

Automobile Injury Compensation Appeal Commission

IN THE MATTER OF an Appeal by [the Appellant]

AICAC File No.: AC-18-021

PANEL: Pamela Reilly, Chairperson

Linda Newton Sandra Oakley

APPEARANCES: The Appellant, [text deleted], was represented by

[text deleted];

Manitoba Public Insurance Corporation ('MPIC') was

represented by Anthony Lafontaine Guerra.

HEARING DATES: December 21, 2021; December 22, 2021; December 23,

2021; January 21, 2022

ISSUE: Whether the Appellant is entitled to PIPP benefits for

his lower back complaints and spinal surgery.

RELEVANT SECTIONS: Section 70(1) of The Manitoba Public Insurance

Corporation Act ('MPIC Act')

AICAC NOTE: THIS DECISION HAS BEEN EDITED TO PROTECT THE APPELLANT'S PRIVACY AND TO KEEP PERSONAL INFORMATION CONFIDENTIAL. REFERENCES TO THE APPELLANT'S PERSONAL HEALTH INFORMATION AND OTHER PERSONAL, IDENTIFYING INFORMATION HAVE BEEN REMOVED.

Reasons For Decision

Background:

The Appellant suffered injuries in two motor vehicle collisions that occurred on the highway within minutes of each other on December 21, 2008 ("the MVAs"). The first occurred when a car, attempting to pass, struck the Appellant's vehicle on the rear-end driver's side.

After the Appellant and the driver had pulled to the side of the road to exchange particulars, the Appellant's vehicle was next struck at much greater speed by a ½ ton truck. This impact launched the Appellant's vehicle into the ditch, resulting in a third impact. These collisions damaged the Appellant's vehicle to such an extent that MPIC deemed it to be a total loss.

RCMP were called to the scene. The Appellant and his family attended the local hospital. Emergency room staff examined the Appellant's neck and head, as well as a small laceration on his left hand. They noted that the Appellant had neck pain and back tenderness at T7. The examining physician diagnosed whiplash.

Over the years, the Appellant experienced lower back pain, which he attributed to the MVAs. He received chiropractic treatment from chiropractor, [text deleted]. His treating physician, [text deleted], placed him on a waiting list for lumbar back surgery. The Appellant underwent anterior discectomy and arthroplasty surgery performed by [Appellant's orthopaedic surgeon] in October 2017.

An Internal Review Decision ("IRD") dated November 16, 2017 upheld a July 18, 2017 Case Manager Decision ("CMD") that denied the Appellant PIPP benefits for his lower back spine condition on the basis that this condition was not caused by the MVAs. The Appellant appealed the IRD to the Commission and seeks PIPP benefits for his lower back spinal pain and surgery.

Issue:

Whether the Appellant is entitled to PIPP benefits for his lower back spine complaints and his 2017 surgery. The fundamental question is whether the Appellant's lower back pain (and ultimate surgery) is causally related to the MVAs.

The Hearing:

As a result of safety considerations arising from the pandemic, the hearing of the appeal was conducted remotely, through videoconference technology.

Decision:

The Panel finds, on a balance of probabilities, that the MVAs caused the Appellant's lower back spine condition, which necessitated his 2017 surgery. The Panel therefore grants the appeal and overturns the November 16, 2017 IRD.

EVIDENCE

[Appellant's orthopaedic surgeon] direct examination

To accommodate [Appellant's orthopaedic surgeon]'s schedule, the parties agreed that he would testify first. Appellant's Counsel reviewed [Appellant's orthopaedic surgeon]'s credentials and medical history. After his testimony, the Panel qualified [Appellant's orthopaedic surgeon] as an expert witness in the specialty of orthopaedic surgery, to give opinion evidence about spinal injury and surgery. This was not challenged by MPIC Counsel.

[Appellant's orthopaedic surgeon] began by saying that any high impact, rear end collision can certainly have dire consequences over time. His practice, when assessing

a patient, is to obtain a thorough history, conduct a physical examination and follow up with special examinations. The physical examination is critical for obtaining objective information, as well as obtaining and assessing the patient's subjective symptoms.

Based upon his examinations, [Appellant's orthopaedic surgeon] felt that the Appellant had an average to above average pain threshold. He said that, in general, during the acute phase of an injury other symptoms may be masked or minimized. Over time, this masking falls away.

As part of his typical physical examination of a patient, [Appellant's orthopaedic surgeon] said that he always personally reviews imaging (x-rays, CT or MRI) to look for corresponding changes between imaging, which in turn, helps him formulate a diagnosis. [Note: Throughout his testimony, [Appellant's orthopaedic surgeon] accessed and viewed the actual images on his computer when discussing or responding to questions.]

Based upon his review of the imaging, [Appellant's orthopaedic surgeon] opined that the Appellant had an L4-5 disc injury. He specifically viewed the 2011 image which, he said, showed that the disc space was well maintained. However, the 2016 MRI showed "a rapid decrease in disc height and protrusion in L4-5."

[Appellant's orthopaedic surgeon] explained that whenever you have a disc injury "there is a cascade of things that happen on a microscopic level." He used the analogy of having a slow leak in a car tire (or balloon), in which a bulge can result from the weight

placed on the tire. Similarly, desiccated (i.e., loss of hydration) discs will bulge when pressed upon. He said that the integrity of the disc is lost.

When asked what caused the Appellant's disc L4-5 herniation, [Appellant's orthopaedic surgeon] conceded that it is impossible to specifically say what caused this. However, he explained that we know there was a "heavy accident" (i.e., the MVA). In this case, the Appellant presents with one injury; that is, to his L4-5 disc. In the 2016 MRI all of the other discs are "pristine." Therefore, he concluded, "that specific disc (L4-5) was injured in that specific time".

When asked if there were other probable causes of the Appellant's L4-5 disc herniation, [Appellant's orthopaedic surgeon] responded that other causes would have to be found in the Appellant's history, and what happened since then. He said that there were no additional injuries of which he was aware, including no additional injuries of the adjacent discs.

With reference to a September 30, 2011 MPIC file note in which the Appellant advised that he had played contact sports all of his life without any neck problems, [Appellant's orthopaedic surgeon] was asked whether the Appellant's sports activity caused the L4-5 problem. [Appellant's orthopaedic surgeon] responded that there would need to be a specific injury related to the sport, and further, since the Appellant's other discs are not affected, he did not believe that sports caused the injury.

Appellant's Counsel directed [Appellant's orthopaedic surgeon] to a referral letter dated March 21, 2017, which stated that the Appellant was a "sportsman hockey player" who

works as an [text deleted] "in an office half time and [test deleted] the other times". [Appellant's orthopaedic surgeon] had also acknowledged in his November 1, 2016 report that the Appellant's work "involves a lot of standing and lifting." Therefore, did these activities cause the L4-5 disc herniation?

[Appellant's orthopaedic surgeon] responded that the activities did not cause the herniation, although they may have aggravated it. His rationale was based upon the fact that multiple movements and lifting can aggravate an already desiccated disc. When he looked at the genesis of the disc herniation, he repeated that after the injury occurs, it causes a cascade of symptoms that vary over time. He explained that symptoms can be acute when the injury happens, but over time, with the shifting of vertebrae and the changes in load on the vertebrae, this changes the pain in different ways.

When asked about the significance of the absence of reported low back symptoms by the Appellant, [Appellant's orthopaedic surgeon] repeated that, often, there is no record because people will manage with either massage therapy or over the counter medications, which go unrecorded. However, there may be emergency room records showing complaints of flare-ups, "which is also part and parcel of what you would expect."

Appellant Counsel asked [Appellant's orthopaedic surgeon] to comment on an October 3, 2011 chart note by the Appellant's physician, which documented (among other things), as follows:

S: previous saturday-sudden back pain - still [having] hard time moving around due to pain, cannot recall injury ... wanted to paint shed - then sudden pain, went to ER on 25 sept...

[Appellant's orthopaedic surgeon] responded by referring to his analogy of a balloon that has lost air. He said that a desiccated disc can be affected by activities such as tying a shoe lace, or bending to pick up paper. These activities can be enough to cause acute irritation and then muscle spasm.

When asked how certain he was that the MVAs caused the Appellant's lower back deterioration and need for surgery, [Appellant's orthopaedic surgeon] stated that his opinion is based upon his many years of experience with disc displacement and spine surgery. He considered the Appellant's age at the time of the MVAs [text deleted] and said that "no one has disc degeneration at [age]."

Further, he rested his conclusion upon the imaging which showed that the Appellant's "adjacent discs are very well maintained." He reiterated that "the adjacent levels are absolutely pristine. They have not been damaged by anything else." Considering that the MVAs presented as the only specific incident, he concluded that it was the cause of the Appellant's lower back spinal injury.

[Appellant's orthopaedic surgeon] cross-examination

In response to MPIC Counsel's questions, [Appellant's orthopaedic surgeon] confirmed that he did not treat the Appellant prior to 2016 and relied on the Appellant's report that he had back pain ever since his MVA. [Appellant's orthopaedic surgeon] emphasized that his conclusion about causation was not simply based upon what the Appellant told him, but also his subsequent physical examination and review of imaging. Alluding to

the documentary evidence, Counsel asked [Appellant's orthopaedic surgeon] to consider a scenario in which the Appellant's history of symptoms was in fact different, and whether that would change his opinion. He responded this was unlikely.

