures or dislocations of the bones". His main concern in reviewing the x-rays was to rule out any fractures of the patella and tibia. In terms of lucencies in the soft tissues (surrounding the knee), this was not unexpected given that there was penetration of the skin.

[94] When asked whether he saw air inside the knee joint visible on the x-rays, he responded:

> That at the time, I didn't—I didn't—I didn't suspect that to be in the joint. I didn't call on that as an abnormality, and I was -- you know, we leave it up to my radiology expert to read it the next day to confirm.

[95] Dr. Fine maintained under cross-examination that he did not see any air in the knee joint when he examined the x-rays during the course of his assessment of Andrew. He conceded at trial that he now saw air in the knee joint shown in these x-rays, with the benefit of hindsight, and was mistaken in 2008. He could not provide an explanation for why he missed the air in the knee joint on the x-rays but said that he relies on his radiologist for the interpretation of the x-rays. However, he agreed he interpreted the x-rays that evening and based on his interpretation he sent Andrew home without having detected air in the knee joint.

[96] Dr. Fine further explained that the hospital has a callback system to the emergency doctors, which is initiated by the radiologist in the event that the radiologist's interpretation of the x-ray showed there to be any abnormalities or significant findings that the emergency doctor should be aware of.

[97] He testified that in light of his physical examination and his finding of "no obvious dysfunction" he was content to wait for Dr. Foga's interpretation which would follow later that day (September 21, 2008) or the next day.

[98] Dr. Foga's report was entered into evidence on consent.

[99] Dr. Fine testified that he has worked with Dr. Foga since approximately 2000. He testified that he had no independent recollection of when he first read her report. However, when asked about how he interpreted Dr. Foga's statement that there "is a considerable amount of lucency seen in the soft tissues, including the medial aspect of the knee joint", he responded that he interpreted Dr. Foga's statement as being air only in the soft tissues, and not inside the knee joint.

[100] Dr. Fine testified that he did not obtain a lateral view of the knee to evaluate for effusion because the key area to focus on was the physical and functional examinations. In the absence of finding any dysfunction of the knee, he testified that a lateral view would not have changed his treatment.

[101] Dr. Fine testified that he saw Andrew again at 2:30 a.m., when he returned from having the x-rays done. He would have conducted a functional reassessment. He testified that he would have asked Andrew "if the pain was okay, probably ask him to straighten and bend his knee as well at that time, part of my practice."

[102] In the nursing note reflecting this second assessment was the following statement: "Patient pulled dressing apart on right ear." Dr. Fine did not have a recollection of what this notation referred to. However, he confirmed that at 2:30 a.m., he sutured (with staples) the stab wounds using a topical anesthetic. He added that with the anesthetic being administered, it would have given him a good opportunity to assess Andrew's knee again to ensure there was no dysfunction.

[103] During the course of suturing the wounds, Dr. Fine testified that he would have gone into each wound with a sterile instrument to estimate the depth of the wounds. He testified this would

be important so he could determine whether any structures under the skin may have been hit and also to check for any foreign bodies in the wound (e.g., from the knife).

[104] Dr. Fine testified that he conducted one final reassessment of Andrew at 3:03 a.m. as documented in his notes. This was just prior to his discharge, so Dr. Fine would have been documenting how Andrew was feeling overall, post suturing. He wrote in his note “feels better”, which he says would have been the result of asking Andrew how his pain was.

[105] After concluding his assessment of the knee, including the patellar tendon, with the benefit of having reviewed the x-ray views of the knee he had ordered, Dr. Fine concluded there was “no dysfunction” in Andrew’s knee “that necessitated urgent orthopedics consult that night.”

[106] Dr. Fine testified that, consistent with his practice, he would have spoken to both the patient and his family. He would have provided them with his findings, the investigations he undertook, and the blood work results. He would also have given Andrew the discharge instructions that are documented on the chart, and a copy of the chart. He would have told him that he had an appointment with Dr. Brown, and “explicit instructions regarding when to return to the emergency room if, you know, the condition – anything changed or his condition worsened or any other concerned (sic) and have close follow-up with his family doctor.” He explicitly denied telling Andrew that his wounds were “superficial wounds” because he doesn’t typically use that phrase. He also advised Andrew to put Polysporin (a topical antibiotic) over the sutures daily and then to go to his family doctor within 10 – 14 days to have the staples removed.

[107] Dr. Fine assessed Andrew’s pain as not severe and pointed to the fact that he did not prescribe a narcotic analgesic (pain killer). Rather he advised him to use over-the-counter pain killers, Tylenol or ibuprofen, on an as-needed basis.

[108] Under cross-examination, Dr. Fine denied that, contrary to Andrew’s testimony, when he came to suture him, Andrew grabbed bandages out of his hand and threw them on the table because he could not move his leg and was frustrated that Dr. Fine would not reassess his knee. Dr. Fine stated that if this type of incident had occurred in his presence, he would have documented it and he did not. He also would have expected the nurses to document this type of behaviour. However, under cross-examination, when shown the entry in the emergency nursing notes at 2:30 a.m. respecting this incident, he accepted that he was at bedside suturing at this time. His explanation for this apparent inconsistency was that the nurses may have been documenting a past event.

[109] Dr. Fine testified that when he uses the word “ambulate” and “ambulating” in his record, he means “walk about, weight bearing” and “walking and weight bearing”, respectively. Accordingly, he interpreted his statement in his note at the final assessment that Andrew “ambulates with crutch” to mean that Andrew was “walking and weight bearing”. He testified that he would have provided him with crutches to go home with. He supported his interpretation of “ambulates with crutches” with his further note where he advised Andrew that Dr. Brown would come to Trillium Hospital if Andrew could not ambulate, but that otherwise Andrew would go to Oakville Trafalgar Hospital to see Dr. Brown. Since Andrew went to Oakville Trafalgar Hospital for this appointment, therefore Andrew could weight-bear on his right leg.

[110] During cross-examination, Dr. Fine confirmed that the mechanism of the injury Andrew sustained, namely a knife stab wound, was an important factor as it would assist him in ruling out the possible complications.

[111] Dr Fine admitted under cross-examination that he did not rule out a partial transection of the patellar tendon and that the type of assessment he performed would not rule out a "small" partial injury to the patellar tendon or the degree of the partial laceration. He conceded that a partially lacerated patellar tendon might be detected on an MRI unless it was a very minor tear. However, Dr. Fine testified that his job was to rule out any significant dysfunction to the knee, which he maintained he did.

[112] Dr. Fine also agreed that the biggest sources of the pain he referenced in his note was the pain in Andrew's right knee. He then explained that he documented that the greatest source of Andrew's pain was his right knee in general owing to the four stab wounds on the leg. He testified under cross-examination that he was not directly attributing the pain to the laceration directly at the bottom of the kneecap, even though the documented reference to "++ pain/edema" referenced a single laceration. He conceded that he could not tell from his notes if he was referencing only the stab wound below the kneecap, but that it was possible that was what he was referring to.

[113] He agreed, by contrast, that the pain to Andrew's ear would have been "exquisitely painful."

[114] Dr. Fine testified under cross-examination on the basis of a hypothetical question that if he had a patient with a stab wound in or around the knee, and the penetrating injury to the joint capsule, his practice would be to call in an orthopedic surgeon, providing the traumatic arthrotomy (penetration of the joint capsule of the knee) was accompanied by dysfunction of their knee. By dysfunction to the knee, he clarified that he meant that the patient could not extend or flex the knee. Dr. Fine did not agree however that the possibility that a traumatic arthrotomy could give rise to infection would always necessitate a referral to an orthopedic surgeon. In Andrew's case, he sent him home with antibiotics to guard against such possibilities.

[115] Dr. Fine was impeached on some occasions on important points. For example, Dr. Fine attempted to clarify his answer on discovery wherein he erroneously said that the function of the patellar tendon is both flexion and extension. He testified that he did not know that he had an opportunity to correct his answer given on discovery. Further, in his discovery, he said that he did not assess Andrew's left knee because it had no injuries. However, in his examination-in-chief, he said that he did assess the left knee for comparison purposes. Dr. Fine testified that he did not think CT scans would be useful for assessing possible injuries to the tendons and the patella. However, at his examination for discovery he said that a CT scan would have given him some information to assist regarding a possible tendon injury.

[116] I was troubled at trial by the exchange in which Dr. Fine was confronted in cross-examination with the fact that one, and only one, of his entries was not made contemporaneously with the assessment. This concern was heightened by the fact that the later added entry had to do with his assessment of the ligaments of the right knee. Dr. Fine explained at trial that he would have made this entry before the end of his shift. However, he was impeached with his evidence

given at his examination for discovery, where he had stated that it was his practice to make his notes contemporaneously with the assessment, and that he believed he followed this practice in Andrew's case. Dr. Fine offered no explanation as to why this single brief entry was the only one added after Andrew was discharged. This exchange demonstrates that Dr. Fine was not always a reliable witness in interpreting his notes relative to his assessment of Andrew. This unreliability in his testimony is important given that Dr. Fine has no independent recollection of these events.

[117] Furthermore, I found Dr. Fine unnecessarily combative and defensive at times while under cross-examination. He argued at length about the Tintinelli emergency medicine text although he acknowledged it was authoritative and he used it regularly. While he agreed that a partial laceration of the patellar tendon could evolve to a complete laceration, he would not concede that without immobilization of an injured leg, a partial laceration would become a complete laceration. Instead, he repeated that it was the job of other physicians to follow up on such matters since an emergency room doctor only sees the patient once. This manner of responding to questions undercut his reliability as a witness in my opinion.

I.iii **The Imaging Evidence: X-rays, CT Scans, MRIs as Relates to the Issue of Partial v Complete Transection of the Patellar Tendon**

[118] Extensive expert evidence was led on the imaging modalities that were taken of Andrew's right knee and at what point in time the completely severed patellar tendon likely occurred.

[119] Dr. Cheung testified on behalf of the plaintiff. He is a radiologist who was the MRI clinic director at Sunnybrook Hospital from 1990 – 2003. He was responsible for starting up Sunnybrook's MRI program at a time when this was a new form of technology. At the time, Dr. Cheung was one of only two radiologists in Ontario with advanced MRI training. Dr. Cheung also worked as a general radiologist at various hospitals and clinics across Toronto. He then went to CML Healthcare where he interpreted various types of imaging modalities. Since 2019 he has worked at a clinic called KMH Cardiology Centre where he interprets MRIs.

[120] He has provided expert opinion in medical malpractice cases since approximately 1993 and estimates that he has been retained on behalf of both plaintiffs and defendants on a 50/50 basis.

[121] Dr. Cheung was qualified, as a litigation expert, to give expert opinion evidence on the interpretation of all of the imaging modalities in this case, including x-rays, CT scans, and MRIs. He was also qualified to give opinion evidence regarding issues of causation, including the timing and mechanism of Andrew's complete patellar tendon laceration.

[122] Dr. Cheung also happened to be the radiologist who reviewed and reported on Andrew's October 10, 2008 CT Scan and his November 12, 2008 MRI while he was working at CML Healthcare.

[123] Dr. Schemitsch is an orthopedic surgeon and was called by the plaintiff as a litigation expert. He was qualified to give opinion evidence on what a competent orthopedic surgeon would have done had they been consulted by Dr. Fine in 2008. He was also qualified to give opinion evidence on the likely outcome had advanced imaging or orthopedic consultation been arranged

by Dr. Fine on September 21, 2008. As well, Dr. Schemitsch was qualified to give an opinion on the findings from the various imaging studies relating to Andrew, including the x-rays, CT scans, and MRI.

[124] Dr. Schemitsch worked as a full-time orthopedic surgeon at St. Michael's Hospital from 1993 to 2015. He was the head of orthopedics at St. Michael's Hospital in Toronto in 2000 to 2012. In 2016, Dr. Schemitsch moved his practice to the London Health Sciences Centre where he currently is the chief of surgery.

[125] Dr. Schemitsch has authored numerous peer-reviewed articles, has experience teaching students, residents, community surgeons, emergency doctors, and orthopedic surgery residents and fellows at the University of Toronto and now at McMaster University Medical School.

[126] The plaintiff had proposed to call Dr. Seyki-Otu, the orthopedic surgeon who conducted the knee reconstructive surgery, but decided not to call him.

[127] Dr. Hummel is an orthopedic surgeon and was called by the defendant. He was qualified as a litigation expert to give opinion evidence in the same areas as Dr. Schemitsch.

[128] Since 1994, Dr. Hummel has worked as an orthopedic surgeon at the Rouge Valley Health System and then the Scarborough Health Network, which he described as a community-based hospital.

[129] Since 1994, Dr. Hummel has maintained a clinical practice in orthopedic surgery. In this capacity he runs a fracture clinic, a clinic for joint replacement surgery, and is also on call to the emergency department. Dr. Hummel testified that he assesses and treats patellar tendon injuries at his fracture clinic.

[130] The defence had proposed to call their own radiologist as an expert witness at trial, Dr. Roberts, but in the end did not call him.

[131] Dr. Stephen Rosenfeld was qualified as a participant expert on behalf of Andrew after a contested motion.

[132] Dr. Rosenfeld was the orthopedic surgeon who examined Andrew in November 2008 on referral from Dr. Nagpal. He performed the surgical repair attempt that was ultimately unsuccessful.

The Nature of the Severed Ends of the Patellar Tendon

[133] The plaintiff's theory is that both the October 10, 2008 CT scan and the November 12, 2008 MRI demonstrate that Andrew's patellar tendon was, in fact, completely severed as of September 21, 2008. The plaintiff contends that the severed tendon ends can be matched using the 2008 MRI and the 2008 CT scan. The plaintiff sought to further bolster this theory by demonstrating that the position of the patella as depicted on the September 21, 2008 x-ray was high riding (elevated) as a result of no longer being attached to the tibia by the patellar tendon, and a density measurement to show that there was a gap where the patellar tendon should have been.

[134] The defence conceded that the November 12, 2008 MRI shows a completely transected patellar tendon.

[135] Dr. Rosenfeld testified that when he reviewed the MRI image of Andrew's knee, ordered by Dr. Nagpal and taken on November 12, 2008, he saw that the patellar tendon was completed transected, requiring urgent surgery. An MRI provides imaging of the soft tissues of the body and hence is the best form of imaging to review the patellar tendon. He cautioned Andrew that the chance of success was very low, due to the lapse of time that had occurred since the injury. The surgery had a low chance of success because the severed ends of the tendon had already retracted and there was now significant scarring, which would make it difficult to re-attach the ends of the tendon. He estimated that the injury took place on September 21, 2008, consistent with his clinical note dictated November 20, 2008, following his initial consultation with Andrew held on November 19, 2008.

