



FSCO A10-000338

**BETWEEN:**

**M.M.**  
**(*minor*)**

**Applicant**

**and**

**GUARANTEE COMPANY OF NORTH AMERICA**

**Insurer**

**DECISION ON A  
PRELIMINARY ISSUE**

**Before:** Judith Killoran

**Heard:** Written submissions were received on May 4, June 8, and June 25, 2012.  
Joint Arbitration Brief filed on September 13, 2012.

**Appearances:** Juan F. Carranza for M.M.  
Gregory Van Berkel for Guarantee Company of North America

**Issues:**

The Applicant, M.M., was injured in a motor vehicle accident on August 5, 2001. She applied for and received statutory accident benefits from Guarantee Company of North America (“Guarantee”), payable under the *Schedule*.<sup>1</sup> The parties were unable to resolve their disputes through mediation, and M.M. applied for arbitration at the Financial Services Commission of Ontario under the *Insurance Act*, R.S.O. 1990, c.I.8, as amended.

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<sup>1</sup>*The Statutory Accident Benefits Schedule — Accidents on or after November 1, 1996*, Ontario Regulation 403/96, as amended.

The preliminary issue is:

1. Did M.M. sustain a catastrophic impairment as a result of the accident of August 5, 2001 based on the definition in subsection 2(1.1)(e)(i) (formerly subsection 2(1)(e)(i) of O. Reg. 403/96, as amended) namely a brain impairment that, in respect of an accident, results in a score of 9 or less on the Glasgow Coma Scale according to a test administered within a reasonable period of time after the accident by a person trained for that purpose?

**Result:**

1. M.M. sustained a catastrophic impairment as a result of the accident based on the definition in subsection 2(1.1)(e)(i) of the *Schedule*.

**EVIDENCE AND ANALYSIS:**

The parties filed the Agreed Statement of Facts, as follows:

1. M.M. was involved in a motor vehicle accident on August 5, 2001 and is an insured of Guarantee for the purpose of accident benefits. She was five years old at the time of the accident.
2. M.M. submitted a claim for accident benefits, and as of August 30, 2001, [she] had used \$81,031.59 in medical and rehabilitation benefits limits.
3. The accident took place a few minutes before 6:00 p.m. on August 5, 2001.
4. The preliminary issue to be determined in this matter is whether the applicant, M.M., sustained a catastrophic impairment as a result of the accident of August 5, 2001 based on the definition in s. 2(1.1)(e)(i) (formerly s. 2(e)(i)) of O. Reg. 403/96 as amended), namely a brain impairment that, in respect of an accident, results in a score of 9 or less on the Glasgow

Coma Scale according to a test administered within a reasonable period of time after the accident by a person trained for that purpose.

5. The parties agreed that the issue of whether M.M. meets the subsection 2(1.1)(e)(i) definition of catastrophic impairment is a legal question for the arbitrator to determine.
6. The parties agree that the following documents can be relied on for the truth of their contents:
  - a. Motor Vehicle Accident Report for accident number 5311260, dated August 5, 2001;
  - b. Field notes of:
    - i. P.C. Jeff Bassingthwaite;
    - ii. P.C. Susana Musso-Duarte;
    - iii. P.C. Francis Yung;
    - iv. P.C. Glen McBryde.
  - c. Toronto Fire Services' Emergency Incident Report for Incident No: 2001-FR-040723;
  - d. Ambulance Call Report for call number 169523, dated August 5, 2001; and
  - e. The records of the Hospital for Sick Children.
7. The GCS scores recorded in the above documents were administered by persons trained for that purpose and within a reasonable time after the accident.
8. The following reports may be relied upon by the parties for the findings and opinions of their authors. The parties agree that the weight to be assigned to those findings and opinions is a matter for the arbitrator to determine in relation to the preliminary issue to be determined:
  - a. Assessment reports of the North Toronto Designated Assessment Centre, dated March 7, 2003 and April 10, 2003 respectively;

- b. Assessment reports of the North Toronto Designated Assessment Centre, dated November 28, 2006;
- c. Assessment reports of Kaplan and Kaplan assessors, dated February 5, 2009 and January 24, 2012;
- d. Assessment reports of Dr. Maureen Dennis, dated September 7, 2011 and January 27, 2012 respectively;
- e. Assessment reports of Dr. Gale Kumchy, dated December 3, 2011 and January 8, 2012 respectively; and
- f. Psychiatry assessment report of Dr. J. Mathoo, dated September 19, 2011.

## **EVIDENCE**

A few minutes before 6 p.m. on August 5, 2001, five-year old M.M. was struck by a car and pushed through a store window by the impact. Police received a 911 call at 6:00 p.m. Police Constable Francis Yung noted the information from the caller that a “child is not breathing and is turning blue. Unknown person giving mouth to mouth.”<sup>2</sup>

A fire crew arrived at the scene of the accident between 18:04 and 18:05 hours.<sup>3</sup> M.M. was “semi-conscious, facial cyanosis, slow resps” when the fire crew found her. Facial cyanosis refers to bluish or purple discoloration of the skin due to lack of oxygen.

