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Manitoba

THE PROVINCIAL COURT OF MANITOBA

IN THE MATTER OF: ***The Fatality Inquiries Act*** **C.C.S.M. c. F52**

AND IN THE MATTER OF: An Inquest into the death of:

Andrew Szabo

Report on Inquest and Recommendations of
Judge Mary Kate Harvie
Issued this 17th day of June 2011

APPEARANCES:

Ms Mandy Ambrose, Counsel to the Inquest
Mr. Gavin Wood, Counsel for Criti Care EMS, Inc.
Mr. Robert Sokalski, Counsel for Winnipeg Football Club and
Canadian Football League
Mr. William Olson, Q.C., and Ms. Catherine Tolton,
Counsel for Winnipeg Regional Health Authority,
The Grace General Hospital and the Health Sciences Centre
Mr. Michael Jack, Counsel for Winnipeg Fire Paramedic Service
and The City of Winnipeg
Mr. Thor Hansell and Mr. Tyler Kochanski, Counsel for
Dr. T. Bergmann, Dr. E. Smith and Dr. G. Pierce
Mr. Robert Tapper, Q.C., Counsel for Mrs. Szabo

Ms. Betty Owen, Inquest Co-ordinator

Manitoba

THE FATALITY INQUIRIES ACT, C.C.S.M. c. F52

REPORT BY PROVINCIAL JUDGE ON AN INQUEST INTO THE DEATH OF:

ANDREW SZABO

Dated at the City of Winnipeg, in Manitoba, this 17th day of June, 2011.

"Original Signed by:"

Judge Mary Kate Harvie

Copies to: Chief Judge Ken Champagne, Provincial Court of Manitoba
The Honourable Andrew Swan, Minister of Justice
Dr. A. Thambirajah Balachandra, Chief Medical Examiner

A Brief Summary of Events Leading to the Death of Andrew Szabo

[1] On August 4, 2006 Andrew Szabo and his wife Barbara Szabo attended a Winnipeg Blue Bomber football game at the Canad Inns Stadium in Winnipeg, Manitoba. They were accompanied by Randy Gustafson, a friend who was visiting from out of town. Although earlier that day Mr. Szabo had consumed some alcohol, he was showing no signs of impairment. Mr. Szabo and Mr. Gustafson purchased and consumed some beer prior to the commencement of the game. Mr. Szabo and his wife then proceeded to their seats in section K, row 13, seats 1 and 2 in the stadium's north end zone. Mr. Gustafson also sat in the north end zone but in a seat at the opposite end of the same row as Mr. and Mrs. Szabo, as they were unable to purchase tickets together.

[2] At approximately 7:25 P.M. Mr. Szabo motioned to Mr. Gustafson that they should go down and meet at ground level of the stadium. As Mr. Szabo stood up he appeared to catch his foot under the bench seat in front of him. He began to fall forward but was caught by Mrs. Szabo and a man seated in row 12 and was able to right himself. Mr. Szabo then started down the stadium stairs. It appeared to eye witnesses that he gained speed as he proceeded down the stairs, losing his balance as his upper body accelerated faster than his lower body. Before reaching the horizontal walkway at the base of the seats, he appeared to catch one foot on the other, causing him to fall. The forward momentum propelled him across the platform, causing him to strike his head on the guard rail running in front of sections J and K. His body became limp and he fell through the railings onto the concrete surface below.

[3] Bystanders rushed to his side and observed that he was lying flat on his back, apparently unconscious. He was attended to almost immediately by paramedics from "Criti Care", a private paramedic company retained by the Winnipeg Football Club to provide services to patrons attending the game. A 911 call was immediately placed and Mr. Szabo was triaged by the Criti Care paramedics. Mr. Szabo's care was transferred to the care of the Winnipeg Fire Paramedic Service ("WFPS") at 7:45 P.M., who eventually decided that he was to be transported to the Grace General Hospital.

[4] Mr. Szabo arrived at the Grace General Hospital at 8:12 P.M. He was triaged and his injuries were assessed as a "CTAS No. 2". He was treated and remained in the Emergency Department for a number of hours. As he was being prepared for discharge, he was observed to be unwell. As his condition began to deteriorate, he was moved to the resuscitation room where he underwent extensive interventions.