[Appellant's orthopaedic surgeon] did not dispute that the Emergency records and Primary Health Care Report for December 21, 2008 (the date of MVA), do not specifically reference "back pain." When asked about [Appellant's physician]'s August 27, 2010 letter to the [text deleted], which did not document any 'back pain', [Appellant's orthopaedic surgeon] said that this also did not change his opinion on causation, explaining as follows:

"No. Back pain does not have to be immediate; it's a cascade. It can take years. After a few months it develops. That's not unusual."

MPIC Counsel pressed [Appellant's orthopaedic surgeon] on whether he found it odd that the Emergency and Triage Record from the date of the accident, showed no complaints of a lower back issue. [Appellant's orthopaedic surgeon] maintained his position that one does not need [to experience] immediate pain; it can occur over time. He confirmed his comment to mean that there was an injury with no symptomology.

In response to further questions, [Appellant's orthopaedic surgeon] conceded that the Appellant could have had a non-symptomatic pre-existing back injury, but he did not know. [Appellant's orthopaedic surgeon] also conceded that there would be no point to taking an x-ray (during the ER admission) if there were no complaints.

In response to questions that referenced the two chiropractic and one physiotherapy reports from 2009 to 2011, [Appellant's orthopaedic surgeon] acknowledged that lower

back pain was not recorded on those reports. Nonetheless, this did not alter his opinion on causation for the L4-5 injury.

MPIC Counsel questioned [Appellant's orthopaedic surgeon] about the October 3, 2011 medical record of [Appellant's physician] in which the Appellant complained of sudden lower back pain the prior week, which necessitated a visit to emergency. When asked if this presentation was consistent with someone who was injured in 2008, [Appellant's orthopaedic surgeon] said it was possible, and then clarified that it was probable based upon the subsequent imaging from 2013.

MPIC Counsel questioned [Appellant's orthopaedic surgeon] about the October 4, 2011 x-ray image and radiologist report. After reviewing the specific image, [Appellant's orthopaedic surgeon] stated that, in his opinion, there was retrolisthesis of L4-L5; meaning "some instability of the L4-5 discs." [Appellant's orthopaedic surgeon] conceded that his findings are different from the radiologist's report, but simply stated he cannot speak for the other radiologist about his findings.

MPIC Counsel referred [Appellant's orthopaedic surgeon] to the Radiology Report of [radiologist] which also interpreted the Appellant's October 4, 2011 lumbar spine imaging. [Appellant's orthopaedic surgeon] agreed with [radiologist]'s finding of retrolisthesis of L4-L5 but disagreed that there was "mild disc narrowing at L2-3 and L3-4". [Appellant's orthopaedic surgeon] opined that there was no disc narrowing at those levels. [Appellant's orthopaedic surgeon] maintained his opinion of seeing L4-5 disc degeneration as early as October 2011.

Counsel referred [Appellant's orthopaedic surgeon] to the CT imaging report dated March 18, 2013 and asked for his interpretation and comparison between this and the prior 2011 imaging. [Appellant's orthopaedic surgeon] stated that the March 2013 imaging "shows further collapse of the L4-5 disc height". When asked if this showed worsening of the condition, [Appellant's orthopaedic surgeon] responded, "it sure does in terms of loss of disc height at that level [L4-5]. It's an indication the disc is collapsing."

In response to Counsel's question about whether [Appellant's orthopaedic surgeon] concurred with the findings that the "neural exit foramina are not narrowed", [Appellant's orthopaedic surgeon] responded that he disagreed with the reported finding that there were "minor age-related degenerative change".

[Appellant's orthopaedic surgeon] said that the degenerative changes were the result of the injury. He said that if the changes were 'age-related', you would expect to find those changes at all levels. He elaborated, as follows:

This is not physically possible. Your left hand doesn't age quicker than your right hand. The changes that develop during aging is [sic] due to arthritis, due to the loss of joint space. [This] typically happens in any joint, including the back. So, you would expect to see it at all levels – not necessarily the same at every level. But here, [its] not seen below or above.

Counsel referred [Appellant's orthopaedic surgeon] to the April 3, 2013 Initial Therapy Report from physiotherapy that documented symptoms of intermittent flare-ups of lower back pain, especially with sitting or lifting, and occasional tingling down the left leg after prolonged sitting. [Appellant's orthopaedic surgeon] agreed that these symptoms are consistent with the CT scan findings, which can cause irritation of the nerve.

Counsel noted that, notwithstanding these symptoms, there was a "normal" neurologic examination, and asked whether he could explain this. [Appellant's orthopaedic surgeon] responded that this was simply due to the fact that there are two groups of patients; one group with severe nerve pain, which is typical of an acute disc problem and a second group with mechanical pain that develops over time, resulting in more leg pain than back pain.

MPIC Counsel referred [Appellant's orthopaedic surgeon] to the MRI image dated January 29, 2016 and asked him to comment on his interpretation of that image. [Appellant's orthopaedic surgeon] testified that the images show that all of the other discs are unchanged and "absolutely pristine." However, "at L-5 there is further collapse of the disc height and now there is a protrusion at the mid line". There were also "modic" changes, meaning discolouration, which is interpreted as minor instability of the spine.

MPIC Counsel questioned [Appellant's orthopaedic surgeon] on whether the Appellant's hockey playing and requirement to lift [text deleted] would impact his lower back condition prior to his MVA. [Appellant's orthopaedic surgeon] responded that many hockey players do not have lower back problems. Also, part of treatment is to increase activity and thereby increase one's core strength so as to avoid surgery. Essentially, "a high degree of fitness maintains a good back."

[Appellant's orthopaedic surgeon] said that he encourages people to maintain their current job and, while carrying 40 pounds "perhaps has a risk of causing pain", as long as the Appellant could carry that weight, [Appellant's orthopaedic surgeon] would advise

him to "do that as long as possible." These facts about the Appellant's history did not deter [Appellant's orthopaedic surgeon] from his opinion that the MVAs caused the Appellant's L4-L5 disc injury.

When asked about the nine-year interval between the Appellant's MVA and the development of lower back pain leading to surgery, [Appellant's orthopaedic surgeon] commented that this time frame was "at the upper end, but not unusual". He further stated, as follows:

There is no way to predict when it would happen. His [the Appellant's] high level of fitness and strength allowed him to maintain longer than most.

[Appellant's orthopaedic surgeon] maintained his opinion that the Appellant's L4-5 degenerative disc change was not age-related. In response to questioning, he reiterated that the change is seen "at just one level" and therefore "not likely age-related."

MPIC Counsel referred to the MPIC Health Care Service ("HCS") opinion of physiatrist [text deleted], dated July 10, 2017, which referred to the Appellant's acute/subacute presentation post-MVA, and the diagnosis of whiplash, without documented lumbar symptoms. Counsel suggested that [Appellant's orthopaedic surgeon] did not place the same importance on those facts as [MPIC's HCS physiatrist]. [Appellant's orthopaedic surgeon] responded, "I'm just saying it can be silent initially and develop over time." Further, he was not surprised by the fact the Appellant was not complaining of back symptoms closer to the time of the MVA.

MPIC Counsel referred to the HCS opinion [MPIC's HCS physiatrist] dated November 15, 2019 that commented on [radiologist]'s findings of the Appellant's October 4, 2011 lumbar spine x-ray. In reviewing [radiologist]'s interpretation of the x-ray, [MPIC's HCS physiatrist] had opined at page 5/6, as follows:

From my review of the... cervical and lumbar spine x-rays [sic] results, there are no worrisome findings. That said, imaging results need to be interpreted in the context of a patient's clinical presentation (symptoms and objective examination signs). In general terms, when looking for evidence of spine pathology on imaging, attention is directed to the spinal canal and foramina looking for evidence of the spinal cord or exiting nerve roots being compressed by bone or herniated disc(s). At the L4-5 spine level, the radiologist queried possible canal/foraminal narrowing.

Counsel asked if [Appellant's orthopaedic surgeon] shared [MPIC's HCS physiatrist]'s interpretation, to which [Appellant's orthopaedic surgeon] responded, "Absolutely not". His response was based upon the fact that [MPIC's HCS physiatrist] did not note, and "completely ignored", the loss in disc height. In response to Counsel's question about whether this was imperative and should have been considered, [Appellant's orthopaedic surgeon] responded, "absolutely". [Appellant's orthopaedic surgeon] maintained his opinion that the MVA led to "the cascade event" of the Appellant's injury that ultimately required back surgery.

Appellant direct testimony:

The Appellant testified that at the time of the MVAs he was a healthy, able bodied [age]. He led an active life with family and friends. He had been married for [text deleted], and the couple had a [child].

The Appellant described the MVA collisions of December 21, 2008 that occurred at approximately 1:30 a.m. on [highway], which is a four-lane, paved and undivided

highway. The Appellant's wife was driving their [vehicle]. The Appellant was in the front passenger seat and their [child] was in the back seat, seated in a rear-facing, child's car seat.

The Appellant said that the first collision took place when a passing car struck the [vehicle]'s driver-side rear fender, which popped their tire. The passing vehicle spun out of control, coming to a stop on the opposite side of the highway, now facing the Appellant's [vehicle]. The Appellant's wife was able to pull over and stop their [vehicle] on the paved shoulder. The Appellant described that impact as "not aggressive."

The Appellant said that he exited the [vehicle] to see if the occupants of the other vehicle required assistance. (The Appellant described this as a small vehicle with apparent damage. Neither vehicle was driveable.) The Appellant returned to the passenger seat of his [vehicle] to use his cell phone to call a tow truck. He looked behind and saw oncoming headlights. He realized that another vehicle, travelling at highway speed, was going to hit his parked [vehicle].