[136] Dr. Rosenfeld testified that once a patellar tendon is completed transected, the patient has a window of about 7 – 10 days in order for a surgical reattachment of the severed ends to have a good likelihood of success.

[137] The surgery proceeded on November 27, 2008. Dr. Rosenfeld made a surgical incision slightly medial to (meaning to the interior of) the knife wound at the lower part of the knee. Dr. Rosenfeld testified that what he saw when he opened the knee was a severed patellar tendon that looked like "a surgical laceration of the tendon" because the ends of the tendon were straight edged rather than frayed. He testified this was very unusual in his experience since when patellar tendons are ruptured (e.g., from an accidental fall) the ends of the tendon are messy with fibers frayed from being "blown apart". Furthermore, the gap area left between the two severed ends of the tendon was in proximity to where the knife wound entered the skin, over the area where the patellar tendon should have been.

[138] Dr. Rosenfeld testified that the patellar tendon sits just below the skin surface – a matter of millimetres below the skin.

[139] Dr. Rosenfeld also testified that given the accumulation of scar tissue and degree of retraction of the two severed tendon ends, it was clear to him that Andrew suffered a complete transection of the patellar tendon, which likely occurred on September 21, 2008. On cross-examination, he conceded that he could not be precise with respect to the exact timing of the complete transection, and he could not rule out that it might have occurred over the following couple of days. However, he maintained that, given his direct clinical observation of the severed tendon during surgery, with their clean cuts (and the absence of any evidence of a partial rupture), it was his opinion, developed during the course of the surgery, that the complete transection was caused by an object consistent with a knife. The November 12, 2008 MRI shows that there is no fraying of the ends of the tendon consistent with a clean cut of the patellar tendon. Dr. Rosenfeld maintained under cross-examination that this MRI was not consistent with a partial laceration by a knife and a subsequent rupture resulting in a complete laceration of the patellar tendon because he saw no fraying of any part of the severed tendon ends.

[140] Dr. Rosenfeld was not seriously challenged on his clinical observations made in the course of his surgery nor on the advice he provided to Andrew. He was challenged on his opinion regarding when the complete transection occurred.

[141] Dr. Cheung and Dr. Schemitsch agreed, based on a review of the imaging, with Dr. Rosenfeld's opinion regarding the nature of the completely severed tendon being consistent with a cut by an object like a knife. They also agreed, based on the imaging, that it was inconsistent with the fraying that would be expected if part of the tendon had been cut by the knife and then the balance of the tendon was ruptured or "blown out" by way of an injury caused by a subsequent misstep or accident by Andrew.

[142] As stated, Dr. Cheung happened to be the radiologist who originally interpreted the October 10, 2008 CT scan with the benefit of the September 21, 2008 x-ray on Dr. Nagpal's referral. He had no independent recollection of the 2008 reviews he conducted at the time.

[143] Dr. Cheung compared the October 10, 2008 CT scan with the sagittal, or side view, image of the November 12, 2008 MRI and concluded that the tendon ends matched up. This led him to the opinion that the CT scan demonstrated that the patellar tendon was completely transected by that date. Dr. Cheung demonstrated how he reached his opinion by taking the court through various images.

[144] Dr. Cheung conducted a blind review, and then a forensic analysis of the imaging in this case. He testified that he saw the appearance of sharp tendon ends on the November 12, 2008 MRI, which he described as "most in keeping with a laceration with a sharp object." He also observed an indentation fracture located on the front tibia, which he described as being consistent with an injury to the bone caused by a knife.

[145] Dr. Cheung then conducted a forensic examination of the October 10, 2008 CT scan imaging. He testified that he did not undertake this exercise in 2008 when he was the examining radiologist and that he was performing this examination with the benefit of hindsight. He concluded that the patellar tendon was shown to be completely transected on this image. He explained that he used software on the CT viewer that enhanced the view of the ligaments and tendons. Through this exercise, he demonstrated that the tendon ends on the sagittal and axial views of the October 10, 2008 CT scan and the axial and sagittal views of the November 12, 2008 MRI were similar in appearance. The tendon ends on the CT scan appeared to be completely lacerated and were described as sharp, in keeping with a laceration by a sharp object.

[146] Based on the imaging evidence it was Dr. Cheung's opinion that the complete transection most likely occurred on September 21, 2008 when considering the sharp ends of the tendons and the bone chip in proximity of the knife wound. He opined that the bone chip fracture of the tibia, located in between the two severed ends of the tendon, is consistent with being struck with a sharp object such as a knife. Therefore, the location of the bone fracture was consistent with the sharp object having entered the skin and then proceeded through the patellar tendon to the fracture of the tibia.

[147] Based on this examination of the CT scan and MRI images, Dr. Cheung concluded that the patellar tendon had been completely severed by means of a sharp object consistent with a knife. Accordingly, it was his opinion, consistent with Dr. Rosenfeld, that Andrew suffered a complete transection of the patellar tendon as of September 21, 2008, as a result of the knife wound to the knee.

[148] Dr. Schemitsch came to the same conclusion based on his review of the imaging evidence. The patellar tendon was completely transected as of September 21, 2008 as evidenced by the sharp cuts evident on each severed tendon end, and the lack of fraying, evident in the October 10, 2008 CT scan and the November 12, 2008 MRI.

[149] Dr. Hummel did not challenge Dr. Cheung's interpretation of his comparison of the October 10, 2008 CT scan with the November 12, 2008 MRI, though he did not adopt Dr. Cheung's conclusion that Andrew suffered a complete transection on September 21, 2008. Similarly, Dr. Hummel did not challenge Dr. Rosenfeld's interpretation of the November 12, 2008 MRI or his clinical observations of the tendon made during surgery or his conclusion about the appearance of the tendon ends resembling a surgical cut. However, Dr. Hummel maintained that the clinical picture is inconsistent with a conclusion that Andrew's patellar tendon was completely transected on September 21, 2008.

[150] Neither Dr. Cheung nor Dr. Rosenfeld considered the clinical picture as depicted through the clinical notes and records in reaching their opinions, while Dr. Schemitsch did review all the clinical records in reaching his opinion.

[151] Dr. Hummel accepted that the November 12, 2008 MRI showed that Andrew had a complete transection of the patellar tendon by that date. Furthermore, the defence did not offer any radiological expert evidence seriously disputing that the severed patellar tendon visible on this November 12, 2008 MRI was consistent with a complete laceration caused by a knife.

[152] In addition, Dr. Rosenfeld testified that the repair ultimately failed, as was shown on an MRI done on March 25, 2009. Dr. Rosenfeld testified and demonstrated that the sagittal view images from the March 25, 2009 MRI showed the way a ruptured tendon looks on an MRI as compared with the "surgical cut" lacerated tendon evident on the November 12, 2008 MRI. The ends of the tendon on the March 25, 2009 MRI were clearly frayed with fragments of the tendon visible. Dr. Cheung corroborated this finding. This finding was not seriously challenged on cross-examination or by the defendant's experts.

[153] The contrast between the two MRI's was compelling in demonstrating the difference in appearance between a "surgically cut" tendon and a ruptured tendon.

[154] As indicated, the first surgical repair attempt ultimately was not successful, with the result that the tendon became completely ruptured. This led to a knee reconstruction surgery in which the severed ends are attached with another piece of soft tissue (an allograft). Dr. Sekyi-Otu performed this further surgical repair on January 15, 2010.

The Density Measurements of the Knee

[155] Dr. Cheung also assessed the density of Andrew's knee. The object of Dr. Cheung's analysis was to show, through measuring the relative density of the knee, that the October 10, 2008 CT scan showed a gap between the two tendon ends. Dr. Cheung opined that this was further evidence to support his opinion that the patellar tendon had been completed transected.

[156] Dr. Cheung undertook this assessment using a recognized measurement of density called the Hounsfield Units. This technique measures the density of the structures reflected in the CT scan. Dr. Cheung demonstrated where the visible ends of the tendons had a density that is consistent with tendon density. However, in the gap between the severed ends, the density measure was consistent with there being no soft tissue including a tendon. From this measurement, Dr. Cheung concluded that there was a gap in the area where the patellar tendon should have been signifying that the patellar tendon was completely transected on the October 10 2008 CT scan image, and supporting the opinion that the tendon was completely severed at that location by that date.

[157] Dr. Hummel did not challenge Dr. Cheung's opinion regarding the Hounsfield density measurement, nor did he offer a different radiological interpretation with respect to the density issue. Rather, Dr. Hummel again focused on the clinical picture, as portrayed through the clinical notes and records, as being inconsistent with the opinion that a complete transection occurred by the time of the October 10, 2008 CT scan.

A High Rising Patella

[158] A great deal of time at trial was devoted to the plaintiff's attempt to demonstrate that the September 21, 2008 x-ray views evidenced a high riding patella. The significance of such a finding, if made, is that a high riding patella would be consistent with a finding that the patellar tendon was completed transected as of September 21, 2008.

[159] Dr. Cheung did a comparative visual analysis of the September 21, 2008 x-ray views with the October 10, 2008 CT scan and the November 10, 2009 x-rays. It was his opinion that the September 21, 2008 x-ray when compared with the October 10, 2008 CT scan and the November 10, 2009 x-ray shows that the high riding patella conceded as shown in the November 10, 2009 x-ray was also visible on the earlier x-rays. In doing this comparative analysis, Dr. Cheung was using two separate views – the oblique and the frontal views. Therefore, based on his comparison of the x-rays, it was Dr. Cheung's opinion that the September 21, 2008 x-ray showed a high riding patella consistent with Andrew's patellar tendon being completed transected.

[160] However, Dr. Cheung conceded that normally one would have used a lateral x-ray which was not available from the September 21, 2008 x-ray series ordered by Dr. Fine. However, he maintained that he had sufficient views to conduct this analysis and that he was "fairly certain" in his conclusion, though not as certain as in the other opinions he had formulated.

[161] In addition, Dr. Cheung attempted to measure the relative height of the patella. If the patella was riding higher (i.e., towards the thigh) than was normal, this would be a strong indicator that the patellar tendon was fully transected. This is because the patellar tendon attaches from the

lower part of the patella to the upper part of the tibia. Once it snaps, the patella will rise relative to the tibia.

[162] In so doing, Dr. Cheung used a method of measuring the patella height called the Micheli method. While he used other measurements, Dr. Cheung focused on the Micheli method at trial. Dr. Cheung testified that the Micheli method involves drawing lines from the top part and bottom part of the patella to the tibial plateau. Put another way, the Micheli method measures the patellar height from the front on the knee. He opined that the measurements from the September 21, 2008 x-rays demonstrate that the right patella was "significantly higher" than the left patella. Further, while the left femur lined up with the articular surface, the right patella did not line up with the right femur.

[163] It was Dr. Cheung's opinion that Andrew had a high riding patella as at September 21, 2008 based on his visual comparison and use of the Micheli method measurements.

[164] Dr. Cheung testified that his measurements were more accurate than the ones undertaken by Dr. Hummel because Dr. Hummel used the wrong MRI sagittal "slice" when he undertook his measurements. Also, Dr. Cheung used indirect measurements which are acknowledged to be more accurate than the direct measurements used by Dr. Hummel.

[165] Dr. Schemitsch undertook his own analysis of the height of the patella. Dr. Schemitsch compared the patellar articulation with the distal femur at the patellofemoral joint using the September 21, 2008 x-rays, October 10, 2008 CT scan, and the November 12, 2008 MRI. Dr. Schemitsch's analysis focused on visual comparisons of the September 21, 2008 x-ray with the October 10, 2008 CT scan and a November 10, 2009 AP x-ray. In his view, the patella was similarly positioned on the September 21, 2008 x-ray as it was on the October 10, 2008 CT scan and the November 12, 2008 MRI view. Notably, the patella appeared to be sitting above its articular surface on the October 10, 2008 CT and November 12, 2008 MRI, whereas if the patellar tendon was attached, the patella would be much closer to the articular surface.

[166] Dr. Schemitsch opined that the proximity of the stab wound to the patellar tendon obviously placed that tendon at risk. In his opinion, based on the location of the stab wound above the patellar tendon, the likelihood was extremely high that the knife cut through the patellar tendon. Furthermore, the stab wound was deep enough to cut through the patellar tendon which sits just under the skin by a few millimetres.

[167] Dr. Schemitsch disagreed with Dr. Hummel's opinion that the position of the patella on the November 12, 2008 MRI as compared with the October 10, 2008 CT scan showed that the patellar tendon was not high riding as at October 10, 2008 since the two images depicted different views of the patella meaning that the patella was not seen from the same vantage point. Therefore, Dr. Hummel's analysis of these two images was like "comparing apples to oranges", according to Dr. Schemitsch.

[168] On the other hand, Dr. Hummel disputed validity of these comparisons made by Dr. Cheung. Dr. Hummel testified that a high riding patella cannot be detected on a single film from the September 21, 2008 x-ray because the patella will look different depending on the position of

the patella in the x-ray. As well, the views of the patella in the September 21, 2008 x-ray and the October 10, 2008 CT scan were different. Furthermore, Dr. Hummel testified that Dr. Cheung had not properly used the Micheli method to validate his assessment of the position of the patella on the September 21, 2008 x-ray. Dr. Hummel testified that the Micheli method had been developed using a pediatric population to measure the patella and had not been used on an adult population. In addition, Dr. Hummel testified that Dr. Cheung had failed to perform the second calculation prescribed by the Micheli method.

[169] Dr. Hummel performed a series of measurements and ratios of his own to determine the relative patella height as at different points in time based on the October 10, 2008 CT scan and the November 12, 2008 MRI.

[170] Dr. Hummel performed four different types of measurements, but at trial he focused on the method called the Insall-Salvati. He explained that the Insall-Salvati ratio measures the patella tendon over the length of the patella to determine the height of the patella. When he performed his measurements on the October 10, 2008 CT scan, he obtained a ratio of 1.0158, which was within the normal range of <0.8 and >1.2. When he applied the same measure to the November 12, 2008 MRI, he came up with a ratio of 1.22, which was just beyond the normal range and suggestive of a slightly high-riding patella. What was significant to Dr. Hummel, more than the ratio result itself, was the fact that the patella was "significantly" higher on the November 1212, 2008 MRI than the October 1010, 2008 CT scan. He acknowledged that the Insall-Salvati method is designed to be used on x-rays whereas if it is applied to CT scans, one must use the imaging slice with the longest length of the patella. The key was to determine a fixed point on the upper end of the tibia and the lower end of the femur (the tibia and femur "growth plate"), which do not move, as the markers for assessing the height of the patella.