[5] On August 5, 2006 at 3:06 a.m. Mr. Szabo was transferred by ambulance to the Emergency Department at the Health Sciences Centre ("HSC") where his care was assumed by their "gold team." Despite aggressive attempts

at resuscitation at the HSC, Mr. Szabo succumbed to his injuries and was pronounced dead at 6:22 a.m. on August 5, 2006.

[6] A medico-legal autopsy confirmed the cause of death was “multiple injuries due to fall from height”. The manner of death was deemed “accidental”.

The Mandate of the Inquest

[7] In Manitoba, Inquest proceedings are governed by both common law and by the statutory provision of *The Fatality Inquiries Act, C.C.S.M. c.F52.* The primary purpose of an inquest, as set out in *The Fatality Inquiries Act section 33(1),* is to determine the identity of the deceased, the facts surrounding the death, and whether the death was preventable. The Inquest Judge can make recommendations for changes to “the programs, policies or practices of the government and the relevant public agencies or institutions or the laws of the province” where the Judge is of the opinion that such changes “would reduce the likelihood of death in similar circumstances.”

[8] In this instance, the Chief Medical Examiner (“CME”) for the Province of Manitoba called an Inquest on March 6, 2008, and identified the following issues to be addressed:

1. To determine the circumstances under which Mr. Szabo’s death occurred; and

2. To determine what, if anything, can be done to prevent similar deaths from occurring in the future with regard to, but not limited to, the following:

    a. prevention of falls from spectator stands at the stadium;

    b. appropriateness of taking seriously injured patients to hospitals other than the major trauma centre in Winnipeg; and

    c. management of the patient at the Grace General Hospital.

[9] In an effort to address the matters identified by the Chief Medical Examiner, 50 witnesses were called (and some recalled) over a period of 35 days, and extensive documentary evidence was filed. As the evidence was called, a broad and complex range of related issues were touched upon, many of which could have easily been the subject of extensive examination. It became clear during the course of the proceedings that certain topics were simply too complex in nature and too collateral to the central issues to be the subject of extensive review. During the course of this report, those matters may be identified, but will not necessarily be the subject of specific recommendations. To do otherwise would be unfair to those who have knowledge about and a specific interest in those issues.

[10] Having said that, it is often the case that a series of problems, rather than a limited number of discreet issues, culminate to create a “perfect storm” that results in a tragic death. It is important for the Court to consider the individual factors which may have contributed to the death, as well as any “systemic” issues which may have played a role, and, where appropriate, to address both through recommendations.

Culpability- Balancing Statutory Constraints with Factual Findings

[11] It is important at the outset to recognize the unique nature of an Inquest hearing and to respect both the limitations and the responsibilities placed upon the Judge assigned to conduct an Inquest and make recommendations. This is particularly the case where the facts are at issue and the circumstances of the death are contentious. The provisions of *The Fatality Inquiries Act* place specific limitations on findings to be made by an Inquest Judge on issues of culpability. Section 33(2) states:

> In making a report under subsection (1), a Provincial Judge
>
> a) ……..
>
> b) Shall not express an opinion on, or make a determination with respect to, culpability in such a manner that a person is or could be reasonably identified as a culpable party in respect of the death that is the subject of the Inquest.

[12] The extent to which an Inquest Judge can receive evidence and make factual findings on contentious issues which might be necessary for accurate conclusions and appropriate recommendations arose in *Swan v. Harris* (1992), 79 Man. R. (2d) 188 (Q.B.). An Inquest was called after two brothers died within several months of each other of self-inflicted gun shot wounds. The Inquest Judge heard evidence suggesting that the father of the two deceased had been abusive towards them. While the presiding Judge commented upon the evidence, he did not conclude that the deaths were related to any allegations of abuse. The father brought an application for a declaration that the Inquest Judge had acted without jurisdiction and applied to quash those parts of the report that referred to allegations of abusive conduct. Upon review, Jewers J. denied the application, concluding that the Inquest Judge had “inquired into a subject that was potentially relevant, and then reported on it” (paragraph 16). Had the Inquest Judge delved into a subject that was “utterly remote and made that part of the report”, a jurisdictional argument might have successfully been argued.