Thinking of his wife and child and the impending collision, he said that he turned to his left, and leaned sideways in an attempt to protect them both. This was his position when the second collision occurred. The Appellant believed this second collision was at "road speed". He described the force of the impact as causing their [vehicle] to be "launched" and turned sideways, which "popped" the remaining tires. The [vehicle] then impacted the snowbank and ditch on their side of the highway. He referred to this as the third hit.

The Appellant recalled "glass everywhere", that "the dash blew apart" and there was "a lot of dust and smoke and plastic everywhere". When asked what he meant by 'the dash blew apart', the Appellant wondered "if it was air bags" deploying and said, "the car was pretty smashed". He described "both seat backs were broken…the seats were broken off the back rests." When the [vehicle] came to rest in the ditch, the Appellant recalled that he was "almost laying across [his] wife."

The Appellant described the immediate moments after the MVAs, as follows"

I was shocked. So much adrenaline. I was – my wife was screaming and my [child] was in the back seat. Just the noise was the immediate – what I noticed.

In terms of how the MVAs impacted his lifestyle, the Appellant responded that he went from "clean, healthy living" to a situation in which getting to his chiropractor became "contentious". He explained further, as follows:

I quit sports. I quit everything to the point where I had surgery. I couldn't go to the zoo. I couldn't pick up the kids. I existed going to work to make some money and lived on pills till the surgery.

After returning home from the 3:00 a.m. hospital visit immediately following the MVAs, the Appellant recalled laying in bed "and everything hurt." He said injury symptoms started the next day with his hand, and he wondered what was wrong with his back.

When asked to describe his injuries, starting with the most severe, he said the most severe was a joint in his back "being crushed". He had back spasms; a spinal injury. He said the whiplash in his neck "was significant", which prohibited him from turning his head the next day. He thinks this injury initially overshadowed his back injury.

He described overall body pain. His hand was quite sore and always hurt, until hospital staff later discovered a previously unnoticed piece of glass lodged in his hand, and removed it. He described, "My lower back pain was the worst."

When asked to describe which injury was immediate and which was gradual, the Appellant testified that his immediate symptoms involved the whiplash to his neck, which was quite sore. He said, "my lower back, definitely. My back hurt throughout". His neck and general pain symptoms gradually "faded out". Regarding his lower back, he said, "it seemed there was more going on there than I thought."

The Appellant initially received 40 chiropractic treatments. He had physiotherapy treatment but could not recall the number of visits. He also attended "many" massage therapy treatments. He said that after the initial chiropractic and physiotherapy treatment, he attended massage therapy "a lot" and "as often as I could get them"; "sometimes once per month, sometimes less". He said massage gave temporary relief at best, and he did not have insurance coverage through his employer.

He said that he took "a lot of medications". These were over the counter medications that consisted of Advil, Tylenol, and Ibuprofen. He then progressed to Aleve and Robaxacet, and then relied heavily on Tramacet. The Appellant confirmed that he was "100% healthy" before the MVA.

Appellant's counsel referred him to the MPIC file note, and two medical report references that document the Appellant's participation in "contact sports", his work involving a "lot of standing and lifting", and in particular, lifting [text deleted]. The

Appellant confirmed that he played contact hockey that allowed body checking. He denied ever experiencing any lower back injury from playing hockey.

The Appellant testified that at the time of the MVAs he worked with a [text deleted] company, which he described as a "total desk job." In approximately 2013 he switched jobs, and his duties then included loading [text deleted] in the spring season. However, he explained that "we have guys in the yard that do that", and that he "may help out". The Appellant denied experiencing any work-related back injury.

The Appellant recalled his chiropractic treatment, which began shortly after the MVAs. He recalled that he had reduced range of motion and pain in his neck and spine. He said that throughout his treatment, the chiropractor worked on his "lower, middle back – everything." He believed that, because of the way he was turned at the time of the truck impact, followed by the impact into the ditch, his back "was out of alignment". He said the chiropractor "worked on that and my lower back."

Prior to the MVAs, the Appellant said that the only time he visited a doctor was to validate his Class 1 driver's licence. Otherwise, he had no need for medical visits. After the MVA he said that he "saw the doctor quite a bit."

The Appellant spoke of his medical visit on October 3, 2011. He testified that he was outside, painting with a sprayer. He said that he "turned to the left to reach over and grab a paint thing... and got a sharp shooting pain, and I was kind of locked up." When asked if he stated (as noted in the medical chart) that he "cannot recall injury", the

Appellant was not sure what the entry meant, but believed it meant that he could not recall how he turned while painting.

The Appellant confirmed that, as stated in the medical record, he went to the "ER" on September 25, 2011 to investigate his back pain. He explained that the pain was terrible and he could hardly move his lower back. He underwent an MRI of his lower back and met with [Appellant's orthopaedic surgeon], for a physical examination. He believed [Appellant's orthopaedic surgeon] related his lower back pain to the MVAs, "Because I had nothing else to offer" in terms of an injury.

The Appellant attributed his lower back pain and surgery to the MVAs based upon the mechanism of the collisions. That is, his body was in a twisted position at the time of impact from the truck and then with the ditch. He testified that he had no prior back issues. There is no family history of lower back issues. Prior to the MVAs, he was fit, and living a normal life.

Appellant cross-examination testimony

In cross-examination, the Appellant confirmed that at the time of the MVAs, he held a desk job as a [text deleted]. In 2011, the Appellant was then employed as a [text deleted], which he described as an office job, test deleted]. In response to a question about job demands, the Appellant said that from April to June "there was a little bit of loading" that was handled by other employees who used machinery for that job.

The Appellant admitted that he "sometimes" lifted [text deleted]. He said that he "did not lift a lot", and the bags were not heavy for him. He agreed with the statement in the

report of physician [text deleted] that he worked in the office and lifted [text deleted], but disagreed that he did this for half of the time on the job.

MPIC Counsel questioned the Appellant about his hockey playing and level of physical fitness. The Appellant agreed that he was in a senior men's hockey league at the time of the MVAs, but since the MVAs he has not joined a league or played again. He said that his current level of physical fitness is not as high as it was in his [age]. Nonetheless, since the MVAs he has tried to maintain his core and back muscle strength. He described this as a different type of fitness, which he achieves through healthy eating and Pilates exercise.

MPIC Counsel reviewed the mechanism of the collisions. The Appellant confirmed that he was in the passenger seat, twisted and leaning to his left, when the truck struck the rear end of his [vehicle], towards the driver's side.

After the [vehicle] had impacted the ditch, the Appellant said that he was in a broken seat, laying horizontal across his wife. He looked up and believed the truck was about to drive away. He exited the [vehicle], approached the truck and was able to reach in and turn off the ignition. He described the driver as "very drunk".

MPIC Counsel asked about the emergency hospital records, which do not specifically document back pain. The Appellant confirmed that the initial visit lasted approximately 40 minutes and no x-rays or other imaging was taken. He said that he knows he talked about the accidents but was shook up and did not remember exactly what he told the medical staff. He recalled complaining about back pain.

MPIC Counsel referred to the MPIC file note that documents a phone call from the Appellant's wife, who commented on the Appellant's injuries. The file note states that the Appellant "has a sore neck and back", as well as a swollen left hand. The Appellant confirmed the accuracy of this report in conjunction with his prior testimony of being bed ridden the day following the MVAs. When asked to describe his sore back, the Appellant responded that he couldn't turn his head. He admitted that, initially, the injury "was most noticeable in my neck."

With reference to the return hospital visit on December 23, 2008, the Appellant said he returned because of ongoing symptoms that continued for weeks. Despite the lack of recorded back symptoms, the Appellant maintained that he mentioned his sore back. He said that the nurses appeared more concerned about his neck.

MPIC Counsel reviewed the two reports from the Appellant's chiropractor (Initial Report dated Jan. 6, 2009 and Track 1 Report dated Oct. 20, 2009) that document symptoms of neck, shoulder and wrist pain, as well as dizziness. Counsel queried that lack of documented back issues. The Appellant maintained that his chiropractor worked on his back during his visits, although admittedly the initial focus was on his neck.

In response to questions, the Appellant acknowledged that despite a referral from his chiropractor in 2009, he first attended physiotherapy in 2011. The physiotherapist's physical findings only refer to his cervical and thoracic spine. The Appellant repeated that his neck was the focus. He believed his pain was MVA related and, because he could not afford to pay for the treatment, he requested funding from MPIC.

The Appellant's medical chart notes dated October 3, 2011 refer to his hospital visit on September 25, 2011, due to sudden back pain. However, an MPIC file note dated September 30, 2011 documents a conversation between the Appellant and his Case Manager ("CM") about MPIC's denial of physiotherapy funding. The file note references "neck" problems but not back problems. Given the timing of the hospital visit in close proximity to the conversation with the CM, Counsel questioned why there was no mention of his back pain. The Appellant explained as follows:

"All I know is at this point, there's still lots of neck issues, big time, and then I had a back issue. That was one of the very first times where I had an episode where my back started to act up. That was the very first time. I was still struggling with a very sore neck. That's where I was at. I was dealing with a neck issue. And in between that, I ended up having a back issue...I was in a very, very bad way. It was tough."

As recorded in the October 3, 2011 chart note, the Appellant confirmed that massage did not fix, but only masked his back pain, saying: "It gets you through the day." The Appellant said that he had "done massage a couple of times" but could not recall with whom. The Appellant said that he "vaguely" recalled a prior Internal Review Decision (dated December 5, 2011) that granted him further physiotherapy treatment. The Appellant agreed that he followed up with further chiropractic treatments and continued with massage. It is not clear why the Appellant did not follow up with further physiotherapy.