[171] He further explained that he was attempting to determine the vertical height of the lower end of the patella on the October 10, 2008 CT scan and the November 12, 2008 MRI image to see if one was different from the other.

[172] I note parenthetically that in Dr. Cheung's report reflecting his initial review of the November 12, 2008 MRI scan, he noted that the patella "may be slightly high riding" and that Andrew had "a complete transection of the mid portion of the patellar tendon with significant retraction of the tendons" and that he estimated there to be a 2.4 cm gap identified. He also saw evidence of bone bruising within the proximal lateral tibia. He testified in chief that he had missed the bone fracture.

[173] Dr. Cheung's impression as recorded on his report of this November 12, 2008 MRI to Dr. Nagpal (printed November 13, 2008) was:

> Motion limiting fine detail. Evidence of prior patellar dislocation. Small to moderate joint diffusion. Complete transection of the patellar tendon with a mildly high riding patella. Infiltration and evidence of hemorrhage was within Hoffa's fat pad. Surgical consultation is recommended.

[174] Dr. Hummel disputed Dr. Schemitsch's criticism of his approach and testified that Dr. Schemitsch had misunderstood what he had done. He testified that, contrary to Dr. Schemitsch's view, he used the fixed growth plate on both of the distal/lower part of the femur and the growth plate of the upper end of the tibia. He did not use the condyles which are not "fixed."

[175] However, Dr. Hummel disputed the legitimacy of the Micheli measurements as those measurements were developed in relation to an exclusively pediatric population and were aimed at assessing whether that population has abnormally high-riding patellas. Dr. Hummel testified that based on his research into the Micheli method, it had not been recommended for use on an adult population (at least in the literature). He also disputed that Dr. Cheung had done the measurements in accordance with the Micheli method, and therefore his results were unreliable.

[176] Dr. Hummel explained that he was relying on the clinical notes of Dr. Fine, Dr. Brown, and Dr. Nagpal instead of an interpretation of the September 21, 2008 x-rays because, in his opinion, these x-rays did not show a "clear high riding patella" and do not show soft tissue injuries.

[177] Dr. Hummel testified that it was his opinion that the patellar tendon was only partly transected as of the October 10, 2008 CT scan based on his interpretation of that imaging focusing on the relative position of the patella as demonstrated on the October 10, 2008 CT scan compared with the November 12, 2008 MRI.

[178] He testified that it was his opinion that, therefore, an intervening event caused the patellar tendon to become fully transected by the November 12, 2008 MRI.

[179] However, on cross-examination, Dr. Hummel admitted that his view that an intervening event occurred between the October 10, 2008 CT scan and the November 12, 2008 MRI to cause a partially severed patellar tendon to become fully severed was based on speculation.

[180] No evidence was offered by the defence as to what intervening event may have occurred. No evidence was adduced to suggest that Andrew did anything that could have caused the patellar tendon to fully rupture. Dr. Nagpal's notes from that time period similarly do not suggest any intervening event.

[181] The defence notes that Dr. Rosenfeld did not have access to all of the clinical records when he developed his opinion over the course of treating Andrew, Dr. Cheung admitted that he did not review and consider the clinical notes and records when he undertook his analysis, and Dr. Schemitsch, in their view, unfairly disregarded the clinical notes and records. Accordingly, they submit that I should attach less weight to the evidence of Dr. Rosenfeld, Dr. Cheung, and Dr. Schemitsch than to Dr. Hummel who relied extensively on the clinical picture as informed by the records of, in particular, Dr. Fine, Dr. Brown, and Dr. Nagpal.

[182] I am not persuaded that any of the measurements provided by the experts are conclusive. The various attempts to reconstruct the height of Andrew's patella as it existed on September 21, 2008 are flawed.

[183] Notwithstanding counsel's able attempt to explain why the measurements performed by the plaintiff's experts provided an accurate measurement of the relative position of the patella, I find that the measurements and visual comparisons were inconclusive.

[184] Furthermore, I am persuaded by Dr. Cheung's own report of the November 12, 2008 MRI that the MRI showed only a "slightly rising" patella with the completely transected patellar tendon.

[185] Similarly, I am not persuaded that Dr. Hummel's measurements are any more reliable in purporting to demonstrate that the patella was not high rising as of September 21, 2008 or was higher on November 12, 2008 than it was on October 10, 2008.

[186] Accordingly, the relative height of the patella as it existed on September 21, 2008 plays no role in my determination of the factual issue as to when it was that Andrew's patellar tendon became completely transected.

[187] However, I accept Dr. Cheung's evidence that his Hounsfield Units demonstrate that there was a gap in the patellar tendon evident on the October 10, 2008 CT scan that is consistent with a complete transection, and not a partial transection, of the patellar tendon. I also accept the finding reflected in Dr. Cheung's report to Dr. Nagpal, concerning the November 12, 2008 MRI, that the patella was, as of the date of that MRI, "slightly high rising", a finding which no expert seriously challenged.

[188] The defence says that the plaintiff's three experts' collective opinion that the patellar tendon was completely severed as of September 12, 2008 is inconsistent with the picture that is painted by the clinical notes and records. I will proceed with a review of those records.

I.iv. Clinical Notes and Records of Treating Health Care Professionals

[189] A preliminary note is warranted regarding the agreed terms of admissibility of joint documents tendered as an exhibit by way of a joint documents brief. The parties jointly filed a document setting out these terms as part of the joint documents brief (entered as Exhibit 1 in this proceeding). The parties agreed that, *inter alia*, "[t]he content of the documents are admitted for the truth of their contents, subject to each party's right of rebuttal through viva voce evidence, documentary evidence, and/or counsel's submissions."

[190] All of the documents reviewed under this heading were tendered as part of the joint documents brief, and thus subject to the agreed terms of admissibility.

[191] As the Supreme Court of Canada held in *Ares v. Venner,* [1970] S.C.R. 608, hospital records are an exception to the hearsay rule because they are inherently reliable as contemporaneous notes made by someone with a personal knowledge of the matters recorded and under a duty to make those records.

EMR notes

[192] The two-page ambulance report was provided to the emergency nurses, and Dr. Fine would have had them when he conducted his assessment of Andrew.

[193] Of particular relevance, the ambulance report states that Andrew was a victim of "multiple puncture wounds" including "several puncture wounds to his R knee."

[194] The report records the observation that Andrew was found "supine" on the ground, conscious and alert.

[195] During transport in the ambulance, this record records that Andrew was "semi-sitting".

[196] It also notes that Andrew was accompanied by a police officer to the Trillium Hospital Emergency Department.

[197] The report also states that the patient was "possibly HBD", meaning they had been drinking alcohol.

[198] The report records that the call for an ambulance occurred at 12:40 a.m., that the ambulance arrived at 12:48 a.m., departed the scene at 1:05 a.m., and arrived at the hospital at 1:10 a.m.

Emergency Nurses' Notes – Trillium Hospital

[199] While none of the nurses who assessed or observed Andrew and created the emergency nursing notes were called as witnesses, their notes were filed as an exhibit, on consent, for the truth of the content. There were no significant issues raised with respect to the interpretation of these notes.

[200] The primary triage assessment note shows that at triage Andrew's condition was classified as a 2 on a scale of 1 – 5, which Dr. Fine testified was serious, with 1 being the most serious and 5 being the least serious. It makes note of the various stab wounds.

[201] The secondary triage assessment notes identify the following wounds: right ear sliced in two, left abdomen penetrating wound, and right knee penetrating wound at 1:30 a.m. This record also notes that Andrew could move all four extremities and had sensation in them (being the two arms and two legs). At the same time, this assessment found no visible deformities. The record also notes that the right knee is swollen above and below the knee and reflects the fact that the primary assessment was done at 1:20 a.m.

[202] The emergency nursing trauma record's first entry is at 1:35 a.m. and notes that the patient is being sent for an x-ray.

[203] The nursing record, at 2:30 a.m., first records that the patient is back from his x-rays. It notes that Andrew pulled his dressing and bandage from his ear. Following that note, is another 2:30 a.m. entry that the doctor is suturing the right knee.

[204] At 2:40 a.m., the family is noted to be at the bedside with the doctor and Andrew.

[205] At 3:15 a.m., it is noted that the patient is discharged to his parents for follow up with "plastics" tomorrow.

[206] These notes are very sparse. They do not record anything about pain, or anything about whether an extensor mechanism assessment was performed by Dr. Fine. There is no detail regarding the range of assessments performed by Dr. Fine. The secondary triage nursing notes did note that he could move all four extremities and had sensation, but there is no detail about the extent of movement or what was done to assess movement. It is not suggested that the nurse would have performed an extensor mechanism assessment – this was left to the doctor.

[207] The nursing records do not record whether Andrew could put any weight on his right leg.

[208] The nursing records are silent on the matter of crutches.

[209] Also, there is no suggestion in the nursing records as to the degree of pain that Andrew was experiencing in his knee.

Dr. Fine's Record

[210] A complete transcription of Dr. Fine's emergency record of September 21, 2008 relating to his assessment and treatment of Andrew was filed as part of a joint transcribed notes brief.

[211] I will not repeat the transcription verbatim.

[212] The salient parts of the record, which attracted the most attention during trial were the following entries:

- Time seen by physician: 1:34 a.m.
- History of present illness: Stabbed by known person in right knee, right ear, and left flank.
- Examination: Looks uncomfortable, awake, and alert.
- Right lower extremity: Neurovascular and tendons within normal limits. Moderate pain and edema right knee. Approximately 2 cm x 1 cm laceration at right knee. Ligaments intact.
- Consultant: Brown contacted at 1:35 a.m. Will follow up in morning either at Oakville Trafalgar Hospital or here if no ambulatory.
- 3:03 a.m., reassessment: Feels better. Ambulates with crutch.
- Chest, abdominal, right knee x-rays; no acute.
- Diagnosis: Multiple stab wounds/ ear lobe full fitness laceration (total).

- Treatment & Aftercare: 1) Reassured 2) Keflex for 7 days 3) Tylenol or ibuprofen as needed 4) ice and heat 5) Polysporin daily to wounds 5) remove staples in 10 – 14 days.

- Follow-up with: Dr. Brown (plastics) at 7:00 a.m. at Oakville Trafalgar Emergency Room. Return to Emergency Department if any problems or if condition worsening. Gave patient copy of ER chart and labs.

Dr. Foga's Radiology Report of the September 21, 2008 X-Rays

[213] Dr. Foga was not called as a witness at trial. Her report was entered into evidence, on consent, for the truth of its content. However, there was considerable controversy as to what her findings, as reflected in her report, meant.

[214] While Dr. Fine reviewed the x-rays before Andrew was discharged, he did not review Dr. Foga's report until later, after his shift concluded. This is because Dr. Foga's report was not ready until after Dr. Fine's shift had concluded. It is shown to have been transcribed on September 21, 2008 at 22:13.

[215] Dr. Foga reviewed the x-rays to the chest, the abdomen, and the right knee. With respect to the right knee, Dr. Foga wrote: "There is a considerable amount of lucency seen in the soft tissues, including the medial aspect of the knee joint. However, there is no convincing evidence of a fracture. Lateral views of the knees have not been obtained to evaluate for an effusion."

[216] Lucency was defined by Dr. Fine and the experts as air or gas.

[217] Effusion was defined at trial by Dr. Fine as "an (sic) loculated collection of fluid within the knee." The experts gave similar definitions focusing on the collection of fluid in an enclosed area within the body. Effusion can include blood.

[218] The plaintiff's position is that Dr. Foga's phrase "including the medial aspect of the knee joint" meant that there was air in the knee joint and that should have raised a red flag for Dr. Fine. The defendant's position is that by virtue of the word "including", Dr. Foga only identified air in the soft tissues outside of the knee joint. Air in the soft tissues outside of the knee joint would be expected, and not dangerous, because of the stab wounds to the skin.

Dr. Stephen Brown's Clinical Notes and Records

[219] As indicated above, an agreed statement of facts was entered into evidence concerning facts related to Dr. Brown's assessment and treatment of Andrew. Dr. Brown's clinical notes and records were also entered into evidence, on consent, for the truth of their content.

[220] Of particular note, in Dr. Brown's consultation and procedure note dated September 21, 2008 at 7:30 a.m., he stated that he saw Andrew, at the request of Dr. Fine, for purposes of assessing and repairing Andrew's semi-amputated ear. In the course of his physical examination, Dr. Brown examined the knee stab wound and observed:

> "On the right knee, just at the lower border of the patella, there is a stab wound (again measuring about 1 cm in length), oriented in a transverse direction. He has quite a lot of discomfort surrounding this and some swelling, with some early bruising. *I do not believe that there is any intraarticular problem, although it is very difficult to tell. There is no distal dysfunction*. He has another smaller, longitudinal laceration on the lateral aspect of the distal thigh on the right. Again, there is no distal dysfunction and *he is able to flex and extend his knee fairly well, although he is limited somewhat by pain in the patellar laceration.*" (emphasis added)

[221] Distal dysfunction as referenced by Dr. Brown in the context of this report was defined by Dr. McMillan as "the function of the right lower extremity, so…the movement of…the ankle or the muscle or the tendons…that attach the femur, for example, the thigh bone to the tibia and the knee."

[222] Andrew does not recall Dr. Brown conducting any physical assessment exploring the functionality of his knee and, in particular, to assess whether he was able to "flex and extend" his right knee.

[223] Andrew attended at Dr. Brown's office on October 3, 2008 for purposes of removal of the sutures from his ear. There is no mention of whether or not Andrew was able to weight-bear, and no comments about his right knee. Dr. Brown did evacuate a hematoma (an abnormal collection of blood from a bleeding vessel in the right lateral (inside) thigh though.

[224] Since Dr. Brown was not called as a witness, and given the agreed statement of facts did not address the type of physical examination of the knee he may have conducted to make this clinical observation, we are left with only the fact of the observation.

Dr. Nagpal's 2008 Clinical Notes and Records (September 23 – November 21, 2008)

[225] In his first follow up visit to Dr. Nagpal on September 23, 2008, Dr. Nagpal notes that Andrew is in "severe pain." However, Dr. Nagpal also writes that the right knee is healing well. Further, Dr. Nagpal reviewed the September 21, 2008 x-rays and wrote that no abnormalities were detected.