[13] A similar conclusion was earlier reached in *Head and Head v. Trudel PJC* (1988), 54 Man. R. (2d) 145 (Q.B.); affirmed at (1989), 57 Man.R. (2d) 153 (C.A.). In that case, an Inquest was ordered after the shooting death of a civilian during an incident between the civilian and members of the R.C.M.P. At the conclusion of the inquest, the parents of the deceased applied to quash the

report and sought an order directing that a new inquest be held, or alternatively for an order of mandamus directing that certain evidence be received. Their complaints included, among other things, that the manner in which the Judge conducted the Inquest impeded "their intended civil proceedings against the R.C.M.P. and the individual officers." Kroft J. (as he was then) dismissed the application, noting that the object of an Inquest "is not so much the protection of private rights as it is the furtherance of the public interest. That is, the community has a right to be informed about the circumstances surrounding sudden, suspicious or unexplained deaths." While concluding that the reopening of the Inquest was not justified, he did acknowledge some of the applicants' concerns, expressing that there was "some merit" to their argument that "an extended and far more reaching inquest would have been appropriate and helpful." (paragraph 22).

[14] The issue of culpability was considered at some length in *The Report of the Manitoba Pediatric Cardiac Surgery Inquest.* Commenting on the rationale behind the limitations placed on an Inquest Judge, Sinclair A.C.J. (as he was then) made the following observations (at page 8):

> The need to limit the ability of presiding officials at inquests to comment upon the issue of culpability is obvious. There are disciplinary, civil and criminal laws in place that are intended to address the issue of legal culpability. Those laws contain procedures that respect the rights of individuals (such as complainants, witnesses and defendants), including the right to notice, disclosure, counsel, reply, cross-examination etc.
>
> Provisions in fatality inquiries legislation, on the other hand, allow for evidence to be heard informally, sometimes *in camera,* and for persons to be examined in a manner that is not necessarily consistent with the protective provisions that are normally in place during civil and criminal trials. That is because the purpose of such legislation is <u>not to place legal blame</u> but <u>to determine what happened</u> in order <u>to see if what happened can be prevented from reoccurring</u>. (emphasis added)

[15] The balancing of limits on culpability versus the need to receive and comment upon relevant evidence was considered by the Manitoba Court of Appeal in *Hudson Bay Mining and Smelting Co. v. Cummings P.C.J.* (No. 2), 2006 MBCA 98; 208 Man.R. (2d) 75, when Steele J.A. noted:

> "Although the decision of the inquest judge does not determine specific rights or liabilities of participants in a manner similar to a court, the inquest judge is able to receive evidence on a wide scope of matters which <u>could affect professional or personal reputations and could affect issues relating to civil or criminal liability.</u>" (paragraph 96) (emphasis added)

[16] While specific findings of culpability must be avoided, it is within the purview and in some instances is very necessary for a Judge presiding at an

Inquest to make findings of fact in order to determine if a death was preventable. The failure to provide the relevant factual basis for such a finding, and for the recommendations which follow, could result in recommendations which are meaningless and without proper context. A Judge presiding at an Inquest can receive and consider all relevant evidence, and while findings of culpability cannot be made, findings of fact that support a recommendation can be made, as long as those findings are relevant to the subject matter of the Inquest.

Issues Raised by the Chief Medical Examiner and by the Court

[17] As indicated earlier, the Inquest was called by the Chief Medical Examiner, who outlined in writing the general issues to be addressed. At the conclusion of the hearings, and at the urging of counsel, a number of specific issues were identified by the Court as being appropriate subjects for submissions as to possible recommendations. This Inquest Report will use both the general topics raised by the Chief Medical Examiner, as well as the more specific issues identified through the evidence as a framework for this report.

A. The Fall at the Canad Inns Stadium

[18] The first issue raised by the Chief Medical Examiner relates directly to the manner in which Mr. Szabo fell from the stands at the Canad Inns Stadium. The question was stated as follows:

> "To determine what, if anything, can be done to prevent similar deaths from occurring in the future with regard to, but not limited to, the following:
>
> prevention of falls from spectator stands at the stadium;".

[19] In order to address this issue, it became necessary to review the structure of the stadium itself, including a historical review of the construction of the stadium and the By-laws which established the safety requirements for the physical structure. The Court also heard evidence about changes to the structure over the years and on the applicability of the present-day By-laws to those portions which were, and more importantly, were not altered. It is clear that the relevant construction By-laws are not applied retroactively, and there was considerable evidence as to whether that approach should remain. From a practical point of view, the Court heard evidence as to who should be responsible for any changes that might be the subject of recommendations.