Counsel questioned the Appellant about a number of medical records from 2013 to 2016 with which the Appellant generally agreed (to the best of his recollection) and which led to the Appellant's referral to [Appellant's orthopaedic surgeon]. The Appellant said that the "chronic pain" comment referred to his back pain for which he was taking

pain medications. The Appellant agreed that he has never been diagnosed with "chronic pain".

With reference to [physician]'s written comment (report dated March 21, 2017), that the Appellant "still carries a high degree of physical fitness", and Counsel's assertion that the Appellant maintained his previous level of physical activity, the Appellant disagreed and reiterated that he had stopped his previous level of physical activity. He testified that he used medication to get through his day, which consisted of going to work, and then to bed.

MPIC Counsel referred to the Appellant's Application for Review ("AFR") in which the Appellant stated that he included all copies of medical information he requested from the treating medical centre. The Appellant confirmed that he asked for a copy of his medical file. Counsel pointed out that certain relevant documents were missing from the AFR when compared to the medical documents located in the Index (impliedly, excluded on purpose).

The Appellant appeared puzzled and responded that he thought he had included all records, but perhaps he missed some. The Appellant then pointed out that the missing medical documents involved his back pain, which he definitely would have wanted to include, as they supported his claim.

The Appellant agreed that immediately after the MVA his neck pain was the predominant and painful issue, followed by his painful left hand, due to the undetected

piece of glass. He said that his lower back pain was present at the time of the MVA, but gradually worsened in September 2011.

The Appellant asserted that he never experienced neck or back pain during any of his sports activity, and the only time he ever experienced neck or back pain was after the MVAs, at which point he always experienced that pain.

[MPIC's HCS physiatrist] direct-examination

After questioning by MPIC Counsel, the Panel qualified [MPIC's HCS physiatrist] as an expert witness in the medical specialty of physiatry to provide her opinion about the Appellant's musculoskeletal injuries based upon her forensic review of the Appellant's medical records.

[MPIC's HCS physiatrist] provided five separate opinions at the request of MPIC all of which spoke to the issue of whether, on a balance of probabilities, the Appellant's back complaints and his need for surgery were related to his MVAs. In each of those reports [MPIC's HCS physiatrist] opined that the Appellant's MVA injuries did not explain his back complaints or the need for surgery.

[MPIC's HCS physiatrist] reviewed the mechanism of the injury and opined that a non-belted passenger was at increased risk of injury compared with a belted passenger. [MPIC's HCS physiatrist] referred to the emergency room record. She interpreted the fact that the Appellant "walked" into the emergency room and that no investigations (e.g., blood work, imaging) were conducted, as an indication that, variously, he "did not sustain overly serious injuries", that his "injuries don't warrant [investigations]" and the

investigations go "with minor injures being sustained." [MPIC's HCS physiatrist] considered it unlikely that other injuries were masked.

[MPIC's HCS physiatrist] reviewed the medical chart record of tenderness at (the Appellant's) T7 vertebrae, which she said was consistent with the Appellant's testimony that he reported back pain immediately after the MVA.

MPIC Counsel asked about the MPIC file note dated December 22, 2008 in which the Appellant's wife advised that the Appellant had "a sore neck and back." [MPIC's HCS physiatrist] testified that the "back" covers the area from the base of the neck to the pelvis, and it would be surprising to not have discomfort within 48-hours after an injury. She said the body goes into "inflammatory mode" within 24 hours, as the body attempts to heal. She testified that it was improbable that the body would not be making this (inflammatory response) known.

The December 23, 2008 Triage Record documented the Appellant's later complaints involving his left hand cut and headaches, but no back pain. [MPIC's HCS physiatrist] interpreted this record to mean that because back pain was not recorded, then the Appellant's back "was not overly sore."

[MPIC's HCS physiatrist] stated that the temporal relationship between the MVA and the report of injury is definitely important. Unless the injury was reported within the first week,

[MPIC's HCS physiatrist] would not link the injury to the MVA. She testified that, "As soon as the body is injured, its immediate response is inflammatory mode and you feel pain." She said that beyond the first week, if there were no complaints of an injury such as to the lower back, she could not trace it back to the MVA.

In response to Counsel's question about whether an injury could have been minor, without an inflammatory response, but develop over years, [MPIC's HCS physiatrist] testified that she had not found literature that supported a situation in which "something small" had happened, and "this insidious thing" would worsen over time.

[MPIC's HCS physiatrist] disagreed with [Appellant's orthopaedic surgeon]'s analogy of a disc being like a tire that lost air and therefore bulged. She said that the disc has a tough outer lining with a lot of nerves and if something is irritating that disc then, for most people, they would be aware of that fact.

When asked about the chiropractic report of [Appellant's chiropractor] dated January 6, 2009, which records "vertical subluxation complexes" (VSC) of the cervical, thoracic and lumbar spine, [MPIC's HCS physiatrist] interpreted this as follows:

"To me it means that what's happening is that the muscle tension in the back, and the increased tone, is the logical reason to explain why the spine is a bit out of alignment. 'Subluxation' means a subtle movement."

When asked if she thought this explained what was happening with the Appellant's back, she responded, "not in terms of the disc".

She said subluxation and whiplash after a motor vehicle collision would be expected, and she would not read more into the report beyond increased muscle tone in the Appellant's back. These findings are not significant for a lower back injury, otherwise the diagnosis would not simply state "whiplash". She said there was no specific reference to the lower back.

[MPIC's HCS physiatrist] believed that the significant injury was the Appellant's whiplash neck injury. She explained that whiplash is the muscle reacting to injury, and while the neck injury did not mean there was not a ripple effect down the back, the point of insult was the neck. This did not extend to the L4-L5 disc, which ultimately required surgery.

[MPIC's HCS physiatrist] testified that complaints of low back pain one year post-MVA would be unexpected. She said that, often, there is no identified reason for low back pain. This is because there is a lot of load on the lower back. Therefore, movement as simple as bending over to pick up a sock can cause low back pain.

[MPIC's HCS physiatrist] questioned why, if one had a back problem and was receiving chiropractic treatment, they would not ask to have their lower back treated. When next asked about the December 2, 2009 MPIC file note, [MPIC's HCS physiatrist] questioned why the Appellant did not mention his lower back specifically. She then conceded that she "can't read a lot into this."

[MPIC's HCS physiatrist] considered the physiotherapist's Initial Therapy Report dated June 10, 2011 and noted the 1 ½ year delay between the MVAs and the appointment. For her, this delay suggested that "the lower back wasn't a significant issue, unless there are some other reasons 1 ½ years went by." With reference to all of the

Appellant's medical records, which do not record lower back pain, [MPIC's HCS physiatrist] concluded, "Most people choose what is bothering them the most...That tells me there is no low back issue, but only a neck issue."

Counsel asked [MPIC's HCS physiatrist] to comment upon why the Appellant would not raise his low back pain complaints with the Case Manager on September 30th, considering the fact that on September 25th he attended to the hospital emergency for lower back pain. [MPIC's HCS physiatrist] responded, as follows:

"I don't recall seeing a September 25, 2011 emergency record. I don't know why, other than if there was no reason to relate it to the motor vehicle collision. There's no temporal relationship. Maybe he didn't think he needed to bring it up with his Case Manager."

MPIC Counsel referred to the October 4, 2011 x-ray, and asked [MPIC's HCS physiatrist] to respond to [Appellant's orthopaedic surgeon]'s opinion that the Appellant's narrowed L4-L5 disc space was not age-related degeneration because the rest of his spine was not affected. [MPIC's HCS physiatrist] responded, as follows:

"When reading an imaging report it's more likely that for lumbar spine, it's going to be L5-6 or S-1. A good clinician treats the patient but not the image. So, the image may show something, but if the patient can move fully and there are no neurological signs, no sensory deficits, no change in bowel or bladder functions — that's a real sign for lower back. If the report is 'no problem', that is the reassurance that the physician needs.

If the patient says everything is okay, then no imaging is ordered. So, would I get concerned? Well, the radiologist is not telling me I should be concerned, so I wouldn't be."

When asked about the Appellant's medical chart, which stated the Appellant "can hardly walk due to pain", [MPIC's HCS physiatrist] responded saying that very few people have not experienced back pain. She interpreted this record as meaning that "the actual act of moving the body is causing pain to [the Appellant's] back" but "not that a nerve was

pressing on it." [MPIC's HCS physiatrist] said that the Appellant's physician treated the Appellant's back problem as being caused by muscle spasm, and prescribed anti-inflammatory and muscle relaxant medication.

[MPIC's HCS physiatrist] considered the CT scan results found in the chart note of March 21, 2013. She noted that the significant finding was at L4-L5. She concluded that there were minor age-related changes at L4-L5 but the nerve is not being pinched. She was not at all surprised to see degenerative age-related changes in a [age] patient such as the Appellant.

According to [MPIC's HCS physiatrist]'s review of many articles related to spine aging, the statistics indicated that anywhere from 38-42% of [age group] can show age related changes. The trend increases from there to the point where most people show degenerative changes by age 60. [MPIC's HCS physiatrist] does not "get excited" about the changes.

MPIC Counsel pointed out that the imaging only showed degenerative changes at the L4-L5 to which [MPIC's HCS physiatrist] responded, as follows:

"It would be degenerative changes over all. [emphasis added] The weakness point in the spine happens to be at L4-L5...