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<sup>2</sup>Joint Arbitration Brief, Tab 2, Field Notes

<sup>3</sup>Fire Department Records, Joint Arbitration Brief, Tab 3, Ambulance Call Report, Tab 4

Firefighters dressed M.M.'s wounds, bagged her for 30 seconds and administered oxygen. "Bagging" refers to use of a respirator.<sup>4</sup> Ambulance paramedics found M.M. "supine on pavement, obtunded, combative, disoriented, appears in severe distress."

After the firefighters had administered oxygen at 18:06 hours, ambulance paramedics took a GCS score and evaluated M.M. at 9/15. Her subscale scores were, as follows:

- i. Eye opening to voice (3);
- ii. Verbal response – incomprehensible sounds (2);
- iii. Motor response – withdraw to pain (4)<sup>5</sup>

M.M. was able to open her eyes in response to a voice; she could not move her limbs on request; and her verbal responses were incomprehensible sounds. She had multiple, serious and deep lacerations of her legs.

At 18:07 hours, ambulance paramedics administered oxygen at 12L/min. At 18:16 hours, ambulance paramedics took another GCS score, and evaluated M.M. at 14/15. She was now able to open her eyes spontaneously and make motions in response to the paramedics' requests but her verbal responses were still confused. The ambulance left at 18:17 hours. At 18:19 hours, an intravenous line was run. At 18:26 hours, paramedics again took a GCS score and evaluated M.M. at 15/15. M.M. was now oriented and able to respond appropriately to verbal communications.<sup>6</sup>

M.M. was transported to the Hospital for Sick Children. Her admitting diagnosis was the following:<sup>7</sup>

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<sup>4</sup> Ambulance Call Report, Joint Arbitration Brief, Tab 4

<sup>5</sup> Ambulance Call Report, Joint Arbitration Brief, Tab 4, page 2

<sup>6</sup> Ibid.

<sup>7</sup> Records of the Hospital for Sick Children, Applicant's Brief, Tab 5, Discharge Summary, pg. 1

1. Motor vehicle collision
2. Pelvic fracture (open book type)
3. Large retroperitoneal hematoma
4. Urethral injury
5. Small bowel perforation
6. Bilateral lower extremity lacerations
7. Left sciatic nerve laceration

M.M. continued to be hemodynamically unstable upon arrival at Sick Children's Hospital. She received multiple fluid boluses and transfusions of packed red blood cells.<sup>8</sup> She was intubated at 20:06 hours and taken into surgery to close a perforated bowel, stabilize her pelvic fracture, insert a catheter, and stitch up her lacerations. The operation took 6 hours and 15 minutes to complete and when she left the room she was "sedated and unresponsive ... intubated."<sup>9</sup> In total, M.M. was intubated for the first 40 days in hospital.<sup>10</sup>

A CT scan of M.M.'s head was done at 5:05 p.m. on August 6, 2001 in the Paediatric Critical Care Unit. Dr. Susan Blaser, the radiologist, found from the CT scan that there was "no evidence of an intracranial hemorrhage" but there was "mild edema of the right cerebral hemisphere" and "bilateral pleural effusions."<sup>11</sup>

On August 21, 2001, a further CT scan of M.M.'s head was conducted by Dr. Susan Blaser. Dr. Blaser noted that there was no evidence of acute intracranial hemorrhage or a large vessel infarction. However, when compared to the previous CT scan, she noted that there had been some development of mild excessive prominence in the ventricles and sulci, likely reflecting diffuse cerebral volume loss.<sup>12</sup>

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<sup>8</sup>Records of the Hospital for Sick Children, Applicant's Brief, Tab 5, Discharge Summary p. 1

<sup>9</sup>Records of the Hospital for Sick Children, Applicant's Brief, Tab 8

<sup>10</sup>Records of the Hospital for Sick Children, Applicant's Brief, Tab 5, Discharge Summary p. 3

<sup>11</sup>CT Complex Head without contrast, Dr. Susan Blaser, August 6, 2001, Records of the Hospital for Sick Children, Applicant's Brief, Tab 6

<sup>12</sup>Diagnostic Imaging Consultation Report of Dr. Susan Blaser dated August 21, 2001, Applicant's Brief, Tab 7

M.M. was discharged from the Hospital for Sick Children on November 4, 2001. She was admitted to Holland Bloorview Kid's Hospital Children's Centre on November 7, 2001 where she was an inpatient until January 11, 2002. She continued to be an outpatient at Bloorview until June 29, 2005. During her time at Bloorview, M.M. received intensive physiotherapy as well as occupational therapy.<sup>13</sup>

As of August 30, 2010, M.M. had used \$81,031.59 of her \$100,000 medical and rehabilitation benefit limits. These benefits have primarily consisted of educational, psychological and occupational therapy support to overcome M.M.'s neurocognitive deficits and enable her to succeed in her schooling. Guarantee disagrees with the factual accuracy of M.M.'s submissions that benefits "primarily" consisted of "support to overcome M.M.'s neurocognitive deficits." Rather, Guarantee submits that the benefits were paid in respect of a variety of reasonable and necessary medical and rehabilitation treatments. However, Guarantee's experts and Dr. G. Kumchy<sup>14</sup> agree that M.M. will continue to require tutorial, psychovocational support and counselling into the future.