[226] Dr. Nagpal had the emergency records, including Dr. Fine's notes, from Belinda. He was also copied on Dr. Foga's report. There is no indication in his clinical notes and records that he detected air in the knee joint or with respect to his interpretation of Dr. Foga's report.

[227] In his note reflecting the second follow up visit of September 26, 2008, there is no mention of Andrew's knee.

[228] In the third follow up visit, on October 1, 2008, there is again no explicit mention of Andrew's knees. Dr. Nagpal writes that there are "no complaints."

[229] However, in the fourth follow up visit, on October 8, 2008, Dr. Nagpal notes that Andrew has a swollen right knee. He queries whether there is a ligament tear, and orders a CT scan (performed, coincidentally by Dr. Cheung). This is the first explicit indication in Dr. Nagpal's

notes that there are concerns regarding the right knee and in particular the potential of a soft tissue tear.

[230] There is no suggestion in Dr. Nagpal's clinical notes and records during the material time (up to the October 8, 2008 visit) that he was awaiting a CT scan from Trillium Hospital, notwithstanding Belinda's testimony that she had told Dr. Nagpal one had been done based on the mistaken advice of a police officer at the emergency department on the evening of September 21, 2008.

[231] There is no evidence before the court by way of an explanation for why Dr. Nagpal omitted to reference waiting for a CT scan or failed to write whether or not Andrew was weight-bearing, or most importantly whether Andrew presented with an inability to extend his knee, either fully or partly. There is no suggestion in the notes that Dr. Nagpal conducted an extensor system examination of the right knee; i.e., an active and/or passive leg extension.

[232] However, Dr. Nagpal received Dr. Cheung's report (from CML HealthCare) with respect to the CT scan conducted October 10, 2008 (and printed October 22, 2008) regarding Andrew's right knee. The CT scan revealed a "moderate joint effusion" in the knee joint. Dr. Cheung's impression was stated to be "[s]ignificant joint effusion and infiltration of the subcutaneous fat, and within Hoffa's fat pad in the anterior knee. This may be related to the history of trauma. *If internal derangement is suspected, an MRI scan may be useful*." (emphasis added)

[233] Dr. Nagpal then ordered an MRI of Andrew's right knee. This was conducted at CML Healthcare on November 12, 2008. Dr. Cheung's report, provided to Dr. Nagpal, stated that there was evidence of prior patellar dislocation on the MRI. Furthermore, the MRI showed that Andrew had a "complete transection of the patellar tendon with a mildly high riding patella." Surgical consultation was recommended.

[234] Dr. Nagpal then made a referral to Dr. Rosenfeld, the orthopedic surgeon who conducted the unsuccessful repair surgery of the patellar tendon. Dr. Rosenfeld's evidence has been reviewed.

Dr. Rosenfeld's Clinical Notes and Records

[235] Dr. Rosenfeld saw Andrew on November 19, 2008 for an initial consultation.

[236] In his clinical note dictated November 20, 2008 he writes, in part, that Andrew "is unable to fully extend his leg and when he walks he uses his other leg to push him forward." He opines that Andrew suffered a complete patellar tendon laceration on September 21, 2008 and that it was "missed" at the Trillium Hospital emergency admission.

[237] In his operative report dictated November 27, 2008 (the date of the surgery), Dr. Rosenfeld reported that when he made his incision (just medial to the end of the stab wound) he observed a "significant amount of scarring of the tendon." He also observed that "it was a clean laceration", which made the tendon ends "easy to find" once he "broke down the scar." In the pre-surgery meeting with Andrew and Belinda on the morning of the surgery, Dr. Rosenfeld wrote that he explained to them that as the laceration is two months of age it may not be possible to repair the

tendon without an allograft. However, consent was given to proceed with the attempted surgical repair.

I.v. **Had Andrew suffered a complete transection of the patellar tendon when he presented at the Emergency Department on September 21, 2008?**

[238] There were gaps in the evidence on behalf of both parties resulting in a failure to call certain treating health care professionals that may have been of benefit to the court.

Preliminary Issue: Adverse Inference for Failure to Call Dr. Nagpal

[239] The parties decided not to call Dr. Nagpal, Dr. Brown, Dr. Foga, or any of the nurses who assisted in the triage and treatment of Andrew. Had these witnesses testified, they would likely have spoken directly as to what they did and did not do to assess, if they did, Andrew's extensor function. They could also have addressed what their notations meant. They may also have addressed questions such as whether Andrew could weight-bear and their impressions of the level of pain he was experiencing. However, the court will not second guess the strategic decisions of counsel.

[240] The defendant has asked that I draw an adverse inference against the plaintiff for failing to have called his family physician, Dr. Nagpal. The defence submits that the plaintiff called certain treating health physicians and not others, and that the plaintiff had the most control over Dr. Nagpal. Further, the defendant submits that the plaintiff failed to provide a reason for failing to call Dr. Nagpal. He relies on *Parris v. Laidley*, 2012 ONCA 755, [2012] O.J. No 5214. In *Parris*, the Court of Appeal stated at para. 2:

> Drawing adverse inferences from failure to produce evidence is discretionary. The inference should not be drawn unless it is warranted in all the circumstances. What is required is a case-specific inquiry into the circumstances including, but not only, whether there was a legitimate explanation for failing to call the witness, whether the witness was within the exclusive control of the party against whom the adverse inference is sought to be drawn, or equally available to both parties, and whether the witness has key evidence to provide or is the best person to provide the evidence in issue.

[241] The defendant submits that Dr. Nagpal, as the plaintiff's treating physician and Belinda's employer, would presumptively be friendly to Andrew. Within this context, the defendant submits that Dr. Nagpal is not equally available to both parties. See *Woods v. Jackiewicz*, 2019 ONSC 2305.

[242] The plaintiff counters and submits that, in fact, he did not have exclusive control over Dr. Nagpal and that it was equally open to the defendant to call him. The plaintiff states that he did not need to call Dr. Nagpal as part of his case and was content to rely on his clinical notes and records. He also relies on *Parris*.

[243] In both *O'Brien v. Charbonneau*, 2009 CanLII 10664 (Ont. S.C.) and *Bishop-Gittens v. Lim*, 2015 ONSC 3971, the court declined to draw an adverse inference for the plaintiff's failure

to call her treating physician as a witness in a medical malpractice case. The court observed that it is now routine for defence counsel to issue summons on treating physicians as part of their preparation for trial: *Bishop-Gitten*s, at para. 22. In *Bishop-Gittens*, McKelvey J. stated at paras. 22, 23, 24, :

> This reflects the modern reality that such witnesses are not within the exclusive control of any one party and that the discovery process will provide meaningful disclosure of the information in the hands of these potential witnesses.
>
> To accept the defence position would effectively mean that a plaintiff in a personal injury action is compelled to call every relevant medical and employment witness or otherwise run the risk that the defence will seek to draw an adverse inference from the failure to call those witnesses. The implications for trial efficiency are obvious….
>
> So, for example, it is entirely appropriate for a party to file medical records of a treating physician (as was done in this case) if, in fact, these records provide an adequate level of information to the trier of fact. If a party intends to take the position that these records are not adequate, in my view, there is an onus on them to either place the witness under summons or make their views known no later than the commencement of trial…. They should not be allowed to wait until the end of trial and then ask the trier of fact to draw an adverse inference from the failure of a party to call a specific witnesses. On the contrary, I believe that the law of adverse inference has narrowed considerably, as the rules have been broadened to require more fulsome disclosure by the parties. Relevant case law suggests that the circumstances in which an adverse inference may be drawn by a trier of fact, based on a failure to call a witness or adduce certain evidence will be rare and should only be done with the greatest of caution, see, for example, *R. v. Ogunsakin* [2008] O.J. No. 10 (Ont. S.C.J.).

[244] In 2017 there was an exchange of correspondence between counsel regarding the intent, or lack of intent, to call Dr. Nagpal as a witness. The plaintiff's counsel wrote first and invited the defendant's counsel to interview and call Dr. Nagpal, as long as the interview was done in his presence. He indicated he would be requesting the trial judge to draw an adverse inference in the event the defendant decided not to call Dr. Nagpal as a witness. The defendant's counsel replied in kind and took the position that, as, in his view, the plaintiff and his mother had control over Dr. Nagpal, the plaintiff should call Dr. Nagpal, and if he declined, the defendant would request that an adverse inference be drawn. The defendant took issue with his ability to interview Dr. Nagpal being constrained by having plaintiff's counsel present. The plaintiff took the position that he did not need Dr. Nagpal's evidence whereas, in his view, the defence case was very much predicated on what Dr. Nagpal did or did not do. Unfortunately, the issue was not resolved.

[245] In the circumstances of this case, I decline to draw an adverse inference against the plaintiff or the defendant for failing to call Dr. Nagpal. As stated above, both parties left gaps in the evidence through their decisions not to call certain treating health care professionals. Dr. Foga was a longtime colleague of Dr. Fine and had no direct contact with Andrew. Dr. Brown had limited contact with Andrew, but it was Dr. Fine who made the referral to him as a colleague who was on call to the Trillium Hospital Emergency Department on September 21, 2008.

[246] Furthermore, and in any event, the plaintiff was content to rest on the notes of Dr. Nagpal, which were transcribed and produced at trial. The plaintiff is relying heavily on the imaging evidence, and Dr. Nagpal's evidence is not critical to their theory. On the other hand, the defendant's case was very much predicated on the clinical picture derived from the various treating health care professionals' clinical notes, records, and reports.

[247] I agree with McKelvey J.'s observations in *Bishop-Gittens* that the modern reality is that treating physicians are not within the exclusive control of any one party and that the discovery process provided meaningful disclosure of information in the possession of Dr. Nagpal. It was equally open for the defendant to call Dr. Nagpal given the defence theory, which focused heavily on the clinical picture provided by the clinical notes of records of the various health care professionals, including Dr. Nagpal. This is not one of those rare cases in which an adverse inference is warranted in all of the circumstances of this case.

I.vi Analysis and Conclusion on the Factual Issue of Timing of the Complete Transection

[248] I have reviewed the imaging evidence in the context of the clinical picture painted by the clinical notes and records and agreed statement of facts with respect to Dr. Brown. I found the imaging evidence to be compelling in favour of a finding that there was a complete transection of the patellar tendon as at September 21, 2008 for the reasons already explained.

[249] I did not find the observations and findings contained in the clinical notes and records to be entirely inconsistent with the imaging evidence demonstrating that Andrew likely had a completely transected patellar tendon as of September 21, 2008. For example, we do not know what Dr. Brown based his observation on that Andrew moved his knee fairly well, in light of the pain he was experiencing, or what he meant by "fairly well." His role was as a plastic surgeon and focused on Andrew's ear injury. I have no evidence from Dr. Brown as to whether he undertook an extensor mechanism assessment, including an active leg raise. I have no evidence from Dr. Brown as to whether Andrew was weight-bearing on his right leg. I do have evidence from Andrew to the contrary, corroborated by Belinda, and I have evidence in Dr. Brown's record that he assessed Andrew from a wheelchair.

[250] I also have Dr. Fine's own note that describes Andrew as "ambulates with crutch" and have found this means that he was unable to free-walk and weight-bear on his right leg.

[251] Furthermore, the following passage from the examination-in-chief of Dr. Hummel confirms that a patellar tendon could be completely transected in the face of the patient's limited ability to partly, but not fully, extend the knee:

> Q. And we've heard about complete ruptures and partial injuries. Can you explain what a complete rupture of a patellar tendon looks like clinically?
>
> A. What it looks like? Well, if a patient were to present to me with a complete tear in the patellar tendon, one would not be able to either fully extend the knee or, number 2, in fact

> have difficulty extending the knee, depending on the extent of damage to the extensor mechanism.

[252] Dr. Schemitsch gave a similar answer in his examination-in-chief. He opined that if the retinaculum, a part of the extensor mechanism, was intact when Andrew presented at the emergency department, he could still have a limited ability to extend his knee in the face of a completed transected patellar tendon. The retinaculum was explained by Dr. Cheung as being the fibrous tissues that attached on either side of the knee.

[253] When Dr. Brown's comment is noted in this context, then it is plausible that his observation about the knee moving fairly well, and the identification of impediment due to pain, may not be inconsistent with the proposition that the patellar tendon was completely transected.

[254] It is important to remember that Dr. Brown is a plastic surgeon – not an emergency physician or orthopedic surgeon. His role with respect to Andrew was not to perform an extensor mechanism assessment, but to repair Andrew's semi-amputated ear.

[255] Similarly, I have no evidence from Dr. Foga as to what she in fact intended when she wrote the note "[t]here is a considerable amount of lucency seen in the soft tissues, including the medial aspect of the knee joint.… Lateral views of the knees have not been obtained to evaluate for an effusion." The first sentence is ambiguous on its face and could reasonably bear the competing explanations provided by the expert witnesses. I have no evidence from Dr. Foga as to why she did not initiate a call back. Perhaps she did not think it necessary in light of her report because she made it clear that there were, or were not, lucencies in the knee joint.

[256] Furthermore, while I accept that it is reasonable for health care professionals to rely on the expertise of other health care professionals' opinions operating in a team setting in formulating their own opinion (*Granger (Litigation Guardian of) v. Ottawa General Hospital,* 1996 CarswellOnt 2252 (Ont. C.J (Gen. Div.)), Dr. Fine did not receive Dr. Foga's report until sometime after Andrew's discharge. The report would be ready by the latest the day following the x-rays, but Dr. Fine may not have returned to the hospital the next day, depending on his shifts. He estimated that, depending on when his next shift was, he would have seen the report between 1 and 4 days after it was put into his mailbox.

[257] In terms of Dr. Nagpal's clinical notes and records, I accept Andrew and Belinda's evidence regarding the reason why Andrew presented at Dr. Nagpal's office on September 23, 2008. He was experiencing severe pain in his right knee – this is confirmed by Dr. Nagpal's own notation of "severe pain". I accept Belinda's evidence that she told Dr. Nagpal that a CT scan had been done at the hospital by Dr. Fine and that she followed up diligently with the Trillium Hospital and was initially told it was not ready, and then ultimately told it had not been done. I do not find it to be a mere coincidence that Dr. Nagpal immediately ordered a CT scan after Belinda was told that a CT scan had, in fact, not been done, and there is no evidence to support a finding that an intervening event occurred causing a worsening of Andrew's injury that, in turn, prompted Dr. Nagpal to order the CT scan.

[258] Again, Dr. Nagpal is a family physician who works in a family practice. A family physician practicing in a private office would not generally be assessing traumatic penetrating injuries such as stab wounds, and certainly not to the same degree as emergency physicians, as admitted by Dr. Fine.