Facts Surrounding Fall at Stadium

[20] In 2006, the deceased, Andrew Szabo was 52 years old. He was married and had one daughter. He was employed full time. He was over six feet

tall and weighed between 130-140 lbs. He had no known medical conditions, took no medications and was considered healthy. However, his wife Barbara Szabo testified that she considered him to be an alcoholic. Several years prior to this incident, biochemical analysis of blood samples taken from Mr. Szabo showed that he had "abnormal liver function, with elevations above normal of bilirubin and liver enzymes". The results were suggestive of "liver damage secondary to alcohol consumption."

[21] On August 4, 2006 Mr. Szabo and his wife made plans to attend a Winnipeg Blue Bomber football game with their friend Randy Gustafson. The trio had not been able to obtain three seats together. The Szabos had purchased seats in Section K, Row 13, Seats 1 and 2 and Mr. Gustafson had a ticket further down the same row. Mrs. Szabo testified that earlier in the day she observed her husband to have one "rye and coke" with his lunch. She testified that when they attended to the stadium, her husband was displaying no signs of intoxication. Prior to the game starting at 6:30 P.M., Mr. Gustafson purchased two beers and brought them to Mr. Szabo who was in a line up for the ATM. They each consumed one drink while Mr. Szabo was in the line. The two men then returned and purchased two more beer, which they drank prior to the commencement of the game. Mr. Szabo and Mr. Gustafson then purchased two beers each to consume during the game. Mr. Szabo carried those two drinks to his seat where he partially but not fully consumed one of the two. At about 7:25 p.m., Mr. Szabo gestured to Mr. Gustafson that they should meet at the lower level. Up to this point in time, there was nothing untoward about Mr. Szabo's conduct or demeanour. He was neither loud nor obnoxious. He was not slurring his words. He was not unsteady on his feet and had no difficulty managing the stairs when he walked up to his seat. Simply put, he was showing no signs of intoxication.

[22] Mrs. Szabo testified that when her husband first stood up, he caught his foot on the row of bench seating immediately in front of them. She attributed this to a combination of her husband's "big long legs and very big feet" being caught up in the narrow bench seating which was the norm throughout the north end zone. Constable Craig Boan, a member of the Winnipeg Police Service's Identification Unit assigned to conduct measurements and take photos at the stadium after the accident, confirmed that the area where the Szabos were sitting was very tight for space. In reviewing the photos of the seating area, he testified that "if I was sitting in that seat…my toes would be up against this seat, or just underneath it, if they were stretched all the way forward…I actually sat in the seat and put there—I'm a pretty big guy, I'm six and a half feet tall have size 14 shoes." He went on to say that he caught his toe on the lip of the seat in front of him and that "I had to be conscious to pull them back a bit and stand up appropriately" to avoid falling. Mr. Darryl Kostenuk, the individual seated in the row in front of the Szabos, assisted Mrs. Szabo in catching Mr. Szabo, who was able to right himself before going down the stairs.

[23] All witnesses confirmed that Mr. Szabo seemed to lose his balance as he started down the stairs, with his upper body "getting ahead" of his lower body.

Mrs. Szabo testified that “it looked like he was trying to catch up, or his feet were trying to catch up to his, his upper body. So he was going down more like on a slant.” Approximately two or three rows from the bottom, Mr. Szabo tripped and fell forward and on to the walkway at the base of the stairs and into the guard rail running along the far edge of the walkway.

[24] The evidence of Constable Boan and the photos of the scene confirmed the observations made when Inquest counsel and other interested counsel attended the Stadium for a view of the site of the accident. The walkway in question runs along the entire base of the seats in the north end zone and is 7 feet 2 inches in width. Patrons access the walkway and end zone seating area from various sets of stairs running up from an area below the stands. The walkway itself is elevated 11 feet 8 inches above field level. The area immediately below the walkway is concrete and can be accessed by a set of stairs, although those stairs are not normally open to the public. At the edge of the walkway is a “guard rail”, constructed of steel pipe approximately 2 inches in diameter. The top horizontal bar of the guard rail is 42 inches from the base of the walkway. A second or center horizontal bar is located 19 inches from the base of the walkway. The guard rail is supported by vertical bars placed at 6 foot intervals.