## **ANALYSIS:**

Section 2 (1.1)(e)(i) of the *Schedule* states the following:

For the purposes of this Regulation, a catastrophic impairment caused by an accident that occurs before October 1, 2003 is, brain impairment that, in respect of an accident, results in, a score of 9 or less on the Glasgow Coma Scale ... according to a test administered within a reasonable period of time after the accident by a person trained for that purpose.

The definition found in section 2 (1.1)(e)(i) of the *Schedule* is based on four criteria. The criteria are as follows:

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<sup>13</sup>Reports of Kaplan and Kaplan assessors, referencing Bloorview MacMillan, Discharge Summary, Joint Arbitration Brief, Tab 8, pp. 9, 13 and 25

<sup>14</sup>Addendum to Child File Review and Interviews Report dated December 3, 2011, Joint Arbitration Brief, Tab 12

- i. The applicant must have sustained a brain impairment as a result of the accident;
- ii. The brain impairment must result in a GCS score of 9 or less;
- iii. The GCS score must have been administered within a reasonable period of time after the accident; and
- iv. The GCS test was administered by someone trained for that purpose.

It is agreed by the parties that the GCS scores recorded by the paramedics on the date of the accident were obtained from a test administered within a reasonable period of time after the accident and that the paramedics who administered the test were persons trained for that purpose, which satisfies the criteria in (iii) and (iv) above. The primary issues remaining to be considered for the purpose of the preliminary issue hearing are as follows: i. Did M.M. sustain a brain impairment as a result of the accident?; and ii. Did the brain impairment result in the GCS score of 9 or less?

Guarantee submitted that scores obtained from tests administered after the applicant was intubated and sedated by medications should not be considered for the purposes of my determination with respect to impairment. None of the assessors who reviewed the issue in dispute considered those subsequent scores. Guarantee submitted, and I agree, that those scores were confounded by the intubation and sedation and therefore do not necessarily represent scores resulting from brain impairment.

“Impairment” is defined in s. 2(1) of the *Schedule* as “a loss or abnormality of a psychological, physiological or anatomical structure or function.” M.M. submitted that she sustained a brain impairment at the time of the accident. She has been evaluated by a number of neurologists and neuropsychologists over the years and they agree that she sustained a brain injury in the accident.<sup>15</sup> M.M. submitted that the definition does not require any brain injury at all even though there is uncontradicted evidence that she sustained a brain injury. The requirement is the existence of a brain “impairment”. M.M. submits that impairment is a functional inquiry rather

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<sup>15</sup>See neuropsychological assessment of Dr. Venera Bruto and Dr. Ronald Kaplan, Joint Arbitration Brief, Tab 8, CAT report of Dr. Becker, Dr. Shandling, Hannah Hidalgo and Dr. Gates, March and April 2003, Joint Arbitration Brief, Tab 6, pp. 3,4,9, 13, 48, , Neuropsychology Report of Dr. M. Dennis dated Sept. 7, 2011, Joint Arbitration Brief, Tab 11, p. 18, Addendum to Child File Review and Interviews Report dated December 3, 2011 and Report of Dr. G. Kumchy dated January 8, 2012, Joint Arbitration Brief, Tab 12, pp. 3, 4

than a physical one. Consciousness is a function of the brain and the GCS is a measure of consciousness. Therefore, if the GCS provides a score of 9 or less, the brain impairment is by definition sufficient to meet the catastrophic designation.

It is Guarantee's opinion that while M.M. sustained a number of physical injuries as a result of the accident and while she may have sustained a mild brain impairment, M.M. must establish on a balance of probabilities that a brain impairment sustained as a result of the accident resulted in a GCS score of 9 or less taken within a reasonable time after the accident by a person trained for that purpose. Guarantee submitted that the general test for causation is the "but for" test which means that M.M. must prove, on a balance of probabilities, that the GCS of 9 obtained at 18:06 hours on August 5, 2001 would not have been obtained but for brain impairment caused by the motor vehicle accident.<sup>16</sup> As the "but for" test remains the primary test for causation, it is only if it is unworkable that it is permissible to apply a material contribution test.<sup>17</sup> According to Guarantee, although there was initially some question as to the relative contribution of hemodynamic causes and/or brain impairment to the GCS score, subsequent opinion evidence confirmed that the GCS score was caused by hemodynamic change.