[259] I accept the expert evidence that the patellar tendon is located millimetres underneath the skin, and Dr. Schemitsch' evidence that the knife wound was in close proximity of the patellar tendon such that the knife could not have missed the patellar tendon.

[260] I accept the evidence of Dr. Rosenfeld as to what he observed during the course of his surgery on Andrew's patellar tendon, including the "surgical like" laceration of the tendon, with no frayed parts, and the amount of scar tissue and length of retraction of the severed tendon ends. I accept Dr. Rosenfeld's opinion that the nature of the laceration was consistent with having been made by a knife at the approximate time of the assault. This opinion, I found in the qualification motion, was developed over the course of treatment as evidenced, in part, by his advice to Andrew of the low chance of success the operation had due to the passage of time. He was unwavering in his testimony under cross-examination.

[261] Dr. Rosenfeld's opinion was confirmed by the opinion evidence of Dr. Cheung and Dr. Schemitsch that the imaging shows that the mechanism of Andrew's complete transection was consistent with a surgical cut like a knife, and not a fraying of the tendon consistent with a subsequent injury after the assault. The images demonstrate this clean-cut edge and showed no fraying, which would have been expected had there initially been a partial transection which then subsequently became a full transection by reason of an accident.

[262] The experts, and even Dr. Fine, agreed that the September 21, 2008 x-ray showed air in the knee joint. All experts agreed that there should be no air in the knee joint as it is hermitically sealed. All experts agreed that if there was air in the knee joint, it meant that the knife had likely penetrated the knee capsule. Dr. Cheung identified a bone fragment inside the knee joint consistent with a hard object like a knife having nicked the bone. I accept this evidence and find that the knee joint was penetrated by the knife during the assault of Andrew.

[263] Dr. Hummel testified that based on Dr. Fine's findings, it was his opinion that Andrew did not suffer a complete laceration of the patellar tendon on September 21, 2008. He based his opinion in large part on the assumption that, consistent with Dr. Fine's testimony that in order to reach the conclusion that the tendons were "within normal limits", Dr. Fine would have palpated the knee, including the area of the patellar tendon, and asked the patient to straight leg raise and observed that he was able to do that fully without quadriceps lag.

[264] He also testified that as the November 12, 2008 MRI clearly showed that the patellar tendon was completely transected, therefore, some intervening event must have occurred between October 10, 2008, and November 12, 2008 to cause the partially transected patellar tendon to become fully transected.

[265] I reject Dr. Hummel's opinion that there was a partial transection which later became a full transection by the date of the November 12, 2008 MRI. Dr. Hummel offered no competing

intervening event and did not dispute the interpretation of the cut ends of the severed tendon. Dr. Hummel relied primarily on the clinical picture that was consistent with what Dr. Fine testified were his clinical findings and did not explain the imaging evidence that strongly indicates that the patellar tendon was completely transected by way of a surgical-like cut, consistent with a knife, and not a partial rupture which should have shown some frayed ends.

[266] Furthermore, I accept the evidence of Dr. Cheung, Dr. Rosenfeld and Dr. Schemitsch that the October 10, 2008 CT scan shows that the patellar tendon was completely transected by that date.

[267] On the other hand, there are some apparent inconsistencies between the conclusion based on, what I have found to be, compelling radiological evidence regarding the tendon ends having been cut as opposed to torn, and some comments and omissions in the medical record. The difficulty is that much of the defence's argument centered around what was not noted in records such as an inability to walk, or an inability to completely extend the knee. It is difficult to impute an interpretation to what is not in the record. Had the various physicians (Dr. Brown, Dr. Foga, and Dr. Nagpal) been called then the meaning of the omissions may have been explained.

[268] In cross-examination, Dr. Greenway testified that it was more likely than not that Andrew's patellar tendon was only partially severed when he presented at the emergency department and was assessed and treated by Dr. Fine. The defence urges me to put considerable weight on this evidence. However, Dr. Greenway was asked to assume that Dr. Fine had conducted a proper assessment of Andrew's knee and conclude that Andrew could fully extend his knee. Accordingly, Dr. Greenway's opinion is not very helpful to this factual finding.

[269] While I am not able to reconcile all of the evidence, based on an assessment of the evidence as a whole, I am satisfied that the plaintiff has proven, on a balance of probabilities, that it is more likely than not that he suffered a complete transection of the patellar tendon as a result of the knife attack he sustained on September 21, 2008. In reaching this finding, I placed a great deal of weight on the opinion and findings of Dr. Rosenfeld. Dr. Rosenfeld examined Andrew on November 19, 2008 and then performed the attempted surgical repair surgery on November 27, 2008 and so was in a different position than the others who opined on this issue. Dr. Rosenfeld formed his opinions during the course of treating Andrew, and not for purposes of offering expert testimony at this trial. Therefore, the preponderance of the evidence I accept, notably the imaging evidence that demonstrates a clean cut of the severed patellar tendon and a gap where the cut occurred, Andrew's inability to fully extend his leg, his inability to free-walk and weight-bear, and the severe pain he experienced in his knee, persuades me that the patellar tendon was completely transected when Andrew was assessed by Dr. Fine.

[270] The plaintiff urged that if I find that Andrew suffered a complete transection of the patellar tendon then I must find that Dr. Fine falsified his records when he testified that he conducted an extensor mechanism test including a full leg extension. I decline to make this finding. Dr. Fine had no independent recollection of the events of September 21, 2008 and was reconstructing his memory from his notes. Dr. Fine was interpreting his notes, and in particular the brief reference to "tendons within normal limits" and assumed he must have completed a proper extensor mechanism assessment, including an active leg raise, and that Andrew must have been able to *fully*

extend his leg. The cross-examination successfully exposed Dr. Fine's less than solid knowledge about the function of a patellar tendon. The fact that Dr. Fine added the note about the ligaments being within normal limits after Andrew's discharge, unlike the balance of the notes which were made contemporaneously with the assessment, puts into question the reliability of Dr. Fine's notes. The recording of moderate pain reflected Dr. Fine's subjective assessment. That said, for reasons that will follow, I do reject Dr. Fine's interpretation of his note that "ambulates with crutch" means that Andrew was able to walk without the assistance of the crutch.

II. Standard of Care

II.i. The Law

[271] The law is clear on the standard of care expected of a physician. In *Critsv. Sylvester.*, [1956] O.R. 132, at p. 143 (C.A.), aff'd [1956] S.C.R. 991, a physician must bring to their task a reasonable degree of skill and knowledge and must exercise a reasonable degree of care. Furthermore, the physician must exercise the degree of skill and care that could be reasonably expected of a normal, prudent physician with comparable training and experiences having regard to the setting in which they are practicing.

[272] The law recognizes that not every mistake that a physician may make falls below the standard of care. Furthermore, of particular resonance in this case, the physician's actions or omissions must not be judged with the benefit of hindsight. However, where a physician makes an error that is one that a reasonable physician would not have made in similar circumstances, then the liability will follow; *Williams (Litigation guardian of) v. Bowler*, [2005] O.J. No. 3323 at para. 234 (S.C..).

[273] Some circumstances which have informed whether a physician has met the standard of care that are of particular relevance to this analysis are:

(a) A physician is expected, as an aid to diagnosis, to avail themselves of the scientific means and facilities open to the physician;

(b) a thorough history, proper examination, appropriate tests, consultations with colleagues and specialists where necessary, are basic to a proper diagnosis;

(c) the information upon which a judgment or decision is reached must be as complete as is reasonably available and possible in the circumstances;

(d) a reasonable physician should also heed a patient's complaints during treatment for they may be harbingers of a change in condition;

(e) a key feature of differential diagnosis is the importance of eliminating the most serious possibility first, rather than the most probable.

[274] In some cases, the failure of a physician to have referred a patient to a specialist has been found to have breached the standard of care. Two of these situations are when the physician is unable to diagnose the patient's condition and when the patient needs treatment that the doctor is

not competent to give; *Crawford (Litigation guardian of) v. Penney*, [2003] O.J. No. 89 at para. 230 (S.C.).

[275] The courts have made it clear that, in medical malpractice cases, an expert is required to give evidence on the applicable standard of care. Furthermore, courts have been cautioned to base their assessment of the standard of care on expert evidence; *(Hajgato v. London Health Association* (1982), 36 O.R. (2d) 669 (S.C.), at para. 36; *Tahir v. Mitoff*, 2019 ONSC 7298, at para. 46).

[276] A physician is not the insurer of a patient's health, and the standard of care expected of a physician must be realistic and reasonable; *Crits* at p. 143; *Tacknyk v. Lake of th*e *Woods Clinic*, 1982 CarswellOnt 3858 at para. 29 (C.A.).

[277] The fact that Dr. Fine was practicing emergency medicine in an emergency department setting is a critical one as it defines the circumstances in which his conduct is to be assessed, a consideration of which is the role he was to play as an emergency physician.

II.ii The Standard of Care Required a Proper Extensor Mechanism Physical Assessment by Dr. Fine

[278] The plaintiff submits that, in light of the imaging evidence, it is clear that Andrew's patellar tendon was completely transected on September 21, 2008. Therefore Dr. Fine did not perform a proper active leg raise as part of the extensor mechanism assessment. According to all of the experts who testified on this issue, the failure to have conducted an active leg raise in Andrew's circumstances fell below the requisite standard of care.

[279] The plaintiff called Dr. Keith Greenway as an expert witness. Dr. Greenway was qualified to give opinion evidence of the standard of care of a competent emergency physician in 2008.

[280] Dr. Greenway was Chief of Emergency Services at Peel Memorial Hospital from 1988 to 1998, and Chief of Emergency Services with the William Osler Health Centre from 1998 to 2005. Since 2005, Dr. Greenway has been a hospitalist, meaning that he is involved in the treatment of patients who are admitted to hospital. This is a distinct category of patients from those who attend at the emergency department. Dr. Greenway was the lead assessor in the Emergency Medical Quality Assessment peer assessment program for the College of Physicians and Surgeons of Ontario. In that capacity, he has been called upon to review the practice of emergency physicians in Ontario to assess the quality of care and standard of care.

[281] Dr. Greenway testified that when an emergency physician is presented with a patient who has suffered a stab wound in the vicinity of the patellar tendon in 2008, it would be incumbent on the emergency physician to conduct a full extensor mechanism test featuring an active leg raise assessment. An active leg assessment requires the patient to lift his leg off the bed (from lying on his back) and then to extend his leg at the knee joint.

[282] Dr. Greenway testified that given Andrew's history as presented to Dr. Fine with respect to the stab wounds to the right knee it was necessary that Dr. Fine undertake an investigation of the right knee. Dr. Greenway explained that given the location of the stab wound at the knee – which was clearly close to the patellar tendon – a reasonable emergency doctor practicing in 2008

would need to rule out an injury to the patellar tendon. Dr. Greenway identified the stab wound below the kneecap as the most worrisome of the stab wounds on the right leg.

[283] In addition, Dr. Greenway testified that, again based on the proximity of the stab wound to the knee joint, a reasonable emergency physician would be concerned about a potential penetrating injury to the knee joint and the capsule itself. He testified that a competent emergency physician practicing in 2008 should know that if the knee joint capsule is breached with a foreign object like a knife, you can introduce foreign material such as bacteria from a dirty knife to inside the knee. A competent emergency physician should also know that the knife could have caused damage to the cartilage, ligaments, and tendons, because the wound was right over a tendon.

[284] All the experts agreed that a tear of the patellar tendon is an occult injury.

[285] An occult injury was described by Dr. Greenway, in the context of an emergency setting, as injuries that are not immediately obvious on the physical examination of the patient. He gave an example of an occult injury as "hidden injuries, masked, if you like, by the very small entry wound that the knife made."

[286] Dr. Greenway, based on the emergency record, concluded that it would be obvious that the right knee would need to be examined by way of palpation of the knee, movement of the knee, examination of the ligament stability, and, most importantly, an assessment of the patellar tendon given the proximity of the knife wound to the patellar tendon. In order to assess the patellar tendon, Dr. Fine had to ask Andrew whether he could lift his right leg off the structure and then straighten his leg at the knee joint. This is called the active range of motion or straight leg raise test. This exercise would reveal if Andrew's extension function was impaired. If the patient could lift and fully extend his leg at the knee joint on his own, then his patellar tendon was not completely transected. However, Dr. Greenway noted that this would not rule out a partial laceration to the patellar tendon and that a reasonable emergency doctor in 2008 would be expected to know this. This test had to be properly administered in order for Dr. Fine to rule out a complete transaction of the patellar tendon.

[287] Dr. Greenway explained that the passive range of motion test is where someone else moves the patient's leg to see if it can be straightened. However, a passive range of motion test does not tell you anything about the function of the patellar tendon. Dr. Greenway further explained that the patellar tendon function is to extend the knee; that it straightened the lower leg at the knee joint. He testified that a reasonable competent emergency room physician would know that in 2008.

[288] In Dr. Greenway's opinion, if Dr. Fine had performed the full patellar tendon assessment, he would have expected more extensive documentation to have been recorded in the emergency room chart in terms of the functionality of the knee joint and the ability to extend the knee joint that was reflected in Andrew's emergency chart.

[289] Dr. Greenway testified that if Dr. Fine did not ask Andrew to actively extend his knee, then Dr. Fine fell below the standard of care.

[290] Dr. McMillan was also qualified as an expert witness to give opinion evidence on the standard of care of a competent emergency physician in 2008. He was called by the defendant.

[291] Dr. McMillan is an emergency physician who practices at the William Osler Health Centre. He has practiced emergency medicine since 1988 including at the McMaster University Hospital and the Joseph Brant Memorial Hospital, which is a community urban hospital, like Trillium Hospital. Since 2005, Dr. McMillan has also been a Clinical Assessor of Emergency Medicine for the College of Physicians and Surgeons of Ontario, and an assessor of emergency medicine practice for the Quality Assurance Committee of the C.P.S.O.

[292] Dr. McMillan testified that the role of an emergency physician is to assess and treat acute or urgent patients.

[293] Dr. McMillan testified that it was not the role of an emergency physician to rule out **all** occult injuries. This is because occult injuries typically require follow up and further investigation and this is not feasible in emergency medicine. Therefore, given his view that the knee injury was not life-threatening, and Dr. Fine had ruled out dysfunction in the clinical examination, Dr. McMillan opined that Dr. Fine had acted within the bounds of clinical judgment by telling Andrew on discharge to go to his family physician for follow up care.