[25] The evidence as to exactly how Mr. Szabo fell from the walkway to the ground below is somewhat unclear. All witnesses testified that they had an unobstructed view of the fall, and I am satisfied that all were doing their best to provide the Court with an accurate description of the events. Mr. Patrick Walker testified that after Mr. Szabo tripped, the forward motion carried him over the top railing of the guard rail. Tracey Helgason and Taryn Patterson-Moffatt testified that Mr. Szabo went under the rail. Both individuals recall Mr. Szabo striking his head on the center bar of the guard rail. Mr. Wayne Rogers testified that he saw Mr. Szabo go through the second and third railing. All witnesses agreed that Mr. Szabo struck his head on some portion of the metal guard rail and fell through to the ground below.

[26] The manner in which Mr. Szabo fell raised issues related to the present day structure of the stadium. A review of the applicable Building By-laws, both historically and in their present day form (locally and in other jurisdictions) helped to provide context to the discussion. Submissions were heard as to whether any recommendations are necessary regarding changes to the actual structure and to the Building By-laws as they presently are written and applied.

Canad Inns Stadium- A Brief History

[27] Building permit No. 7356/66 was issued on December 20, 1966 for the construction of the facility now known as the Canad Inns Stadium. Construction of the north end zone stands was part of the original project. An Occupancy

Permit was granted on August 9, 1967 by the City of Winnipeg upon the completion of the appropriate inspections. Evidence confirmed that the structure conformed to the requirements of the Building By-laws of the day.

[28] Since that date there have been upgrades to other portions of the stadium, most recently and notably those undertaken to prepare the facility for the Pan Am Games in 1999. As well, a new section of stands was added (the "baseball stands") in 1994 to provide additional seating for the Goldeyes Baseball Team who was using the facility. Those "baseball stands" are adjacent to but not connected to the north end zone. It was agreed by all parties that no "substantial" or "material" changes have been made to the north end zone structure since the issuance on the 1967 Occupancy Permit.

[29] The letter directing the calling of an Inquest and setting out the terms invited the Court to consider issues related to the "stands at the stadium". The evidence received from the Court focused largely on the north end zone and did not examine whether there are building code or other issues in other parts of the stadium. The questions as to whether portions of the stadium, other than the north end zone, comply with the Building By-laws applicable at the time they were modified, or if any further upgrades are necessary to ensure the safety of patrons, will not be the subject of a specific recommendation. An examination of the entire stadium would be necessary to provide proper context for any recommendations deemed necessary. Having said that, the present occupants, in conjunction with the City of Winnipeg, may want to consider whether such a review is necessary.

[30] The Court heard considerable evidence on whether aspects of the north end zone structure complies with present day Building Codes and By-laws. While the Stadium complied with the Building By-laws at the time of its construction, the Court heard evidence that Building Codes and By-laws are not applied on a retroactive basis to existing structures unless those structures are the subject of "substantial" renovations. While there have been changes to other portions of the stadium, there have not been any "substantial" alterations to the north end and therefore subsequent amendments to the Code have not been applied to that part of the stadium. Discussion followed about whether there should be any retroactive application of Building Codes, particular to outdoor structures or those classified as Assembly Occupancy.

[31] The following aspects of the north end zone were considered as part of the Building Code review:

- Spacing of the seats
- Minimum seat width per person
- Width of the aisle

- Handrails in the aisles
- Steps in aisles- rise and run
- Exits
- Widths of exits
- Risers and tread of exits
- Heights of guards on exits

[32] It became clear that some of the foregoing issues were not relevant as to the incident involving the fall of Mr. Szabo. While the Court heard some evidence respecting the width and spacing of the seats, and with respect to the exits, those items were not directly related to the incident involving Mr. Szabo and will not be the subject of any recommendations.

Local and National Building Codes- A Brief Background

[33] Historically, individual cities were allowed to write and administer their own Building Codes. In order to improve what was a patchwork system across the provinces and the country, the National Research Council of Canada published the first National Building Code ("NBC") in 1941. Since 1960 there have been revisions of the NBC approximately every five years up to 1995. The most recent addition of the NBC was published in 2005.