If a person is [age] and had degenerative changes and I was asked where the changes would be, I'd say L4-5 because more changes happen at this point."

[MPIC's HCS physiatrist] said that there was nothing to indicate an issue at the Appellant's lumbar level, post-MVA. In 2011, the Appellant started to complain of low back pain. She said we're given a "whisper" of something clinically evident with the

2013 CT, but it was not until the 2016 MRI that one can see actual pathology; that is, narrowing at the nerve root. She compared the 2011 and 2013 images and noted that in 2013, there was now evidence of an ongoing process.

Counsel asked, 'why not look at this as events from the MVA that slowly developed?' [MPIC's HCS physiatrist] responded, as follows:

"We don't know that. What we see on the CT of 2011, we don't know the age of that little bump. It could have been there for 5, 10, 15 years. We don't know when it happened. The important thing is that the protrusion in 2011 is not pressing on anything. It's not appropriate to send him to a surgeon. I can say that now we have the 2011 imaging, we can compare it to 2013. I'm saying that there is progression here in terms of the pathology process. It's an ongoing process here. Now that the space for the nerve root to get out is smaller, and that can be a problem."

[MPIC's HCS physiatrist] commented on the Appellant's medical history, as recorded by [Appellant's orthopaedic surgeon], in which the Appellant reported an Oswestry (disability index) score of 50/100, and a VAS (visual analog scale) pain score of 9/10. [MPIC's HCS physiatrist] referred to these scores as "crippling", "bad", "more than she would have expected" and "a bit over the top in presentation; more than I would have expected."

[MPIC's HCS physiatrist] disagreed with [Appellant's orthopaedic surgeon]'s opinion that the Appellant's lower back condition was the result of his MVAs. [MPIC's HCS physiatrist] referred to "trauma" as a "definite physical insult to the body"; that is, more than "a tiny thing where you don't know what happened". She stated that she is aware the Appellant was a hockey player and hockey players "get slammed to the boards, and it happens over and over in a game." She said she was probably working with more information that [Appellant's orthopaedic surgeon] and concluded, as follows:

"I can't say one specific injury happened. But the weak link is the L4-L5, so insult can happen in more than one way. Either a direct insult to the spine or an over-and-over insult to the spine – it tells me in L4-L5 there's a lot of stress – whether compiled over time or from a specific insult. Regarding the degenerative [process] – you would likely see in more than one area." [emphasis added]

She continued, as follows:

"That area seems to take more of the stress. I don't see why you can't have some localized stress to that area. But, being pressed on — I don't think — it's not just the aging process. I would say something more [happened] to the L4-L5 area. [emphasis added]

MPIC Counsel then led with the following statement:

You don't dispute the back condition, or the requirement for back surgery. You acknowledge the back condition but you're not able to say how he got the back condition. But, you can say it's more likely than not, from the motor vehicle accident in 2008."

[MPIC's HCS physiatrist] agreed. She also agreed with counsel's suggestion that something happened to the Appellant's lower back, "just not the MVA", and that she could not see evidence of what that 'something' would be, it was "just something else."

[MPIC's HCS physiatrist] agreed that maintaining a high degree of physical fitness, especially strengthening core muscles, would benefit the Appellant, but she would not recommend hockey as this put a person at higher risk for back injury. In terms of the MVA itself, her concern was the fact that the Appellant was not belted, which made him more vulnerable for back injury.

[MPIC's HCS physiatrist] stated that she was not surprised by the Appellant's early symptoms of back pain, but emphasized that his health care professionals never provided a diagnosis about the back, only the neck. Counsel drew [MPIC's HCS physiatrist]'s attention to her report dated December 14, 2018 in which [MPIC's HCS

physiatrist] questioned [Appellant's chiropractor]'s memory. At this point the Panel interrupted and noted that, although no objections had been raised, the Panel was concerned about the speculative nature of this (and some prior) testimony. [MPIC's HCS physiatrist] agreed that she put little weight on [Appellant's chiropractor]'s report.

Counsel referred to [MPIC's HCS physiatrist]'s report dated July 24, 2020, which noted that [Appellant's orthopaedic surgeon] did not consult with the Appellant until 2016 and therefore did not have the benefit of evaluating the Appellant in the important acute period post-MVA. [MPIC's HCS physiatrist] testified that [Appellant's orthopaedic surgeon]'s involvement in November 2018 was eight years after the MVAs. She presumed he was not privy to all of the medical assessments, or how the Appellant presented after the MVA. His information was based upon what referring physicians have summarized. [MPIC's HCS physiatrist] did acknowledge that "he does have access to [the Appellant]."

[MPIC's HCS physiatrist]'s report comments on [Appellant's orthopaedic surgeon]'s lack of reference to hospital records on the day of, or close to, the MVAs. When asked if this was fatal to his conclusion, [MPIC's HCS physiatrist] responded that, from her perspective, in order to say that trauma occurred to the lower back, there has to be some evidence of that trauma in the form of pain or objective signs of injury to that region.

[MPIC's HCS physiatrist] maintained that the time gap between the 2008 MVA and the Appellant's 2011 presentation with back pain was important. She did not see evidence that the Appellant's lower back condition was caused by the MVA.

[MPIC's HCS physiatrist] cross-examination

Appellant's Representative questioned [MPIC's HCS physiatrist] about her July 10, 2017 report in which she stated that the Appellant was a "seat belted driver". [MPIC's HCS physiatrist] could not recall, or point to, the source of this information, and agreed this was an error. [MPIC's HCS physiatrist] also could not point to the source of her incorrect comment in direct that, at some point during the MVAs, the Appellant had switched with his wife from being the driver to being a passenger. She believed that she had read a statement to that effect.

[MPIC's HCS physiatrist] conceded that the Appellant's lower back pain could have been missed during his initial assessment in the hospital emergency room record.

Appellant's Representative referred [MPIC's HCS physiatrist] to her statement that there is a "4+ years" gap between the June 3, 2013 PT assessment and the MVA, which therefore negated a "temporal relationship between the [Appellant's] presentation with low back pain and the PT's lumbosacral diagnoses". When referred to the December 22, 2008 MPIC file note that reports the Appellant's "sore neck and back", [MPIC's HCS physiatrist] could not confirm whether she reviewed that information, and admitted that she "did not read all the file notes." [MPIC's HCS physiatrist] agreed that a reference to 'back pain' could include 'lumbar pain.'

[MPIC's HCS physiatrist] agreed with Appellant's Representative that her July 10, 2017 report considered [Appellant's orthopaedic surgeon]'s finding that the Appellant's vertebrae on either side of L4-L5 were "pristine" but she chose not to comment on this finding. Further, [MPIC's HCS physiatrist] agreed that her conclusion that the Appellant sustained "no injury of significance" was a subjective term on her part, without definition.

[MPIC's HCS physiatrist] disagreed that whiplash disorder would include lumbar injuries, because whiplash is confined to the triangular area of the head, neck and upper back. She said whiplash occurs when the head, in particular, is flung back and forth, but the trunk area of the body as a whole, is not as vulnerable to being flung in the same manner.

[MPIC's HCS physiatrist] said that a tissue injury to other areas of the back would be referred to as a strain or sprain injury. The presumption is that whiplash refers to the neck. However, she had also read of circumstances where another part of the body can similarly be flung. She agreed that an unbelted person could be 'flung'.

When asked for the basis of her opinion that it was implausible that an injury would remain silent and only manifest later, [MPIC's HCS physiatrist] responded, as follows:

"If something is that incredibly small enough, or minor enough, that it doesn't warrant investigation or doesn't warrant a diagnosis, I don't see how that would mushroom into a significant pathological process many years later."

She agreed that she did not have specific evidence to support this opinion other than that she had not encountered it. [MPIC's HCS physiatrist] maintained her position that such a scenario was improbable.

[MPIC's HCS physiatrist] did not specifically recall her testimony from the previous day, in which she said a vertical subluxation complex ("VSC") was a slight misalignment from muscle spasm or tension, and represented a slight movement of vertebrae. However, she agreed that "if you have VSC it does not negate [whether] you could have a sprain or strain", but reiterated that there was no diagnosis of such in the records.

Despite her opinion that the subluxation referred to in [Appellant's chiropractor]'s chiropractic report was a "mild misalignment", [MPIC's HCS physiatrist] conceded that, not being a chiropractor, she was not in a position to interpret the severity of subluxation. She also conceded that the subluxations were injuries attributable to the MVA that required treatment.

Appellant's Representative referred to [MPIC's HCS physiatrist]'s report dated November 1, 2017. She confirmed her testimony in direct that she reviewed the medical records provided by the Appellant with his Application for Review. These included the Appellant's referral to massage therapy for his neck and back in January 2009 and October 2011. [MPIC's HCS physiatrist] agreed that despite the 2-year gap between 2009 and 2011 for massage therapy, she did not enquire about further chart notes "because I did not see the temporal relationship between...the diagnosis and the MVA."

Appellant's Representative referred to [MPIC's HCS physiatrist]'s November 15, 2019 report at page 3, in which she concluded, "From my review of the October 31, 2018 cervical and lumbar spine x-ray results, there are no worrisome findings". [The Panel

notes that the x-rays are dated October 4, 2011 and the reference to October 31, 2018 is the Radiology Report of [radiologist], DC.]

[MPIC's HCS physiatrist] conceded that "no worrisome findings" did not rule out an injury. [MPIC's HCS physiatrist] did not agree with [Appellant's orthopaedic surgeon]'s description that "retrolisthesis" meant instability. She noted that the radiologist "who's actually trained to read the x-ray" did not say the disc was unstable. She maintained her position that these were not worrisome findings, notwithstanding the radiologist's interpretation of retrolisthesis at L4-L5 and the Appellant's complaints of lower back pain.