[294] Dr. McMillan testified that an emergency physician would be trained in the anatomy of the knee and would be expected to know that the function of the patellar tendon is to extend the knee.

[295] He opined that given the proximity of the stab wound to the patellar tendon, a reasonable emergency physician would examine the extensor mechanism of the knee, being the patellar tendon and the quadriceps, but especially the patellar tendon because of the location of the stab wounds.

[296] Dr. McMillan agreed with Dr. Greenway as to the proper physical assessment of the patellar tendon function.

[297] Dr. McMillan testified that if Dr. Fine asked Andrew to actively raise his right leg against gravity while lying on his back and Andrew was able to fully extend his leg of his own volition, then Dr. Fine met the standard of care. The corollary of this is that if Dr. Fine did not ask Andrew to do this, he breached the standard of care.

[298] It is Dr. McMillan's opinion that, assuming Dr. Fine's clinical examination of the knee was normal, and he performed an active straight leg raise in which Andrew had full extension and full flexion, and there were no abnormalities of the ligaments or tendons in the knee, as part of the extensor mechanism assessment, he met the applicable standard of care for ruling out a completely transected patellar tendon and not referring Andrew for orthopedic consultation or an MRI. Dr. McMillan added that given the location of the subject knife wound to the patellar tendon, it was required of Dr. Fine to assess the tendon function and ensure the tendon was intact and without dysfunction.

[299] Dr. McMillan found Dr. Fine's emergency record to be very comprehensive in every respect, as did Dr. Greenway with the exception of his notes regarding assessing the patellar tendon function.

[300] Dr. McMillan testified that Dr. Fine's notation "ligaments right knee normal" conformed with the standard of care because, based on Dr. McMillan's experience, when emergency physicians use language like "normal" or "within normal limits", it implies that the ligaments were tested with the passive range motion test.

[301] Dr. McMillan testified that if, in fact, Andrew suffered a complete transection on September 21, 2008, then Dr. Brown's notation that Andrew could "flex and extend his knee fairly well", and Dr. Nagpal's notations regarding the function of the knee on September 23, 26 and October 1, 2008 were wrong. Further, he would have expected these physicians to have documented an inability to fully extend the knee, if that had been what they observed.

[302] Therefore, Dr. McMillan concluded that Andrew had not suffered a completely transected patellar tendon on September 21, 2008.

[303] However, Dr. McMillan also testified that if Andrew had a completely transected patellar tendon on September 21, 2008 it would have been "clinically obvious" to an emergency physician because when the patellar tendon was palpated there would be a "palpable gap", the patient would be unable to weight-bear, and the patient would be unable to extend his knee with active straight-leg raising. Dr. McMillan testified in chief:

> Q.: If Mr. Sommerville had a completely lacerated patellar tendon on September 21, 2008, when he was being assessed by Dr. Fine, what would you expect Dr. Fine to see on his clinical evaluation?
>
> A. Well, a completely lacerated patellar tendon with actually -- would be quite obvious…. The patient would be unable to weight bear. The patient would also be unable to extend his knee with active straight leg raising. So when they complete laceration of the patellar tendon, it would be very obvious, certainly clinically obvious, to an emergency physician.

[304] Dr. Fine agreed with this general proposition and said this is why he believed he did in fact conduct an active leg assessment, which resulted in a conclusion that Andrew's tendons were "within normal limits."

[305] In light of my finding that Andrew suffered a completely transected patellar tendon when he presented to the emergency department on September 21, 2008, and the unanimous expert evidence that such an injury would have been very obvious to any emergency physician in 2008 if an extensor mechanism assessment had been properly completed, I find that Dr. Fine breached the standard of care by failing to properly assess Andrew's knee for an injury to the patellar tendon. Dr. Fine failed to observe the features of the completely transected patellar tendon including: failure to detect the gap caused by the transection, which would have been obvious upon a proper palpation of the knee; failure to observe that Andrew was unable to fully extend his knee and was

hampered by pain; and failure to observe that Andrew was unable to weight-bear and walk on his right leg without the aid of crutches.

[306] I do not find that the clinical picture presented in the collective clinical notes and records of the various treating healthcare professionals, including Dr. Brown and Dr. Nagpal, are entirely inconsistent with the clear evidence presented by the x-rays, CT scans and MRIs at trial.

[307] Accordingly, Dr. Fine breached the standard of care of a reasonable, prudent emergency physician in 2008 given the presenting circumstances of the stab wound visibly over the location of the patellar tendon, by failing to conduct a proper full extensor mechanism assessment and, in particular the failure to properly conduct a full active leg assessment.

II.iii Standard of Care Required a Timely Referral to an Orthopedic Surgeon

[308] In the alternative, whether Andrew suffered a full or partial transection of the patellar tendon as a result of the knife assault to the knee, I find that the following additional factors necessitated a timely referral to an orthopedic surgeon by Dr. Fine:

(a) A penetrating wound and the location of the wound over the patellar tendon giving rise to a possible serious intra articular injury and infection without a timely referral to an orthopedic surgeon, both of which could lead to a limb- threatening condition;

(b) The presence of dysfunction to the knee in the form of an inability to free-walk and weight-bear on the right leg; and

(c) The presence of pain disproportionate to a non-penetrating, superficial, wound to the knee joint or patellar tendon.

[309] Dr. Greenway testified that Dr. Fine breached the standard of care of the competent and reasonable emergency room physician, practicing in Ontario, in the care and management of Andrew insofar as Dr. Fine failed to:

(a) Rule out a penetrating injury to the knee joint which could give rise to a traumatic arthrotomy given the fact that the September 21, 2008 x-rays clearly showed air in the knee joint;

(b) Rule out an injury to the patellar tendon (including a partial transection) given that there was a reasonable likelihood that Andrew had suffered a patellar tendon injury from the location of the knife wound to the patellar tendon;

(c) Failure to obtain an urgent orthopedic surgeon in light of the penetrating knee injury.

[310] Dr. Greenway placed emphasis in his opinion on the high degree of pain Andrew claimed to have experienced. A high degree of pain in the knee joint, in the circumstances of this stab wound to the knee, should have been an indicator to Dr. Fine that something was going on in the knee that he could not see. This was described as an occult injury. Dr. Greenway discounted Dr. Fine's position that his notation of ++pain/edema meant moderate and not severe pain.

[311] Dr. Greenwood testified that given the location of the stab wound over the patellar tendon, and the mechanism of injury, being a knife (foreign object), should have raised for Dr. Fine a high index of suspicion that the knee joint itself had been penetrated with a foreign object (called, a traumatic arthrotomy) giving rise, in turn, to a risk of serious infection inside the knee joint (in the form of sepsis) and damage to the internal structure of the knee (called intraarticular damage).

[312] Dr. Greenway accepted Andrew's description of the pain he was experiencing in his knee on September 21, 2008, and that it was worse than the pain in his semi-amputated ear. This degree of pain was consistent with there being a problem in the knee joint that needed further investigation.

[313] Furthermore, Dr. Greenway testified that the three x-ray views Dr. Fine ordered of the knee had clear evidence of their being air in the knee joint. Dr. Greenway marked the presence of air the knee joint on all three views at trial. Dr. Greenway testified that the significance of finding air in the knee joint was that there had been a penetrating injury meaning the knee joint capsule had been pierced by the knife. This is an important clinical finding and it makes an urgent orthopedic referral necessary since evidence of a foreign object having penetrated the knee joint could give rise to sepsis, which can be fatal.

[314] Dr. Greenway testified that the air spaces in the knee joint were obvious and distinct as they appeared as black spaces inside the knee joint and black spaces means air, which should not be there.

[315] Dr. Greenway testified that in failing to detect that there was air in the knee joint during the course of his assessment of Andrew, Dr. Fine fell below the standard of care of a prudent emergency physician in 2008.

[316] The plaintiff relied on Judith Tintinalli's text, *Emergency Medicine, A Comprehensive Study Guide*, 6th ed. (McGraw-Hill, 2004), at chapter 263, which was entered as an exhibit. Dr. Fine acknowledged that this text was authoritative and that he used it as a reference source in 2008. At p. 1630, the author writes:

> Penetrating trauma near the joint should be evaluated thoroughly for damage to the joint capsule, as associated long-term morbidity is significant. Radiologic evidence of air in a joint is evidence of joint penetration. Patients with obvious bony or joint capsule injury should be evaluated by an orthopedic surgeon.

[317] In cross-examination, Dr. Greenway acknowledged that Tintinalli was authoritative and a leading text.

[318] Dr. Fine also acknowledged in cross-examination that Tintinalli was authoritative and that in 2008 he would consult this text.

[319] However, Dr. Fine in cross-examination took issue with the suggestion that it was stated in the Tintinalli text that a penetrating joint injury alone always warranted a referral to an orthopedic surgeon. Rather, there needed to be a clinical finding of dysfunction along with the penetrating joint injury to warrant an urgent referral to an orthopedic surgeon.

[320] However, Dr. Greenway's opinion was that air in the knee joint always requires an urgent orthopedic consultation.

[321] Dr. Greenway explained that the reason why air in the knee joint always necessitated an urgent orthopedic referral was because of the potential that the internal structure of the knee has been damaged, and because the risk of sepsis or infection is present. These risks presented a potential limb-threatening situation for the patient.

[322] It was also Dr. Greenway's evidence that a proper interpretation of Dr. Foga's radiological report was that she had identified lucencies in both the soft tissues *and* the knee joint and that "any physician would know" this. In any event, Dr. Greenway's opinion was that Dr. Fine ought to have seen the air for himself when he reviewed the x-ray views before Andrew was discharged.

[323] Furthermore, Dr. Greenway interpreted Dr. Fine's notation of "ambulates with crutch" to mean that Andrew could not walk without a crutch and therefore his right leg was not weight-bearing. In Dr. Greenway's opinion, a prudent emergency physician presented with a stab wound to the knee and an inability to weight-bear was obliged to seek an orthopedic referral in order to meet the standard of care.

[324] Accordingly, in Dr. Greenway's opinion, the evidence of air in the knee joint and the likelihood that there was some sort of injury to the patellar tendon given the inability to weight-bear from a visibly small knife incision and the positioning of the knife wound over top of the patellar tendon mandated an urgent referral to an orthopedic surgeon. By not doing so, in his opinion, Dr. Fine fell below the applicable standard of care.

[325] Dr. Fine admitted in cross-examination that he had been in error when he failed to detect air in the knee joint that was, with the benefit of hindsight to him, visible in the September 21, 2008 x-ray.

[326] None of the experts took issue with the fact that air in the knee joint was visible in the x-ray views from September 21, 2008 and they marked the locations on the x-ray views. Where they disagreed was how many locations in the x-ray views showed air in the knee joint.

[327] Dr. McMillan agreed with Dr. Greenway that whether or not Andrew could free-walk and weight-bear when he was discharged was an important piece of clinical information. However, Dr. McMillan assumed that Andrew was able to walk and weight-bear based on Dr. Fine's notation of "ambulates with crutch."

[328] Dr. McMillan acknowledged that Dr. Fine missed the air visible on the x-ray views from September 21, 2008.

[329] With respect to the missed identification of air in the knee joint visible on the x-rays, Dr. McMillan testified that in his opinion it was reasonable for busy emergency physicians to miss such findings and that it was only with the benefit of hindsight that these air pockets were located. This is why, he explained, emergency physicians rely on radiologists. In examination-in-chief, the following exchange occurred:

> Q. So, Dr. McMillan, you heard Dr. Fine's evidence that his assessment of the x-ray-- excuse me, assessment of the knee x-rays was that there were lucencies in the soft tissues, but he did not see any free air in the knee joint. Was that a reasonable interpretation for Dr. Fine to have?
>
> A. In my opinion, yes, it was.
>
> Q. Why is that?
>
> A. Well, as emergency physicians, you know, do we -- do we miss positive findings on x-rays? We do. We do. And one of the reasons why is emergency physicians, we aren't radiologists. Despite best efforts to interpret x-rays, were not trained as radiologists do. So we do rely on our radiology colleagues who have expertise in the interpretation of x-rays. That's -- you know, *does a reasonable physician, because they've missed the positive finding of an x-ray, do they fall necessarily below the standard of care?* No, they don't. And *that's one of the reasons why we have a discrepancy callback mechanism in place, the quality assurance protocol at hospitals*, so that discrepancies or missed findings are action. (emphasis added).

[330] However, Dr. McMillan accepted that if there was air in the knee joint and it was identified by the emergency physician, combined with an inability to weight-bear and free-walk (a dysfunction), then a referral to an orthopedic surgeon would be required. In his examination-in-chief, Dr. McMillan testified:

> A.: Well, because air in itself and the knee joint doesn't require an orthopedic consultation *unless it's associated with a clinical abnormality or dysfunction of a knee joint.* For example, we see patients quite frequently that have injections to their knees for medication, and -- from a family doctor's office that-- you know, they may present with knee pain and-- at the injection site or even some swelling. X-rays can show some error in the knee joint, but that's not an orthopedic referral necessarily, and typically it's not. *So air in the knee joint is not necessarily a requirement for an orthopedic consultation.* (emphasis added)

[331] In Dr. McMillan's answer quoted above in italics, Dr. McMillan opines that air in a knee joint does not "necessarily" require an orthopedic referral. He then provides an example of when it would not be necessary. However, I agree with the plaintiff that the example provided in no way is comparable to the scenario that Dr. Fine was presented with. There is a world of difference between air in the joint as a result of an injection with a presumably disinfected needle by a doctor and a traumatic penetrating injury caused by an object like a knife.

[332] Whether or not Dr. Foga picked up the finding of air in the knee joint on her report, the obligation was on Dr. Fine in the first instance to carefully examine the x-ray to rule out air in the joint, again given the mechanism of the wound (a knife), the nature of the wound (a penetrating injury), the proximity of the wound to the knee joint (entry from over the lower part of the kneecap), and the high risk associated with undetected infection (sepsis) in or injury to the internal structure of the joint from a traumatic arthrotomy. His failure to have done so, combined with the dysfunction to Andrew's knee, necessitated an urgent referral to an orthopedic surgeon.

[333] Furthermore, the call-back system described in the evidence that was to be initiated by the radiologist was part of the quality assurance system for the hospital. I do not view this as meaning that the examining emergency doctor viewing the x-rays at the time of the assessment of a patient in the emergency department has a lower standard of care in viewing and interpreting x-rays at first instance. If Dr. Fine was not sure about what he was seeing, he had the ability to contact the radiologist on duty immediately. He did not do that.