While Guarantee concedes that the initial CT scans of M.M.'s head revealed some abnormal findings, with mild edema of the right cerebral hemisphere, there was no evidence of intracranial hemorrhage. The subsequent CT scan performed on August 21, 2001 revealed evidence of diffuse cerebral volume loss which may have been caused or contributed to by dehydration and/or treatment with steroids.<sup>18</sup> Guarantee notes that when M.M. was discharged from the Hospital for Sick Children, the listed diagnoses included her various physical injuries but notably, the discharge summary did not list a brain injury or impairment as one of the diagnoses

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<sup>16</sup>*Athey v. Leonati* [1996] 3 S.C.R. 458 at paragraph 14, Respondent's Book of Authorities at Tab 3 and *Resurfloer Corp. v. Henke*, [2007] 1 S.C.R. 333 at paragraph 21, Respondent's Book of Authorities at Tab 4

<sup>17</sup> See *Clements v. Clements*, 2012 SCC 32, June 29, 2012

<sup>18</sup> Diagnostic Imaging Consultation Report of Dr. Susan Blaser dated August 6, 2001, Applicant's Brief, Tab 6, and Diagnostic Imaging Consultation Report of Dr. Susan Blaser dated August 21, 2001, Applicant's Brief, Tab 7

at that time.<sup>19</sup> However, subsequent assessors have determined that M.M. likely sustained some degree of brain impairment as a result of the motor vehicle accident.<sup>20</sup>

According to Guarantee, M.M.'s assessors have not agreed about the extent of her brain impairment. Dr. Robert Gates completed a neuropsychological assessment of the applicant in March and April of 2003 at North Toronto Assessment Centre. Dr. Gates acknowledged that while M.M. exhibited some signs of impairment from a mental or behavioural disorder, "the present neuropsychological test results and behavioural analyses do not indicate the presence of any impairment attributable to brain dysfunction."<sup>21</sup> Dr. Gates reassessed M.M. on July 31, 2006 and concluded as follows: "[M.M.] continues to exhibit average abilities in most areas, with no evidence of traumatic brain injury noted."<sup>22</sup>

In March and April 2003, a team of assessors with North Toronto Assessment Centre reviewed the issue of catastrophic impairment. The assessment team included Dr. Harold Becker (a physician), Dr. Maureen Shandling (a neurologist), Dr. Robert Gates (a neuropsychologist) and an occupational therapist. In the executive summary, the assessment team concluded that M.M. may have had a brain impairment due to her injury that very transiently resulted in a GCS score of 9 or less and the score may have been in part due to hypotension. The condition resolved within 15 minutes of her injury. No ongoing brain impairment was in evidence at the time of the assessment.<sup>23</sup>

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<sup>19</sup>Discharge Summary, Hospital for Sick Children records, Applicant's Brief, Tab 5

<sup>20</sup>North Toronto Assessment Centre report dated May 14, 2003 (March 7 and April 10, 2003), Joint Arbitration Brief, Tab 6, page 4 and Addendum report of Dr. Gail Kumchy dated January 8, 2012, Joint Arbitration Brief, Tab 13

<sup>21</sup>North Toronto Assessment Centre report dated November 28, 2006, Joint Arbitration Brief, Tab 7, page 48

<sup>22</sup>North Toronto Assessment Centre report dated November 28, 2006, Joint Arbitration Brief, Tab 7, pages 31 and 32

<sup>23</sup>North Toronto Assessment Centre report dated May 14, 2003 (March 7 and April 10, 2003), Joint Arbitration Brief, Tab 6, page 4

A second catastrophic impairment assessment was conducted by North Toronto Assessment Centre in 2006. The assessment team consisted of Dr. Oshidari and Dr. Gates. Dr. Oshidari, a physiatrist, made the following comments: "...there is a good possibility that the serious injuries she sustained, together with hypotension and hypoxemia caused the one rating of the low Glasgow Coma Scale score."<sup>24</sup> According to Guarantee, the quick improvement in the GCS score following the administration of oxygen supported the conclusion that the 9/15 was caused by the hypotension and/or hypoxemia. The executive summary of the assessment team concluded the following: "...there were other factors contributing to the initial low reading of the GCS and it was not related only to traumatic brain impairment. Therefore, M.M. does not meet catastrophic impairment under this criterion."<sup>25</sup>

A third catastrophic impairment assessment was conducted on February 5, 2009 by a team which included the following: Dr. Garner, a psychologist, Dr. Goodwin, a neurologist, and Drs. Bruto and Kaplan, clinical neuropsychologists. According to Guarantee, only Dr. Goodwin, the neurologist, commented directly on the cause of the GCS score of 9 obtained by the paramedics after the accident. Her opinion was subsequently adopted by the assessment team for the purposes of the executive summary. Dr. Goodwin stated as follows:

She had obvious injury to the plexus and legs and was shown to ultimately have a retroperitoneal hematoma and small bowel perforation. Blood Pressure was 70 with a very high pulse rate. While she did have a head injury, it is likely that her score of 9 was secondary to hemodynamic change.