[MPIC's HCS physiatrist] conceded in cross-examination that there was no evidence the Appellant suffered a pre-existing spine condition, no evidence of the Appellant experiencing a back injury from playing hockey, and no evidence that he injured his lower back as a result of lifting at work. [MPIC's HCS physiatrist] also agreed that she did not have enough information to dispute [Appellant's chiropractor]'s chiropractic report of November 20, 2018, which documented nine months of chiropractic treatment (January 2009 to October 2009) for the Appellant's "full spine".

Appellant's Representative reminded [MPIC's HCS physiatrist] of her testimony about [Appellant's orthopaedic surgeon] not having the benefit of the Appellant's emergency medical records and assessments, which led her to criticize his findings on causation. [MPIC's HCS physiatrist] conceded that she was incorrect in her statement when presented with the list of documents included in the Appellant's letter to [Appellant's orthopaedic surgeon], seeking his final opinion.

[MPIC's HCS physiatrist] maintained her opinion that when the Appellant presented with lower back pain in 2011 it was improbable that this was caused by the MVAs; something else was provoking his pain. [MPIC's HCS physiatrist] relied on research information that shows L4-L5 disc disease is common in the general population even with individuals as young as the Appellant, and that it is unusual to see a weakened disc without trauma. If there was trauma she would expect the symptoms to "show up sooner rather than later."

SUBMISSIONS

Appellant's closing submissions:

Appellant's Representative reviewed section 70(1) of the Act which defines "bodily injury caused by an automobile". He acknowledged that the Appellant bears the burden of proof, on a balance of probabilities, that his L4-L5 disc desiccation would not have occurred "but for" his MVA. Alternatively, Counsel submitted that the Appellant must show that the MVAs "materially contributed" to this injury.

Appellant's Representative submitted that the evidence clearly demonstrated that the L4-L5 disc was compromised during the MVA impacts. The disc gradually deteriorated and became suddenly symptomatic in September 2011, when the Appellant went to paint his shed.

Appellant's Representative submitted that it was undisputed that the Appellant was in excellent health and physical condition, and without low back problems prior to the MVA. The MVA was a series of impacts, the second of which was at highway speeds and, according to the testimony of the Appellant, caused enough force to break the back

of his seat. The Appellant was unbelted, and in a twisted position at the time of impact. The Appellant's awkward angle at the time of impact is relevant.

Appellant's Representative referred to the various documentation of the Appellant's reported pain symptoms, which involved the hospital emergency room record, the call to MPIC from the Appellant's wife reporting his back pain, and the chiropractic report of [Appellant's chiropractor] that documented symptoms that included neck and back pain, with particular tenderness over T7. Appellant's Representative submitted that the Appellant's initial focus was on his severe neck pain, which led to an omission of his less symptomatic low back pain.

Over time, the Appellant received chiropractic and massage therapy which alleviated some of his symptoms but not the low back symptoms, because this was a disc injury. Appellant's Representative submitted that the documentary evidence in the MPIC file notes and the Appellant's medical records confirm the Appellant's need for continuous treatment of his MVA injuries. Further, the Appellant testified to how his symptoms slowly escalated to the sharp decline documented in chart notes on October 3, 2011.

Appellant's Representative referred to the testimony of [Appellant's orthopaedic surgeon], who used the analogy of a deflating tire, to explain the Appellant's pattern of low back symptoms. This is consistent with a gradually failing lumbar disc, resulting from the MVA trauma. He emphasized that the Appellant's sudden low back pain experienced in September 2011 was an exacerbation of the low back injury the Appellant sustained in the MVAs.

He submitted that this assertion is supported by the testimony of [Appellant's orthopaedic surgeon]. Further, both [Appellant's orthopaedic surgeon] and [MPIC's HCS physiatrist] agree that the L4-L5 disc desiccation is not age-related. However, they disagree on what caused the weakness in this particular disc.

[Appellant's orthopaedic surgeon] disagreed with [MPIC's HCS physiatrist] that the Appellant's disc desiccation resulted from factors independent of the MVAs, such as, playing hockey or work activities. Appellant's Representative submitted that there is no evidence that the Appellant suffered a sports related or work related back injury, both of which are specifically denied by the Appellant. Therefore, sports and work cannot account for the Appellant's low back pain.

Appellant's Representative referred to the written report and the testimony of [Appellant's orthopaedic surgeon] in which he stated that, upon his review of the actual imaging, the significant findings related only to L4-L5 disc, and that surrounding discs were "absolutely pristine." In [Appellant's orthopaedic surgeon]'s opinion, a [age] does not have age-related deterioration at only one level. He therefore concluded that, because the Appellant had suffered no trauma other than the MVAs, then the MVA probably caused the Appellant's L4-L5 disc degeneration.

By contrast, [MPIC's HCS physiatrist] admitted that she could not say where the Appellant suffered his back injury, only that something other than the MVA caused his condition. During cross-examination, [MPIC's HCS physiatrist] agreed that disc desiccation can develop as a result of trauma; that symptoms can manifest either immediately or over time; and, it was not impossible for a mildly symptomatic disc

deterioration (caused by trauma) to lead to disc desiccation in a person under the age of 40.

Appellant's Representative argued that a whiplash diagnosis refers to the mechanism or trajectory of body movements, as opposed to specific injuries. He argued that this mechanism can lead to injury of multiple body parts, including the lower back discs. He said that despite [MPIC's HCS physiatrist]'s initial description of whiplash as being confined to the triangular area of the head, neck and shoulders, she did concede that in consideration of the specific mechanism of the Appellant's MVAs, she would not say that low back disc injury would "never" occur.

Appellant's Representative pointed out the apparent discrepancies in [MPIC's HCS physiatrist]'s testimony in relation to the chiropractic report of [Appellant's chiropractor]. He noted that [MPIC's HCS physiatrist] confirmed that the recorded vertical subluxation complexes were injuries caused by the MVA, and which required treatment. Appellant's Representative further cautioned that [MPIC's HCS physiatrist]'s memory was inconsistent in relation to the foundational facts of her report.

Appellant's Representative submitted that the Appellant's medical records document multiple prescriptions for massage therapy in 2009 and 2011 to specifically deal with "back and neck after MVA". The massage therapy covered the first year post-MVA, as well as a one-year period from October 2011 to October 2012.

One factor noted by [MPIC's HCS physiatrist] in support of her conclusion that no causal relationship existed between the MVAs and the Appellant's lumbar disc

desiccation, was the gap of 4+ years between the June 3, 2013 PT assessment and the MVA. Counsel submitted that this gap in documentation should not be interpreted as an absence of low back pain symptoms. He argued that despite having done so on other files, [MPIC's HCS physiatrist] did not enquire about additional chart notes that could have revealed to her the Appellant's prescriptions for massage therapy and his ongoing difficulty with low back pain. This is a failure on the part of MPIC.

In summary, Appellant's Representative submitted that the evidence established that the Appellant's L4-5 disc damage was not likely age-related, particularly based upon the imaging that only shows damage at that level. Further, the evidence established that the Appellant suffered no sport or work related injury. He submitted that this left two possible scenarios to account for the L4-L5 disc damage:

- The L4-L5 disc was significantly compromised prior to the MVA collisions, which
 did not herniate at the time of the high impact MVA collisions, but rather
 herniated spontaneously at some later point from unknown origin (possibly from
 painting the shed); or,
- 2. The L4-L5 disc was healthy prior to the MVA collisions, the disc was significantly compromised in the collisions, gradually deteriorated over time and became highly symptomatic due to the low force non-traumatic shed painting incident, with further deterioration ultimately requiring surgery.

Appellant's Representative reiterated [MPIC's HCS physiatrist]'s testimony that she could not state how the Appellant developed his low back disc problem only that it

probably was not caused by the MVA collisions. He questioned how, if the cause is unknown, [MPIC's HCS physiatrist] could rule out the MVA collisions as being the cause. He submitted that [MPIC's HCS physiatrist] conceded that some of her testimony and opinion was based upon speculation or factual assumptions that were incorrect.

Appellant's Representative referred to the Commission decision in AC-17-068 in which the panel preferred and gave greater weight to the testimony of the neurosurgeon who examined and treated that Appellant over the forensic review of MPIC's health care consultant who simply reviewed the Appellant's records.

Appellant's Representative concluded with [Appellant's orthopaedic surgeon]'s opinion stated in his November 1, 2016 report, in which [Appellant's orthopaedic surgeon] viewed significant narrowing of the L4-5 disc space. [Appellant's orthopaedic surgeon] stated: "This patient therefore has chronic problems with severe disc degeneration disease at L4-5. This is most likely the result of the motor vehicle accident."

Counsel submitted that but for the MVA collisions the Appellant's L4-5 disc would not have herniated/desiccated. Alternatively, the MVA collisions materially contributed to the disc herniation/desiccation and in either case, causation has been established.

MPIC closing submissions:

MPIC Counsel submitted that the fundamental issue for the Panel is whether the Appellants MVA collisions caused his lower back pain. In considering the test for causation, Counsel reviewed prior Commission and Supreme Court of Canada cases to

clarify the interaction between the "but for" and "material contribution" tests for causation.