[334] The fact that Dr. Nagpal did not obtain an orthopedic surgical referral upon receipt of the September 21, 2008 x-ray views does not assist in an assessment of whether what Dr. Fine did or did not do on September 21, 2008 met the standard of care. I accept Belinda's evidence that the reason why further investigation was not done by Dr. Nagpal was because she told him that a CT scan had been done at the Trillium Hospital. More telling is that when Belinda found out, after making several calls to the Trillium Hospital from Dr. Nagpal's office following up on the progress of the CT scan, and after being told on October 8, 2008 that in fact no CT scan had been ordered, contrary to what she had been told previously, Dr. Nagpal ordered a CT scan promptly. Why would he do that if Andrew's knee was functioning well and his pain was only moderate? His clinical notes do not suggest that there was an intervening event that prompted the ordering of the CT scan. The report from the October 10, 2008 CT scan, authored by Dr. Cheung, then recommended an MRI which again was ordered promptly by Dr. Nagpal and took place on November 12, 2008. This then led to the urgent orthopedic referral to Dr. Rosenfeld.

[335] Dr. McMillan testified that Dr. Fine's interpretation of his note "ambulates with crutch" as meaning that Andrew could walk out of the emergency department and weight-bear was reasonable. Counsel relied on dictionary definitions of ambulatory and ambulate – both mean "able to walk."

[336] I do not accept Dr. McMillan's interpretation of "ambulates with crutch" to mean that Andrew could walk and weight bear on his right leg without the assistance of a crutch. Dr. McMillan's interpretation seems to ignore the phrase "with crutch". I also do not accept that his interpretation of "++ pain" in this circumstance is reasonable in light of Dr. Fine's admission that Andrew's ear pain was "exquisite but that the knee pain was worse."

[337] I accept Andrew and Belinda's testimony that Andrew required the assistance of the crutches in order to move and that he could not weight-bear. Their evidence is supported by Dr. Fine's note of "ambulates with crutch" and Dr. Brown's record that he met Andrew who was in a wheelchair.

[338] I also accept Dr. Greenway's evidence that it fell below the standard of care of a prudent emergency physician in 2008 to have missed the air visibly located on the x-ray views of the right knee. Dr. Fine ought to have seen those air pockets in light of the fact that he was aware that the stab wound, which he estimated at being approximately 1 cm deep and in the same proximity of the patellar tendon, raised a high index of suspicion because the knife would have penetrated the patellar tendon and then, possibly, the knee joint as well. I accept Dr. Greenway's evidence that a wound of this nature and proximity to the patellar tendon and knee joint ought to have raised a high index of suspicion to a prudent emergency physician in 2008. In other words, Dr. Fine ought

to have been paying attention to the possibility that air may be in the knee joint as a result of this penetrating wound and if so that this raised the serious risk of infection or internal joint damage.

[339] In addition, Dr. McMillan testified that Dr. Fine's grading system of pain with two plus signs as moderate pain is a common one in his experience as an assessor. Also, the fact that Dr. Fine prescribed over-the-counter medications supports Dr. Fine's interpretation of his own grading system that the pain was moderate, and not severe, which would then have warranted a narcotic prescription.

[340] Several times in his testimony, Dr. Fine was clear that the reason why he did not feel an urgent orthopedic referral was warranted was because of his finding that there was no dysfunction to the knee. As a result of this finding, Dr. Fine concluded as well that there was no penetrating injury to the knee cap.

[341] On the other hand, Dr. Fine testified that had he observed a traumatic arthrotomy accompanied by a dysfunction of the knee, it would have been his normal practice to contact an orthopedic surgeon.

[342] Plaintiff's counsel submits that Dr. McMillan was an advocate and that his evidence should be discounted for that reason. Counsel pointed to the fact that Dr. McMillan largely assumed Dr. Fine's version of events in forming his opinions. He also submitted that Dr. McMillan sometimes misquoted or took quotes out of context to enhance his own opinion, and that he went at great lengths to defend Dr. Fine. Examples of his position are found in the plaintiff's written submissions at paragraph 170.

[343] In my view, an expert is entitled to base their opinion on assumed facts. This does not make an expert an advocate. Also, while there was some selective quoting, I am not persuaded, on balance, that Dr. McMillan acted as an advocate.

[344] Defendant's counsel urged the court to attach less weight to Dr. Greenway's opinion since he has not practiced emergency medicine since 2005. Further, they submit that Dr. Greenway's opinion was infused with hindsight.

[345] Dr. Greenway has experience as a practicing emergency physician to 2005. No evidence was led to suggest that Dr. Greenway's experience was out of date. Also, Dr. Greenway was the Lead Assessor for Emergency Medicine, Quality Assurance Peer Assessment Program for the C.P.S.O. from May 2009 to May 2011. I do not find the defendant's arguments compelling.

[346] In my view, Dr. Greenway's evidence is to be preferred over that of Dr. McMillan where they diverge, and in light of my findings of fact. Dr. McMillan's testimony appeared to me to be tailored to suit Dr. Fine's explanation on matters such as the meaning of "ambulates with crutch", which interpretation I find to be untenable in the circumstances of this matter.

[347] Accordingly, in the circumstances presented by Andrew at the Trillium Hospital Emergency Department, including the location and approximate depth of the subject stab wound over the patellar tendon and knee joint, Dr. Fine fell below the standard of care expected of a prudent emergency physician practicing in a suburban hospital in 2008 by:

(a) Failing to detect air in the knee joint on the x-rays he ordered and reviewed during the course of his assessment and treatment of Andrew giving rise to a high index of suspicion that Andrew suffered an intra-articular joint injury and/or infection;

(b) Failing to appreciate that Andrew was not weight-bearing or able to walk on his right leg, which required the assistance of crutches;

(c) Failing to appreciate that Andrew had pain that was disproportionate to a non-penetrating joint wound; and

(d) Failing to seek an urgent consultation with or referral to an orthopedic surgeon on a timely basis given the above factors.

III. Causation

[348] The parties are *ad idem* with respect to the applicable law of causation in this matter. It is the traditional "but-for" (legal) test. The Supreme Court of Canada, in *Clements v. Clements*, 2012 SCC 32, [2012] 2 S.C.R. 181, at para. 8:

> The test for showing causation is the "but for" test. The plaintiff must show on a balance of probabilities that "but for" the defendant's negligent act, the injury would not have occurred. Inherent in the phrase "but for" is the requirement that the defendant's negligence was *necessary* to bring about the injury — in other words that the injury would not have occurred without the defendant's negligence. This is a factual inquiry. If the plaintiff does not establish this on the balance of probabilities, having regard to all the evidence, her action against the defendant fails. [Emphasis in original.]

[349] Furthermore, the "but for" test requires the finding of a substantial connection between the injury and the alleged breach of the standard of care. The Supreme Court of Canada in *Hanke v. Resurfice Corp*., 2007 SCC 7, [2007] 1 S.C.R. 333, at para. 23, explained this requirement as follows:

> The "but for" test recognizes that compensation for negligent conduct should only be made "where a substantial connection between the injury and the defendant's conduct" is present. It ensures that a defendant will not be held liable for the plaintiff's injuries where they "may very well be due to factors unconnected to the defendant and not the fault of anyone." [Citation omitted.]

[350] A worsening of a pre-existing injury, or a poor outcome as a result of the medical intervention that falls below the applicable standard of care is recognized as an "injury". In *White v. St. Joseph's Hospital (Hamilton)*, 2019 ONCA 312, at para. 25, a medical malpractice case, the Ontario Court of Appeal stated:

> In an action for delayed medical diagnosis and treatment, a plaintiff must establish that the delay caused or contributed to the unfavourable outcome. The phrase "caused or contributed" originates in the *Negligence Act*, R.S.O. 1990, c. N.1, at s. 1, and is the normative test applied by this court, as set out in *Sacks v. Ross*, at para. 117, and embodied

> in the "but for" test prescribed by the Supreme Court in *Clements v. Clements*, 2012 SCC 32, [2012] 2 S.C.R. 181, at para. 8. In other words, "but for" the alleged delay would the plaintiff have suffered the unfavourable outcome? (Nothing in *Sacks v. Ross* revived the "material contribution to injury" test.) The trial judge found that Mr. White failed to prove that the delay in treatment caused or contributed to his injuries. She noted: "Dr. Fong was not able to articulate what injury he says was avoidable." The trial judge stated: "Dr. Fong agreed that most of Mr. White's outcome was unavoidable. The court finds this evidence is devastating to the plaintiff's case." [Citations omitted.]

[351] There are two different scenarios at play under this analysis.

[352] Under the first scenario, what would a reasonable orthopedic surgeon have done in 2008 if consulted by Dr. Fine with the finding that Andrew had a complete transection of the patellar tendon, and would Andrew have likely had a better outcome?

[353] Under the alternative scenario, what would a reasonable orthopedic surgeon have done in 2008 if consulted by Dr. Fine either with the scenario that Andrew had air in the knee, or alternatively, Andrew had a partial transection of the patellar tendon.

[354] Andrew argues that Dr. Fine ought to have either ordered an MRI or consulted with an orthopedic surgeon, who in turn would have ordered an MRI. An MRI would then have revealed any soft tissue injury in the knee, including a transected (be it complete or partial) patellar tendon.

[355] In the alternative, the plaintiff argues that had Dr. Fine identified the air in the joint space visible on the x-rays, and reported that additional finding to an orthopedic surgeon, then a reasonable orthopedic surgeon would have considered this an orthopedic emergency and conducted exploratory surgery as well as ordering an MRI. His partial transection would then have been discovered much sooner, and his outcome would have been better.

[356] As the knee joint is hermetically sealed, there should be no air it. With Andrew's presenting complaints, air in the knee joint is a red flag that should have warranted further investigation independently from a conclusion as to whether the patellar tendon was injured for two reasons. First, air in the knee joint is consistent with the knife having penetrated the surrounding knee capsule into the knee joint posing a risk of sepsis (infection), which can be fatal constituting a traumatic arthrotomy (meaning that the capsule of the joint has been perforated by a foreign object). Second, it is consistent with the knife having penetrated the patellar tendon and itself causing an injury to it.

[357] The defence position is that, even if there had been a partially transected patellar tendon, given the clinical findings Dr. Fine made (no dysfunction of the knee, and no air in the knee joint apparent on the x-ray views), an orthopedic referral was not warranted, nor was the ordering of an MRI. Furthermore, Dr. Fine did not have the ability to order an MRI overnight.

[358] Alternatively, had Dr. Fine consulted with an orthopedic surgeon that night, given his clinical findings, an orthopedic surgeon would not have undertaken any investigation of the knee, and would not have ordered an MRI.

[359] With respect to the air in the knee joint, the defence took the position that mere air in the knee joint, without more, would not be an orthopedic emergency, and that a reasonable orthopedic surgeon would have done just what Dr. Fine did.

[360] Dr. Schemitsch was not qualified as an expert on standard of care, as a result of my ruling at trial in my role as gatekeeper. He was qualified on the issue of causation, as an orthopedic surgeon. He testified as to what a competent orthopedic surgeon would have done had one been consulted by an emergency physician about a patient presenting with Andrew's history and clinical picture.

[361] He testified that if Dr. Fine had detected the air in the knee joint on the x-rays, giving rise to a traumatic arthrotomy, an urgent orthopedic surgery consultation was required.

[362] Dr. Schemitsch also testified that given the location of the stab wound to the patellar tendon, a knife stab need only penetrate the skin by millimetres to hit the tendon. Therefore, the index of suspicion of a partial or complete transection should be extremely high.

[363] Dr Schemitsch further testified that in these circumstances, had one been consulted, a prudent orthopedic surgeon would have obtained further imaging, including a lateral x-ray and either an ultrasound or MRI (soft tissue imaging) to rule out an injury to the patellar tendon.

[364] Dr. Schemitsch testified that a competent orthopedic surgeon would have conducted a physical examination of the leg and ordered an MRI and that a competent orthopedic surgeon would likely have found the transection of the patellar tendon.

[365] Dr. Hummel agreed that an MRI would have shown a complete or partial transection, and that a physical examination would have revealed a complete transection of the patellar tendon.

[366] Dr. Schemitsch also testified that a competent orthopedic surgeon would have detected the air present in the knee joint depicted in the September 21, 2008 x-rays, and that this gave rise to a real risk of a traumatic arthrotomy. A competent orthopedic surgeon would have ordered an MRI and likely booked exploratory surgery.

[367] Dr. Schemitsch described the risk this way:

> The air in the joint space, would be highly concerning. It would immediately make the diagnosis a traumatic arthrotomy…there shouldn't be air in the knee. The only reason that there would be air in the knee would be some sort of penetrating trauma, and it just goes without saying, with a knife wound in close proximity to the knee, put two and two together, there is no other explanation.

[368] Dr. Schemitsch testified that had Dr. Fine referred Andrew to an orthopedic surgeon, a competent orthopedic surgeon would have taken Andrew to the operating room within a day or so to repair the patellar tendon, whether it was a partial or complete transection.

[369] In the interim, a competent orthopedic surgeon would have immobilized the knee to prevent any further possible tearing of the tendon by using a knee split.

[370] Dr. Schemitsch explained that this would be an urgent surgical procedure:

> The best outcome is repairing those injuries acutely. With time, the muscle contracts and then eventually it sort of scars down, and there's a gap, and then it's really difficult to approximate the two tendon ends. So, if you do this procedure, you know, weeks and months later, you get a primary repair that is under tension and at risk for subsequent failure. If this is done, you know, in the first few days you don't really see that contraction and retraction and scarring. The tendon ends can be brought together without tension, and that essentially allows you to get a good repair that typically goes on to heal with no further operation and no significant sequelae."

[371] Dr. Rosenfeld's description of what he observed and had to contend with when he operated on Andrew is very similar to what Dr. Schemitsch described would happen with a delayed operation.

[372] He further testified that the ideal time for this type of patellar tendon repair surgery is approximately 2 weeks from the injury. Had Andrew been operated on within that time frame, his likely outcome would have been much improved. Further, it would have been likely that Andrew would not have suffered a re-rupture down the road, as he did, and would not have continued with his current limitations which include knee pain, muscle weakness, limited knee function and an inability to fully participate in leisure and work endeavours.

[373] Dr. Hummel agreed that in these circumstances, an MRI would have been ordered, but that he would not be rushing the patient into the operating room pending further investigation and the results of the MRI. Dr. Hummel also agreed that pending further investigation of the knee, he would immobilize the knee to prevent any possible tearing.