Therefore on the basis of this isolated score of 9, I would not deem this child catastrophically impaired ....<sup>26</sup>

Dr. Mathoo, a physiatrist, assessed M.M. on September 19, 2011 at the request of Guarantee and concluded, as follows:

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<sup>24</sup>North Toronto Assessment Centre report dated November 28, 2006, Joint Arbitration Brief, Tab 7, page 9

<sup>25</sup>North Toronto Assessment Centre report dated November 28, 2008, Joint Arbitration Brief, Tab 7, page 5

<sup>26</sup>Report of Dr. Goodwin dated February 5, 2009 , Joint Arbitration Brief, Tab 8, page 6

There is a single instance of a GCS score recorded as 9/15 at 18:05 on the ambulance call report. There is agreement by the neurological assessors who have evaluated this core that this single instance would seem to relate primarily to hemodynamic instability (i.e. cardiovascular impairment) and/or hypoxemia (i.e. respiratory and/or cardiovascular impairment) rather than brain impairment. I concur with this assessment of the medical facts concerning this issue ...

Dr. Gail Kumchy, a neuropsychologist who interviewed M.M. and reviewed the previous neuropsychological test results in late 2011 and early 2012 concluded that M.M. was somewhat less efficient from a neuropsychological perspective secondary to stress/anxiety and the impact of a brain injury.<sup>27</sup>

On January 24, 2012, Dr. Kaplan prepared a further report at the request of M.M.'s counsel. In it, he cited Dr. Goodwin's opinion that the GCS score of 9 was secondary to hemodynamic change and he suggested that there was also evidence that M.M.'s brain injury was "contributory to the lower GCS score."

M.M. also relies on an addendum report prepared by Dr. Dennis, a neuropsychologist, dated January 27, 2012 supporting M.M.'s position on the causal relationship between any brain impairment and the GCS score of 9 obtained by the paramedics following the accident. Dr. Dennis concluded that M.M. suffered a brain injury or impairment that caused the hemodynamic change identified in the available records immediately following the accident. She did not comment on the reports of other assessors who attributed the hemodynamic change to cardiovascular and/or respiratory issues, including blood loss due to M.M.'s physical injuries.

Guarantee submitted that the best evidence on the medical cause of the GCS score of 9 is that of Dr. Goodwin. Dr. Goodwin, a neurologist, reviewed the medical evidence and provided a conclusion after considering the various possible contributory factors to the GCS of 9. She concluded unequivocally that the GCS score of 9 was likely caused by hemodynamic change rather than a brain impairment and that M.M. was not catastrophically impaired as a result.

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<sup>27</sup>Addendum report of Dr. Gail Kumchy dated January 8, 2012, Joint Arbitration Brief, Tab 13, pages 3-6

Guarantee also submitted that Dr. Goodwin's opinion on medical causation ought to be preferred in the circumstances of this case. Dr. Oshidari and Dr. Mathoo both came to a similar conclusion.

In *Liu v. 1226071 Ontario Inc.*<sup>28</sup>, the Ontario Court of Appeal commented as follows:

Any notion of catastrophic injury, other than the specific meaning ascribed to that term by the legislation must be discarded when considering whether a claimant meets the statutory test. The statutory scheme creates a bright line rule which is relatively easy to apply. This enhances the ability of those looking to the definition to know what injuries will and will not be considered catastrophic.<sup>29</sup>

Guarantee distinguished the *Liu* case where the Court of Appeal considered the issue of catastrophic impairment based on a GCS score of 9 or less taken within a reasonable time after the accident by a person trained for that purpose in the context of a tort action. For the purpose of the appeal, there was no issue that the accident caused the plaintiff to sustain a brain impairment that resulted in at least one GCS score of 9 or less. The issue in *Liu* was the timing of the GCS score rather than the causal connection between the GCS scores and brain impairment sustained as a result of the accident. According to Guarantee, because of the narrow issue in the *Liu* appeal, the Court of Appeal was not required to rule on the issue of causation. Consequently, its discussion of the criteria required was premised on the agreed upon or undisputed evidence that the brain impairment in question result in the GCS score of 9 or less. Guarantee distinguishes the present case by insisting that the issue is one of medical and legal causation; that is, whether the brain impairment resulted in the GCS score of 9.

M.M. challenged Guarantee's argument that she does not meet the definition of catastrophic impairment because the GCS rating of 9 that the paramedics recorded shortly after the time of the accident, did not last beyond the initial reading, did not result in permanent brain injury, and was caused by hemodynamic change which in turn was caused by cardiovascular and/or respiratory issues. M.M. relied on *Young and Liberty Mutual Insurance Company* to submit that

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<sup>28</sup>[2009] O.J. No. 3014

<sup>29</sup>[2009] O.J. No. 3014 (C.A.) at paragraph 30, Respondent's book of Authorities at Tab 5

the *Schedule* should be interpreted in accordance with its plain and ordinary meaning, without reading in the qualifying language that Guarantee's arguments require.<sup>30</sup>

M.M. submitted that the GCS is a measurement of consciousness and that a score of 9 on the GCS *prima facie* indicates that M.M. sustained a brain impairment. As Dr. Dennis explained: a low GCS score typically does not occur but for a brain injury.<sup>31</sup> According to M.M., the *Schedule* does not require that a brain impairment must be a result of a physical injury to the brain; it requires that it be "in respect of an accident." According to M.M., if there were any evidence that, for example, blood was pouring into her mouth and through her vocal chords and that impeded her ability to respond verbally then Guarantee's position would have merit as the causal chain would extend directly from the bleeding to the GCS reading. In M.M.'s case, the bleeding led to diminished oxygen to the brain, which led to an impairment of brain function, which, in turn, led to her inability to respond. Hemodynamic instability causes low GCS scores precisely by impairing brain function.