Counsel submitted that the Panel must first determine whether, on a balance of probabilities, the Appellant's injuries would have occurred "but for" the MVA collisions. Next, if the Panel finds that there are multiple causes for the Appellant's lower back condition, it must determine if the Appellant, through no fault of his own, is unable to establish which cause is the actual cause. Only then may the Panel next consider whether the MVA collisions "materially contributed" to his lower back condition and thereby establish causation. Counsel submitted that a "material contribution" would only be considered in exceptional circumstances.

Counsel submitted that this case is not one in which the Panel need consider the "material contribution" test because first, the Appellant has not established that his lower back condition would not have developed but for the MVA collisions, and secondly, there is no evidence to suggest a multiple cause scenario in which the material contribution test need be applied.

MPIC Counsel reviewed the emergency room medical evidence which referred to the MVA but does not document complaints of lower back pain. Although acknowledging that there were a series of collisions, MPIC Counsel doubted the suggestion that the back seat of the Appellant's vehicle had been broken, or that the emergency room physicians had been less than attentive when examining and documenting the Appellant's injuries.

Counsel submitted that, notwithstanding the file note in which the Appellant's wife speaks of the Appellant's sore neck and back, MPIC's expert consultant [MPIC's HCS physiatrist] testified that it was not possible to conclude that this complaint related to the Appellant's lower back. Nor does soreness alone equate to injury. It is important to look for consistent reporting of low back pain symptoms. That type of consistent reporting is not demonstrated in the medical records. MPIC Counsel questioned why, if the Appellant reported low back pain as he testified, this did not appear in the emergency room records.

When considering the chiropractic treatment the Appellant received, Counsel stressed [MPIC's HCS physiatrist]'s testimony that the Appellant's "symptoms" involved neck pain, headaches, left shoulder and wrist pain and dizziness, but no mention of lower back symptoms. Counsel referred to the testimony of both [MPIC's HCS physiatrist] and [Appellant's orthopaedic surgeon] in which they stated that VSCs are not medical diagnoses.

[MPIC's HCS physiatrist] testified that alignment issues are not indicative of injury and the Appellant's neurological examination did not identify issues with the Appellant's lower back. MPIC Counsel also pointed out the evidence about [Appellant's chiropractor] no longer having her file records and therefore she created her report from her recollection. This raised questions about the validity of [Appellant's chiropractor]'s 2018 report. He submitted that the Commission should prefer the evidence from [Appellant's chiropractor]'s 2009 reports and give little or no weight to [Appellant's chiropractor]'s 2018 report.

MPIC Counsel submitted that the evidence showed that after October 2009 the Appellant was no longer receiving treatment for any symptoms, and there is no evidence that the Appellant sought the recommended physiotherapy treatment until two years later in June 2011. He pointed out that in 2011 the physiotherapist diagnosed residual effects of whiplash with symptoms related to the Appellant's cervical and thoracic spine.

MPIC Counsel submitted that there is no evidence that the Appellant followed through with his physiotherapy. In August 2011 the Appellant advised his case manager that he was still having neck pain and headaches and requested physiotherapy funding. This request is to treat neck pain and not lower back pain, which is therefore evidence that the Appellant was not suffering with a lower back condition.

Counsel cross-referenced the Appellant's medical chart notes about his sudden low back pain and ER visit on or about September 25, 2011, with the Case Manager file note of September 30, 2011. Counsel submitted that the explanation for why the Appellant did not mention the back pain and ER visit to his case manager (and in the subsequent Internal Office Review) is because the Appellant's low back pain was a new and sudden event, which the Appellant did not link to the MVA collisions.

MPIC Counsel acknowledged the dispute between the experts as to the significance of the October 3, 2011 L4-L5 disc narrowing. MPIC Counsel also acknowledged the differing interpretation of the March 18, 2013 CT scan of the Appellant's L4-L5 disc. In particular, [Appellant's orthopaedic surgeon] disagreed that this narrowing was an agerelated degenerative change based upon the Appellant's relatively young age and the

fact that the remaining discs were not affected. Counsel emphasized [MPIC's HCS physiatrist]'s opinion based upon her research that shows age-related changes are found in the Appellant's age group, and the L4-L5 spinal area is the area most affected by everyday stress.

Counsel submitted that MPIC first received notice of the Appellant's lower back condition in or about March 2017 when the Appellant advised of his pending spinal surgery. The Appellant enquired about PIPP benefits, which MPIC denied (thereby resulting in this appeal). In support of his review before the Internal Review Officer ("IRO"), the Appellant submitted a number of medical documents, which raised suspicion on the part of Counsel due to apparent omissions of key medical records pertaining to the October 2011 physician visit. Whatever the explanation, Counsel stressed the 'suddenness' of the Appellant's back pain in October 2011, which perhaps explained the late notice to MPIC.

Counsel noted other apparent inconsistencies in that the Appellant told the IRO that he used to play in a hockey league that allowed contact (although not since the MVAs) yet [physician]'s March 21, 2017 report stated that the Appellant "still carries a high degree of physical fitness." Further, Counsel submitted that the Appellant 'downplayed' the physical aspects of his employment, despite comments in both [physician]'s and [Appellant's orthopaedic surgeon]'s reports setting out those physical requirements. Counsel submitted that, in fact, the Appellant continued to engage in activities that could explain his L4-L5 condition seen on the 2013 and 2016 imaging.

Dealing with [Appellant's orthopaedic surgeon]'s written opinions, MPIC Counsel underscored certain "erroneous" underlying facts which, impliedly, undermined the reliability of those opinions. First, Counsel argued that there was no evidence to support [Appellant's orthopaedic surgeon]'s assumption that the MVA collisions were very significant in nature and significant enough to result in a real low back injury. Counsel submitted that [Appellant's orthopaedic surgeon] ignored, or was unaware of, the fact that the Appellant walked away from the collision and that his complaints "in the acute period" did not involve his lower back. This was in contrast to [MPIC's HCS physiatrist]'s opinion that it was unrealistic to conclude that the Appellant would not complain of a disc injury if one had occurred in this acute period.

The second erroneous underlying fact argued by Counsel was that [Appellant's orthopaedic surgeon] assumed the Appellant had received consistent treatment for lower back problems since the collisions. In fact, the Appellant's complaints were for neck symptoms, which is why [MPIC's HCS physiatrist] did not find the important temporal relationship between the MVAs and the lower back pain.

Counsel submitted that in order for the Appellant to meet the "but for" test of causation, the Panel must accept that the Appellant's low back injury did not become significant enough to report until almost two years post-MVA. Further, the Panel would need to disregard the "sudden" nature of his low back pain in September 2011, and disregard the fact that the Appellant waited until March 2013 to ask MPIC for treatment in relation to his low back pain.

In order for the Appellant to show, on a balance of probabilities, that he would not have low back pain that required surgery "but for" the MVA collisions, Counsel submitted that the Panel must be satisfied that the Appellant likely sustained a lumbar spine disc injury during the MVAs but the pain was not significant enough to report until the significant development of pain in 2011, thereby leading to surgery approximately six years later.

MPIC Counsel argued that the Commission decision in AC-17-068 (relied upon by Appellant Counsel) was distinguishable on its facts. Therefore, Counsel submitted that the Appellant has not met his burden of proof and requested that the appeal be dismissed and the IRD affirmed.

Legislation:

The applicable sections of the MPIC Act and Regulations are as follows:

70(1) In this Part,

"accident" means any event in which bodily injury is caused by an automobile;

"bodily injury caused by an automobile" means any bodily injury caused by an automobile, by the use of an automobile, or by a load, including bodily injury caused by a trailer used with an automobile, but not including bodily injury caused

- (a) by the autonomous act of an animal that is part of the load, or
- (b) because of an action performed by the victim in connection with the maintenance, repair, alteration or improvement of an automobile

DISCUSSION

Credibility and reliability

The panel considered several factors in assessing the credibility and reliability of each witness. These factors involved each witnesses' demeanor, their recollection of events, the consistency with which each witness recounted events over time, and the consistency of testimony with any corroborating documentary evidence.

The Appellant

The core issue in this case is whether the MVAs caused the Appellant's lower back condition. The Panel observed the Appellant to be somewhat defensive and argumentative when responding to certain cross-examination questions that questioned his clarity or consistency in reporting back complaints to medical practitioners at various times after his MVAs. MPIC Counsel questioned the apparent selectiveness of medical chart records provided by the Appellant for his appeal, when compared to the medical chart obtained by MPIC and included in the Indexed File.

The Panel has not ignored the apparent inconsistencies between the Appellant's strong assertions in his testimony that he always suffered low back pain and the absence of those reports in the medical charts notes until September 2011. The Appellant's testimony may have been embellished on that topic. However, the Panel considered the Appellant's explanation that his more severe neck pain overshadowed his lower back pain, and more importantly, considered [Appellant's orthopaedic surgeon]'s testimony that such an injury can in fact be silent initially, and then develop over time. The Panel finds that these are reasonable explanations for the inconsistencies.

The Panel finds that, for the most part, the Appellant spoke in a clear manner in response to questions. He admitted when he could not recall events from many years

ago, which the Panel finds understandable given the passage of time. The Panel did not find anything particularly selective about the chart records provided by the Appellant and found his explanation (that he simply requested his medical records and then provided what he was given) to be logical and sincere.

The Panel finds the Appellant's overall testimony to be clear, cogent and consistent.

Despite some embellishment, we find him credible and his testimony reliable.