[374] Dr. Hummel agreed with the general proposition that air in the knee joint, giving rise to a traumatic arthrotomy, warranted a prompt (not emergency) orthopedic consultation if there were any concerns about intraarticular damage. He testified that an orthopedic consultation would have occurred later that morning, with the patient being kept in hospital. Dr. Hummel testified that if there were any concerns about potential soft tissue injury to the knee, that a prudent orthopedic surgeon would also have ordered an MRI. In this case, an MRI would have revealed a fully or partly transected patellar tendon.

[375] Dr. Hummel defined a traumatic arthrotomy as meaning that the capsule of the joint has been penetrated. When asked what he would do if he was presented with a patient with the clinical findings that Dr. Fine testified, but that the patient additionally had air in the knee, Dr. Hummel answered:

> Q. And in the situation where a capsule of the joint has been perforated, what are the available options for an orthopedic surgeon treating that situation?
>
> A. Like all things in orthopedics, it is dependent on case-by-case evaluation. If I was to see a patient with a tear that is hardly noticeable in other words, there was some access for air to get into the joint and I am very satisfied that there are no associated intra-articular

injuries or damage, there is no damage to any other portion of the joint - I would consider treating that expectantly, which means I would observe and potentially follow. The patient does need to be followed for potential infection, but it always depends on the extent. For example, if the patient had sustained a massive injury to the knee where there is a 10 cm matters laceration to the side of the knee and the bone is exposed, that's a traumatic arthrotomy. It gets treated very differently if there's nothing other than the perforation of the capsule.

…….

Q. Assume -- I want doctor to now change the assumptions lightly. So I'm going to stick with the same group of assumptions. I won't repeat them all. But the assumption I will change is regarding the X-ray findings. And assuming the X-ray found the emergency room physician said the X-ray shows some air in the joint space, meaning free air in the joint space. What would a reasonable orthopedic surgeon do in that circumstance?

A. In that circumstance, once again, I would still ask the same questions. I want to know what else associated with this area -- free air in the joint. I would ascertain if there were any concerns about the potential for intraarticular damage, and if there were any concerns, it would be my preference to -- or I think an orthopedic surgeon to actually consider seeing the patient for myself. Now I don't think it's necessarily an emergency, to be done in the middle of the night, that I would recommend that the patient be kept, and I would observe it in the morning.

Q. And when you rounded on such a patient in the morning with the assumptions I've just provided to you, but would you do with that patient?

A. I would start from scratch. I would once again do my full examination. I would take a history and physical. I would ensure that there were no other associated injuries. One always needs to be conscious of that. I would examine the patient carefully to ensure that there were no -- at the finals were in fact as described. I would review the x-rays myself and make a decision at that time.

Q. Okay. And assume that the results were the same as reported to you by the emergency room physician and the x-rays appear as they appear in this case. What would you like the recommend next for that patient?

A. My recommendation, if I-- if I identify the free air in the joint, is that the question?

Q. Correct. Well, you know there's free air in the joint, and you've confirmed it on the x-ray. I'm asking – you've rounded on the patient, you've assessed the patient in the emergency department. What's happening next to this hypothetical patient?

A. Well, once again, I've completed and I've assessed that I can find no evidence of any weakness, damage, in particular damage to the knee joint itself, then I would consider arranging, if necessary, for an investigation, and I would potentially send the patient home and potentially arrange for the patient to be followed up through my clinic.

> Q. And you mentioned you'd arrange for an investigation. What would be that investigation?
>
> A. Well, the investigation would take the form of -- depending on what I found at examination. Potentially the starting point would probably be a repeat x-ray, if I – since - I think that would be reasonable. I will consider the other options, either of an ultrasound or an MRI if I felt there was a soft tissue injury to the knee, I would organize an MRI.

[376] Dr. Hummel then clarified that going back to 2008, he would probably receive an MRI within a week to 10 days, if he pushed, because it was more difficult in 2008 to obtain an MRI.

[377] Dr. Hummel also verified that he had been able to identify air space in Andrew's knee joint based on his review of the September 21, 2008 x-ray views.

[378] Dr. Hummel disagreed with Dr. Schemitsch's opinion that if any free air had been detected in the knee joint, that a reasonable and prudent orthopedic surgeon would have performed a surgical exploration and irrigation. Dr. Hummel clarified that it would depend on case-by-case findings. He testified that if there was no damage in particular or no intraarticular findings on examination (meaning a problem with the joint) and the patient has *full* active extension of his knee then he would not personally take the patient to the operating room as an emergency.

[379] Dr. Schemitsch testified that if diagnosis is made of full laceration then the patient would have received treatment, prompt surgery, and had a much better outcome (repair). The window of opportunity for a successful repair of a completely transected patellar tendon is about 7 – 10 days post injury. Dr. Schemitsch testified that this surgery would have been prioritized to occur within that window of opportunity, and the surgical repair represents the best outcome for patients and would have been the best outcome for Andrew.

[380] Dr. Hummel testified that he would typically be called to assess patients who had suffered some type of trauma and were at the emergency department one out of two calls. At his fracture clinic, he estimated that he would see between 6 and 12 potential patellar tendon injuries per year.

[381] He testified that when faced with a potential or confirmed patellar tendon injury, the most important steps for him to take were evaluation and investigation, and once investigated, to determine a treatment plan and to provide it to the patient.

[382] Dr. Hummel described that if he was presented with a patient who had a complete transaction of the patellar tendon, generally a surgical reconstruction would be required.

[383] Alternatively, in the situation of a partial laceration, then the patient's knee would have been immobilized with a knee extension brace to prevent further tearing and permit healing, and there would have been follow up by an orthopedic surgeon (not just a family doctor) to monitor.

[384] Both of the orthopedic surgeons gave similar testimony regarding what a prudent orthopedic surgeon would have done had they been consulted with respect to a partially transected patellar tendon.

[385] Dr. Schemitsch testified that if partial laceration of a patellar tendon is identified, then he would have kept the patient in the hospital, immobilized the knee, and then arranged careful follow up with the patient and ordered an MRI.

[386] Dr. Hummel testified as follows on this point:

> Q. And if there is a partial rupture to a patellar tendon that has been identified, how is that typically treated by an orthopedic surgeon or what are the treatment options that an orthopedic surgeon has available to him or herself?
>
> A. So, in general terms, a partial tear would be dealt with similarly in terms of investigative studies. There are options, for example, an ultrasound, there's examples of using an MRI, but one would want to get an impression of the extent. But more importantly is function, and if one were to test the knee and the patient had full active extension of the knee, without an extensor lag, it is -- it would be appropriate to treat this with an extension brace of the knee and careful follow-up in terms of conservative management. If the extent the injury was such that the patient did not have full extension, I would discuss with the patient the option of reconstruction.

[387] With respect to the likely outcome had a timely diagnosis and treatment been made with respect to the completely transected patellar tendon, the evidence was clear that a surgical repair would have been successful.

[388] With respect to the likely outcome had a timely diagnosis and treatment had been made with respect to a partly transected patellar tendon, the evidence was clear that the knee would have been immobilized and monitored to determine whether the tear was healing or not. If the tear got worse, then urgent surgical repair would have occurred. Either way, the outcome for Andrew would have been better.

[389] Dr. Schemitsch described the improved quality of Andrew's outcome like this:

> So he wouldn't have the pain that he currently has, he would have much improved function, so he wouldn't have, you know, difficulty with activities of daily living, so activities that require strength, so long standing, kneeling, squatting, bending, all of those kinds of things don't work well if your extensor mechanism is negatively impacted upon. So if the tendon were [sic] to go on to heal, that he wouldn't have pain, wouldn't have patella alta, he wouldn't have the issue with quad's weakness, he'd have better function, and he would have, you know, a leg that was comparable to the other side, so in essence normal.

[390] Accordingly, I find that:

(a) In the case of a completely transected patellar tendon, had an orthopedic surgeon been consulted and provided with that diagnosis, urgent surgical repair would have been

undertaken. Further, Dr. Schemitsch testified (and Dr. Hummel did not challenge this opinion) that had surgical repair been attempted sooner (within 7 to 10 days from the date of injury), the surgery had a high chance of success and Andrew's outcome would have been better;

(b) In the case of a partially transected patellar tendon, had this diagnosis been provided to the orthopedic surgeon, a prudent orthopedic surgeon would have conducted their own investigation, if not the night of September 21, 2008, then the next day, and would have ensured that Andrew's knee was immobilized in the interim. The orthopedic surgeon would have monitored Andrew closely to detect whether the partial transection was healing or required surgery. In either event, Andrew's outcome would have been better.

(c) In the case that Dr. Fine advised an orthopedic surgeon that there was some potential damage in the knee, and air in the knee joint, a reasonable orthopedic surgeon would have recommended that Andrew stay in the hospital with a view to conducting their own independent investigation, which would likely have included, in this case, the ordering of an MRI. An MRI would have revealed injury to the patellar tendon in a timely fashion and permitted the appropriate surgical repair or reconstruction to be done in a timely fashion leading to a better outcome for Andrew.

[391] Accordingly, the plaintiff has proven on a balance of probabilities that but-for the negligence of Dr. Fine and the resultant delayed diagnosis and treatment, Andrew's outcome would have been better and he would not have suffered the damages that he has, including ongoing pain, limitation of movement and restriction of activities and function.

IV. CONTRIBUTORY NEGLIGENCE

[392] The defendant submits that in the event I find liability on his part, that I should discount the agreed upon damages award by 50% as Andrew was contributorily negligent.

[393] The defendant submits that Dr. Fine told Andrew to come back to the emergency department if his condition became worse or he had any problems. He did not.

[394] The defendant also submits that Andrew undertook activities that contributed to his patellar tendon injury; specifically, he played hockey after the surgical repair surgery by Dr. Rosenfeld, and he continues to work as a steel dry frame installer, which involves heavy labour bound to have aggravated his injury.

[395] The burden of proof is on Dr. Fine to establish, on a balance of probabilities, that Andrew was contributorily negligent. The standard of care is whether Andrew met the standard of a reasonable patient. If so, did this failure contribute to the loss suffered by Andrew. Dr. Fine must also demonstrate that Andrew's actions or omissions were the factual and proximate cause of his injury (*Anderson (Litigation Guardian of) v. Nowaczynski*, 1999 CarswellOnt 3855).

[396] Andrew testified that he did not play hockey following his surgical repair surgery, but rather joined his friends by standing on his crutches, and that he did this once. When Dr. Rosenfeld

admonished him, he did not repeat this activity. I accept Andrew's evidence. He was not shaken in cross-examination on this point, and no evidence was led challenging his explanation.

[397] Andrew testified that he did not go back to the emergency department because his knee condition did not get any worse. It stayed the same. However, he did attend at the office of Dr. Nagpal, commencing 3 days after his emergency visit, and he re-attended repeatedly thereafter. Andrew attended at his family physician's office frequently commencing September 23, 2008 – approximately eight times in 3 months following his injury. In so doing he followed Dr. Fine's advice to follow up with his family physician, and reassurance that his injuries should heal, and he should be fine.

[398] There is no evidence suggesting that he did not follow Dr. Nagpal's instructions. To the contrary, the evidence is that Andrew did follow Dr. Nagpal's instructions; for example, he attended at the scheduled CT scan and MRI, and at Dr. Rosenfeld's office on referral by Dr. Nagpal.

[399] Andrew also attended before Dr. Sekyi-Otu as soon as Dr. Rosenfeld determined that the surgical repair had failed and made the requisite referral. Andrew followed Dr. Sekyi-Otu's advice and underwent the knee reconstruction surgery.

[400] I find that by attending before Dr. Nagpal for consistent follow up, attending before Dr. Rosenfeld for the surgical repair, and then before Dr. Sekyi-Otu for the knee reconstruction surgery, Andrew acted as a reasonable and prudent patient.

[401] As for the hockey incident, there is no expert evidence suggesting that it was the factual and proximate cause of the surgical repair's failure. Dr. Rosenfeld's evidence was that due to the lapse of time between the complete transection of the patellar tendon and the surgery, the chance of a successful repair was very low. No expert challenged that evidence.

[402] Furthermore, while Andrew admitted in cross-examination that Dr. Sekyi-Otu advised him to consider job retraining since his job as a steel frame drywaller entails heavy lifting, there is no expert evidence establishing that his ongoing work has in fact worsened his condition. In addition, the note of Dr. Sekyi-Otu that reflected this advice was along the lines that Andrew should consider changing his career in the long term.

[403] There is also no expert evidence suggesting that either Andrew's hockey incident or his current line of employment are the factual and proximate cause of his injury.

[404] In the cases relied upon by Dr. Fine, the plaintiff had essentially done nothing to address a worsening situation, including ignoring specific instructions. See *Georghiades v. MacLeod*, 2005 CanLII 14149 (Ont. S.C.); *Bennett v. Landecker*, 2011 ONSC 6168; *Peppler Estate v. Lee*, 2019 ABQB 144, aff'd 2020 ABCA 282, leave to appeal refused 2021 CanLII 4698 (S.C.C.). It cannot be said that Andrew ignored his knee condition and did nothing.

[405] In this case, in addition to telling Andrew to come back to the emergency department if his knee got worse or had problems, Dr. Fine told Andrew to go to his family physician for follow up.

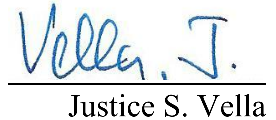
From the standpoint of a reasonable patient, it was reasonable for Andrew to attend at his family physician's office and to rely on Dr. Nagpal's care and instructions, which he did.

[406] Accordingly, I find that Andrew was not contributorily negligent.

JUDGMENT AND COSTS

[407] Judgment is granted in favour of the plaintiff, in the sum previously agreed upon by the parties as damages.

[408] If the parties cannot agree on the appropriate award of costs, then, if they have not already done so, the parties shall immediately exchange cost outlines. The plaintiff may then deliver his cost outline and written submissions by September 10, 2021. The defendant will then deliver his reply submissions by September 17, 2021 together with his cost outline. The written submissions are not to exceed five pages double-spaced in length.



Justice S. Vella

Released: August 19, 2021

CITATION: *Sommerville v. Fine and Brown*, 2021 ONSC 5638
COURT FILE NO.: CV-10-410126
DATE: 20210819

ONTARIO

SUPERIOR COURT OF JUSTICE

BETWEEN:

ANDREW SOMMERVILLE

Plaintiff

– and –

GEOFFREY FINE and STEPHEN BROWN

Defendants

REASONS FOR JUDGMENT

Vella J.

Released: August 19, 2021