In the alternative, M.M. submitted that if one discounts the fact that the mechanism by which the hemodynamic instability led to the low GCS score was a brain impairment, there is still sufficient evidence to establish a causal connection between the brain impairment and the GCS score. In *Athey v. Leonati*<sup>32</sup>, the Supreme Court has ruled that if one condition (hemodynamic instability) alone could have been a sufficient cause, and the other condition (the brain injury) alone could have been a sufficient cause, then it is unclear which was the cause-in-fact of the outcome at issue (the GCS score). It must be determined, on a balance of probabilities, whether the brain injury materially contributed to the injury. The Supreme Court defined material contribution in this context as "falling outside the *de minimus* range."

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<sup>30</sup>*Young and Liberty Mutual Insurance Company*, (FSCO P03-00043 June 20, 2005), Appeal, at paras. 30-31, Applicant's Book of Authorities, Tab 8

<sup>31</sup>Addendum Report of Dr. M. Dennis dated January 27, 2012, Joint Arbitration Brief, Tab 14

<sup>32</sup>[1996] S.C.J. 102, paragraphs 41(3), 15, Applicant's Book of Authorities, Tab 11

Although many of the experts have noted that hemodynamic change was a sufficient cause of M.M.'s GCS score, they do not explain the mechanism by which that happened. Dr. Dennis stated that "regardless of her hemodynamic state, M.M.'s is the kind of significant brain damage that is associated with compromised consciousness as measured by a lowered GCS." That is, the brain injury itself was a sufficient cause of her GCS score. Dr. Kaplan also noted, "there is evidence that brain injury was contributory to the lower GCS score."<sup>33</sup> On this evidence, M.M.'s brain injury provided, at minimum, a material contribution to her GCS score of 9, and therefore legal causation is met. M.M. submitted that a catastrophic determination can be made in her favour, even while accepting Dr. Goodwin's opinion that the GCS score was secondary to hemodynamic change, given the manner by which hemodynamic change results in impaired consciousness as measured by the GCS score.

After the first DAC assessment of March-April 2003, Dr. Shandling, neurologist, concluded that while M.M. did have a GCS of 9, this was "transient." She noted that as a result of her multiple surgical procedures, M.M. remained, "intubated, sedated and ventilated for a period of 40 days." She also noted that the brain scan "showed a small area of hemorrhage, which resolved. There was some degree of cerebral volume loss reported on a single subsequent scan." In conclusion, despite the presence of brain injury and a GCS of 9, Dr. Shandling interpreted the *Schedule* such that she felt that M.M. did not "meet threshold criteria for catastrophic impairment ... She had a brain impairment due to her injury that very transiently resulted in a score of 9 or less on the Glasgow Coma Scale."<sup>34</sup>

I find that in M.M.'s case, it appears that her GCS score of 9 improved because of medical assistance and oxygen provided by the paramedics. A time requirement is not established for the duration of the GCS score of 9. Transient GCS scores are not excluded but only a single GCS score of 9 or less is required. Transience cannot be read into the requirement and used to deny the catastrophic designation.

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<sup>33</sup>Addendum report of Dr. M. Dennis dated January 27, 2012, Joint Arbitration Brief, Tab 14 and Medical Legal Opinion on Catastrophic Impairment: Neuropsychological Assessment by Dr. Venera Bruto and Dr. Ronald Kaplan dated February 5, 2009, Joint Arbitration Brief, Tab 8, pages 19-21

<sup>34</sup>North Toronto Catastrophic Impairment DAC Report dated April 2003, Joint Arbitration Brief, Tab 6, pg. 13

In his report of July 31, 2006, Dr. Oshidari, physiatrist, concluded M.M. did not meet the catastrophic impairment definition as he appeared to believe that a brain impairment must be the only cause of the GCS score of 9, with no other contributing factors. This importation of the word “only” to the definition leads to an incorrect conclusion in light of the statutory intention and the plain reading of the legislation.

Dr. Kaplan stated that while we are unable to conclude that the reduction in GCS is solely a result of brain injury, there is evidence that brain injury was contributory to the lower GCS score. Hemodynamic change refers to the loss of blood flow, or low blood pressure, as a result of M.M.’s blood loss due to the multiple lacerations and internal bleeding she suffered from the broken glass from the window she was pushed through. As was evident from her blue face, M.M.’s system was not delivering enough oxygen to her head. Lack of oxygen impairs the brain’s ability to process and respond to information, producing abnormal function that results in impaired consciousness that is measured by a lower GCS score.

Dr. Kumchy did not address the question of whether M.M.’s GCS score resulted from a brain impairment. She commented that “the relevant case law and rulings will determine which definitions of impairment apply with respect to GCS from a medical perspective.” M.M. submits that a low GCS score is *prima facie* an indication of serious trauma and no additional provisos such as “transiently”, “secondary” or “predominately” are required to meet the definition of catastrophic impairment under the *Schedule*.