[Appellant's orthopaedic surgeon]

MPIC Counsel thoroughly cross-examined [Appellant's orthopaedic surgeon] who responded factually and clearly to questions. His testimony was within his expertise and consistent with the conclusions in his medical opinions. He did not embellish or speculate on facts. He fairly admitted when certain underlying facts were incorrect, and responded cogently as to whether any of the missed or incorrect underlying facts changed his opinion. The Panel finds [Appellant's orthopaedic surgeon]'s testimony to be credible, reliable and impartial.

[MPIC's HCS physiatrist]

The Panel noted that [MPIC's HCS physiatrist] tended to provide speculative testimony when interpreting chart notes and medical records. She speculated as to the Appellant's motives or intentions in relation to certain records. The Panel eventually cautioned [MPIC's HCS physiatrist] about her manner of testimony.

During cross-examination, [MPIC's HCS physiatrist] could not recall parts of her testimony from the previous day that pertained to her medical opinions. [MPIC's HCS

physiatrist] showed fairness in admitting when certain of her underlying assumptions in support of her conclusions, were incorrect. Nonetheless, the Panel finds that [MPIC's HCS physiatrist] tended to embellish, speculate, and unfairly criticize, which led the Panel to question the impartiality and reliability of her opinion.

Analysis of Substantive Issue

The fundamental question is whether the MVA collisions caused the Appellant's lower back disc condition, which ultimately led to the back surgery by [Appellant's orthopaedic surgeon] on October 27, 2017.

The Panel will first address the submissions as to the correct application of the law of causation. The Panel agrees with both counsel that the ultimate test is the "but for" test. The Panel also agrees with MPIC Counsel's analysis that the "material contribution" consideration is relegated to those cases in which two or more causes are apparent, but an Appellant is unable, through no fault of their own, to establish which wrongdoer caused the injury. In that case, as long as the appellant can show that the injury would not have occurred "but for" the acts of either possible wrongdoer, then causation is established. That is not the scenario in this case and therefore, we are simply dealing with the "but for" test for causation.

The answer to the causation question comes down to the competing conclusions of the experts, and the underlying facts upon which those conclusions are based. [Appellant's orthopaedic surgeon] concluded that there was no time gap between the MVA collisions and the Appellant's consistent efforts to manage his L4-L5 disc injury.

[Appellant's orthopaedic surgeon] concluded that the disc changes were not age-related, but rather caused by the MVA collisions.

[MPIC's HCS physiatrist] concluded that the Appellant's initial presentation and diagnosis post-MVA was a whiplash injury, with no significant injury to the lumbar spine. There was no temporal relationship between MVA and a lumbar spine injury, and therefore no causation.

The Panel considered the expertise of [Appellant's orthopaedic surgeon], which is that of a specialist and lecturer on the topic of orthopaedic surgery, with a particular focus on spinal surgery. His past employment history includes lectures in anatomy for radiology and physiotherapy students. His practice history includes orthopaedic procedures for trauma, as well as degenerative and congenital spinal problems. [Appellant's orthopaedic surgeon]'s curriculum vitae includes a lengthy list of publications and presentations, which spanned more than 30 years, on the topics of various orthopaedic surgeries, including spinal surgery.

[Appellant's orthopaedic surgeon] acknowledged that he may not initially have reviewed or considered the emergency room records, which did not record complaints of low back symptoms by the Appellant. [Appellant's orthopaedic surgeon] was consistent in stating that his conclusion of causation was based primarily upon the medical history he obtained from the Appellant, and his review of the spinal imaging. [Appellant's orthopaedic surgeon] was not troubled by the fact that the Appellant may have previously played contact hockey, or that his employment required him to occasionally

lift heavy bags. In fact, it was important that the Appellant maintain a certain level of physical fitness and muscle strength to ward off pain symptoms.

[Appellant's orthopaedic surgeon] assessed the Appellant, a young, healthy, fit man who developed L4-L5 disc desiccation. What was striking for [him] was the fact that the discs adjacent to the L4-L5 level were "pristine". He emphasized this point in both direct and cross-examination. [Appellant's orthopaedic surgeon] explained that if this was an age-related degenerative process he would expect to see degeneration at other levels of the spine, and this was not the case. [MPIC's HCS physiatrist] agreed the Appellant's disc degeneration was not age-related.

[Appellant's orthopaedic surgeon] said that any high impact, rear-end collision can have dire consequences. He was not troubled by the fact that the Appellant presented with an "acute" presentation of low back pain some 2 ½ years post MVAs. [Appellant's orthopaedic surgeon] explained the slow process that can occur from trauma such as the MVAs as analogous to a slow leak in a tire or a balloon. The disc desiccates (dries) and loses its integrity over time, leading to an eventual, acutely symptomatic condition that can no longer be treated or alleviated with massage, medications, physio or chiropractic therapy.

[Appellant's orthopaedic surgeon] described the "cascade" of events "that happen on a microscopic level" with a disc injury. [Appellant's orthopaedic surgeon] was clear in stating that pain from a lower back injury need not be immediate: an injury can occur without symptomology. As such, symptoms vary and can take years to develop. This was the course of the Appellant's spine injury, which started with the MVAs.

[Appellant's orthopaedic surgeon] was not shaken in his opinion that there was a temporal relationship between the MVA collisions and the L4-L5 disc desiccation.

[MPIC's HCS physiatrist] opined that there was no temporal relationship between the MVAs and the Appellant's diagnosis of low back disc injury. Despite the chiropractic report of temporally-related VSCs involving the cervical, thoracic and lumbar spine, [MPIC's HCS physiatrist] focused on the lack of diagnosis of a lumbar back or spine injury.

[MPIC's HCS physiatrist] also relied heavily on her reading of the research which stated that the L4-L5 level of the spine is the most vulnerable area, and the first area that causes low back pain. This research indicated that individuals as young as the Appellant have been known to develop low back pain at this level.

[MPIC's HCS physiatrist] did not have a strong explanation, and in fact conceded, that it would be unusual to see age-related degenerative changes at only one level, particularly in someone as young as the Appellant. As already stated, she conceded that the Appellant did not have age-related disc degeneration. She simply offered that the Appellant experienced some other form of trauma that caused the disc desiccation.

[MPIC's HCS physiatrist] stated that she could not trace the 2011 acute low back pain to the MVAs based upon her conclusion that there was an absence of documented lumbar symptoms. However, this appears to disregard the documented chiropractic treatments by [Appellant's chiropractor] for the Appellant's cervical, thoracic and lumbar spine from January 2009 to October 2009, the Appellant's massage treatments from

January 2009 – January 2010 and October 2011 – October 2012, and his increasing use of pain medication. The Panel accepts the Appellant's testimony that, while he primarily and initially sought treatment for his neck, his treatments and medications also included his back.

The Panel preferred the conclusion of [Appellant's orthopaedic surgeon] over the conclusion of [MPIC's HCS physiatrist] for a number of reasons. First, [Appellant's orthopaedic surgeon] had the advantage of speaking with and examining the Appellant, in addition to reviewing the Appellant's medical chart and imaging.

Secondly, [Appellant's orthopaedic surgeon]'s review of the Appellant's medical records involved his specific expertise in reading the imaging of the Appellant's spine. While [MPIC's HCS physiatrist] certainly has expertise in the area of musculoskeletal and sport medicine, and has no doubt seen, treated and researched spinal injuries in her practice, she does not have the level of specialized expertise comparable to [Appellant's orthopaedic surgeon]. We find that [Appellant's orthopaedic surgeon]'s review of the Appellant's overall medical records was superior to [MPIC's HCS physiatrist]'s.

Thirdly, the Panel found [Appellant's orthopaedic surgeon]'s opinion to be objective and impartial. By comparison [MPIC's HCS physiatrist]'s testimony contained speculation. Also, her opinion was somewhat based upon the disproven assumption that the Appellant's low back complaints were inconsistent. Her testimony also contained implicit and explicit criticism of the Appellant, which undermined the impartiality and strength of her conclusions. The Panel also found Counsel's leading questions as to her conclusion to be problematic.

Findings

The Panel finds that the Appellant was involved in a series of motor vehicle collisions that all occurred on December 21, 2008. The Panel finds, on a balance of probabilities, that the second rear-end collision by the truck propelled the Appellant's vehicle causing it to hit the ditch with such force that the dash blew apart.

The Panel finds, on a balance of probabilities, that the Appellant's position at the time of the truck rear-end (i.e., unbelted and twisted sideways across the front seat) probably injured his L4-L5 disc, which was somewhat symptomatic at the time of the MVA, but masked by his more severe neck injury. His L4-L5 disc injury slowly deteriorated over time until the acute low back pain he experienced in September 2011.

The Panel finds that there is no evidence the Appellant had previously injured, or that he later re-injured his L4-L5 disc, either through prior hockey or sport activities, or as a result of work duties. The Panel finds no credible or reliable evidence of any injury significant enough to cause injury to the L4-L5 disc, other than the MVAs.

The Panel finds it unlikely that the Appellant had a pre-MVA asymptomatic disc injury that was unaffected by the MVAs. It is more likely that the MVAs caused the L4-L5 disc injury which began a cascade event on a microscopic level that led to the slow disc desiccation, the acute pain in 2011 and the ultimate disc surgery.

The Panel finds on a balance of probabilities that but for the December 21, 2008 MVA collisions the Appellant would not have suffered an L4-L5 disc injury that led to the disc desiccation and his surgery by [Appellant's orthopaedic surgeon] in October 2017.

Disposition:

The Panel allows the appeal and overturns the Internal Review Decision dated November 16, 2017.

Dated at Winnipeg this 16th day of May, 2022.

PAMELA REILLY	
LINDA NEWTON	
SANDRA OAKI EV	