## CONCLUSION

One of the main objectives of insurance law is consumer protection, particularly in the areas of automobile and home insurance.<sup>35</sup> Consequently, the *Schedule* should receive a large and liberal construction and interpretation as will best ensure the attainment of the object of the Act. If a provision is ambiguous, that ambiguity ought to be resolved in a liberal manner having regard to

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<sup>35</sup>*Smith and Co-operators General Insurance Company* [2002] 2 S.C.R. 129, Applicant’s Brief of Authorities, Tab 2

the ultimate purpose of the legislation. In the interpretation of insurance coverage, coverage provisions should be construed broadly and exclusion clauses narrowly.<sup>36</sup>

The *Schedule* intended the definition of “catastrophic impairment” to be inclusive rather than restrictive. The definition of “impairment” as “a loss or abnormality of a psychological, physiological or anatomical structure or function” is extremely broad.<sup>37</sup>

A low GCS score is one of the risk identifiers that the Legislature chose to protect with greater policy limits under the *Schedule*. The definition of “catastrophic impairment” requires only one GCS score and does not qualify that requirement by any length of time. However, the catastrophic designation of itself does not entitle the insured to any benefits. Benefits are only available for medical, rehabilitation, and care expenses that are reasonable and necessary.<sup>38</sup>

The GCS score is a measure of consciousness; that is, a measure of the extent to which the brain is able to function normally. A low GCS score is almost always indicative of a brain impairment, except in those rare situations where there is a non-neurological factor which affects responses on any of the scales; that is, a tongue laceration that prevents a cognitively normal person from speaking clearly or an allergic reaction that swells the eyes shut and prevents a cognitively normal person from opening them.

The Court of Appeal held in *Liu* that if the medical evidence proves the insured sustained a brain impairment and had at least one GCS score of 9 or less, taken within a reasonable time post-accident, she meets the statutory definition of catastrophic impairment. The director’s delegate in *Young* cautioned against importing qualifying language into the statutory test. He noted that by using the terms “direct and exclusive” with respect to the causal connection between the brain

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<sup>36</sup>*Canadian National Railway v. Royal and Sun Alliance Insurance Co. of Canada* [2008] S.C.J. No. 67, Applicant’s Brief of Authorities, Tab 4

<sup>37</sup>*Kusnierz v. Economical Mutual Insurance Company* [2011] O.J. No. 5908, citing *Desbiens v. Mordini* [2004] O.J. No. 4735, Applicant’s Brief of Authorities, Tabs 5 and 6

<sup>38</sup>Ss 14(2), 15(2) and 19(2)

impairment and the GCS score, the assessors were taking an improper approach. He pointed out that the definition does not refer to a “serious traumatic impairment of a brain function” but simply to a “brain impairment” resulting in a GCS score of 9 or less. Presumably, such low scores already reflect a serious trauma, so additional provisos serve as additional barriers beyond those set by the definition.<sup>39</sup>

Guarantee relied on expert opinions that there was no “ongoing” brain impairment, that the GCS score of 9 was “isolated” and that the GCS scored related “primarily” and “predominantly” to hemodynamic instability and/or hypoxemia. Guarantee also relied on the insertion of qualifying language into the relevant provision of the *Schedule* such as “ongoing”, “durable”, or “significant” before “brain impairment” or “solely” before “results in”. This is not in keeping with the rulings in both *Liu* and *Young*.

Many of M.M.’s assessors imported qualifying language into the *Schedule*, and based on that qualifying language, opined that she did not meet the subsection 2(1.1)(e)(i) criteria. Kaplan and Associates diagnosed a brain injury and agreed there was a GCS score of 9. They also were of the opinion that the brain injury contributed to the lower GCS. However, they discounted M.M.’s GCS score because they did not consider it to be directly and exclusively caused by the brain injury. They concluded that the brain impairment, the disrupted consciousness, was primarily caused by hemodynamic instability due to blood loss and not exclusively by M.M.’s brain injury.

Although hemodynamic instability causes low GCS scores by impairing brain function, any brain impairment caused by the accident and resulting in a GCS score of 9 meets the definition. The brain impairment does not have to be caused by a brain injury although Dr. Kaplan agrees that M.M. did suffer a brain injury and that the brain injury did contribute to the GCS score. As with Dr. Kaplan, the DAC assessors agreed there was evidence of a brain injury in the form of bleeding in the brain. They also stated that “the GCS may have reflected a measurement of brain impairment rather than a function of hypoxemia alone or a combination of both .... “

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<sup>39</sup>See *Young* supra

The 2003 DAC team “concluded that [M.M.] had brain impairment due to her injury that very transiently resulted in a score of 9 or less on the Glasgow Coma Scale.” However, “there was no evidence ... that she sustained a significant brain impairment, due to injury, meeting threshold criteria for catastrophic impairment.<sup>40</sup> The assessors do not indicate what they believe this “threshold criteria” to be, or where it comes from. They also do not explain where “significant” comes from. In my view, the importing of qualifying language leads to an improper interpretation of the *Schedule*.<sup>41</sup> I find that Guarantee relies solely on an interpretive approach that inserts extraneous considerations into the text of the *Schedule* and its application of the facts. Guarantee has failed to provide any evidence or legal basis for eschewing the plain and ordinary meaning of the *Schedule*.

Provided that M.M. can prove that the accident caused her a brain impairment that resulted in at least one GCS score of 9 or less, taken within a reasonable time post accident, she should be deemed to be catastrophically impaired. That the subsequent GCS scores are 10 or greater is irrelevant to the statutory analysis. The focus is on the injured person having sustained a period of unconsciousness that is causally related to the accident.<sup>42</sup>

Dr. Dennis explained that “mechanisms, including those that involve hemodynamic change, may compromise the brain to converge on a particular GCS score.” She confirmed that “hemodynamic stability is intimately related to good brain function.”<sup>43</sup> I find, on a balance of probabilities, that hemodynamic change deprived M.M.’s brain (and head) of oxygen so that it could not function sufficiently to process language and/or control the muscles involved in speaking. The result was that M.M.’s verbal responses were incomprehensible and contributed to her low GCS score.

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<sup>40</sup>Joint Arbitration Brief, Tab 6, page 4 of 54

<sup>41</sup>see *Young*, supra

<sup>42</sup>(*Liu v. 1226071 Ontario Inc* [2009] O.J. No. 3014 (Ont.C.A.) para. 20, Applicant’s Brief of Authorities, Tab 7

<sup>43</sup>Dr. Maureen Dennis’s Report, Joint Arbitration Brief, Tab 11

A causal connection between events is established in law if either the “but for” or material contribution test is met. That is, if the impaired consciousness measured by the GCS score would not have occurred but for the brain impairment, then causation is established. If that cannot be determined, then if the brain impairment materially contributed to the impaired consciousness, causation is also established.<sup>44</sup>

A GCS score is not intended to project into the future the medical status of an applicant but is rather a tool employed among medical practitioners to communicate the level of consciousness of a person who has sustained a head trauma.<sup>45</sup> That is, a predictive analysis is not called for in the subsection 2(1.1)(e)(i) definition of “catastrophic impairment”, which begins (and ends) with a brain impairment that results in certain GCS scores.<sup>46</sup> Rather, the regulation states that only a single GCS score of 9, which the paramedics recorded shortly after the accident, is required. The subsection 2(1.1)(e)(i) criteria is not tied to outcome nor does it require a brain injury. Guarantee seems to imply that the test for catastrophic impairment requires permanent brain injury. I find that the GCS is a clinical test requiring no further legal filter in order to validate its results.<sup>47</sup>

In the case before me, where an accident caused massive blood loss which deprived the brain of oxygen to such a degree that its main functions (consciousness and motor control) were impaired and a GCS score of 9 was recorded, the relevant “but for” causal connection of the brain impairment to the GCS score has been established. I find, on a balance of probabilities, that M.M. suffered a brain impairment as a result of the accident; specifically, her brain suffered a loss of function for several minutes due to hypoxia (lack of oxygen), a hemorrhage, pressure on

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<sup>44</sup>*Athey v. Leonati* [1996] S.C.J. 102 (S.C.C.) para 41, Tab 11 and *Monks v. ING Insurance Co. of Canada* [2008] O.J. 1371, paras. 85-97, Applicant’s Brief of Authorities, Tab 12, *Clements v. Clements*, 2012 SCC 32, June 29, 2012

<sup>45</sup>See *Young supra*, at paragraph 28, Tab 8

<sup>46</sup>*Liu v. 1226071 Ontario Inc.*, [2009] O.J. No. 3014 (Ont.C.A.) para 20, Tab 7

<sup>47</sup>*Tournay v. Dominion of Canada General Insurance Co.* (FSCO A05-000507, July 20, 2006), paras. 39, 46-49, Tab 9

the right hemisphere and/or a combination of all three. This resulted in a GCS score of 9 which was recorded by attending paramedics.

Consequently, I find that M.M. sustained a catastrophic impairment as a result of the accident based on the definition in subsection 2(1.1)(e)(i) of the *Schedule*.

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Judith Killoran  
Arbitrator

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September 19, 2012  
Date

Financial Services  
Commission  
of Ontario

Commission des  
services financiers  
de l'Ontario



FSCO A10-000338

**BETWEEN:**

**M.M.  
(*minor*)**

**Applicant**

**and**

**GUARANTEE COMPANY OF NORTH AMERICA**

**Insurer**

## **ARBITRATION ORDER**

Under section 282 of the *Insurance Act*, R.S.O. 1990, c.I.8, as amended, it is ordered that:

1. M.M. sustained a catastrophic impairment as a result of the accident based on the definition in subsection 2(1.1)(e)(i) of the *Schedule*.

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Judith Killoran  
Arbitrator

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September 19, 2012  
Date