[34] The regulation of building construction in Canada is now a provincial responsibility, although many provinces have adopted the NBC as the basis for their provincial code. The Province of Manitoba adopted the 1970 Building Code in November 1974 (the Manitoba Building Code or "MBC").

[35] When construction began in1966, the Metropolitan Corporation of Greater Winnipeg was responsible for passing By-laws governing the construction of structures such as the stadium. The relevant By-law in effect in 1966 was Winnipeg Building By-law No. 711/1965, which was based on the National Building Code (1965) (with amendments). Winnipeg Building By-law No.711/1965 remained in circulation until Winnipeg Building By-law No. 740/1974 was adopted in November of 1974.

[36] The Court heard evidence from a variety of witnesses on issues related to the different By-laws which have been or are in place, and the interrelation of the structural requirements set out in the Building Codes and By-laws to the events which resulted in Mr. Szabo's "slip and fall" accident. The Court heard from Mr. Craig A. Brown, a registered Professional Engineer in British Columbia and Alberta and a senior mechanical engineer with the company "MEA Forensic" who gave expert opinion evidence on how "slips and falls" occur. He also

compared the By-laws in place at the time the stadium was constructed with their present day counterparts and with similar By-laws from other jurisdictions.

[37] The Court also heard from the president of MEA Forensics, Dr. Gunter Siegmund, a registered professional engineer with a Ph.D. in biomechanics. He also provided expert evidence in relation to Mr. Szabo's fall at the stadium.

[38] Information was provided by Mr. Chris Jones, from the Office of the Fire Commissioner, who explained the administrative process in place with respect to the amendment of Fire Codes or Building Codes. Mr. Jones has worked for the Office of the Fire Commissioner since April, 2003 and has held the position of Fire Commissioner since November, 2009.

[39] As well, the Court heard from Mr. Evanish Gupta, acting Administrator for Commercial Plan Examination and Inspections for the City of Winnipeg, who provided considerable information about the various By-laws, their interpretations, and their applicability to the stadium site.

The Width of the Aisle

[40] Subsection 3.3.3. of By-law 711/1965 addressed the width of aisles in the grandstands of Outdoor Places of Assembly, stating that the width of the aisle should be "not less than 44 inches at the narrowest point so that there are not more than 20 seats between any seat and the aisle". Various measurements were taken in the stands in the north end zone. It was confirmed by Mr. Gupta that the aisle width at the relevant location varied between 42 7/8 inches and 45 7/8 inches, in compliance with the By-law requirements.

[41] The width requirement was modified somewhat by Manitoba Building Code ("MBC") 7th Edition sec 3.3.2.4(3) which states that the aisle shall not be less than 48 inches wide. If these requirements were applied retroactively, the aisle used by Mr. Szabo when he fell is slightly narrower than what is called for in the present Manitoba Building Code.

[42] The width of the aisle, on its own, does not appear to have played a role in the fall. However, the width became important when considered in relation to the issue of whether handrails in the aisles might have helped to prevent this fall.

Handrails in Aisles

[43] There were no handrails in the aisle used by Mr. Szabo when he fell. By-law 711/1965 stated that handrails were not required "when the adjacent seat is at the same level as that of the permitted aisle step". There is no mention of handrails in the MBC 7th Edition. Mr. Brown confirmed that a handrail would not be considered a requirement under either the original or the present Building Code. This latter point was questioned given that there is what can be described as an "intermediate" step added to the riser on each stair. However, when

pressed on this issue, all witnesses who were asked confirmed the interpretation provided by Mr. Brown.

[44] At the request of Inquest counsel, Mr. Craig Brown conducted an analysis of Building By-laws from other jurisdictions. It bears noting that Mr. Brown described this type of analysis as being somewhat unusual. He indicated that his opinions are often given in the context of civil litigation between parties, and that this type of comparative analysis is considered to be of no weight. However, in the context of this Inquest, the analysis was a helpful means by which the Court could consider the state of the law in other jurisdictions in the country in order to assess possible recommendations.

[45] Mr. Brown reviewed the City of Vancouver Building By-law 4192 which came into effect on October 1, 1965. With respect to aisles and seating in grandstands, he noted that the Vancouver By-law required that aisles be "not less than 44 inches wide at the narrowest point . . ." He also noted "when steps are permitted they shall not be required to have hand rails when the adjacent seat is on the same level." Mr. Brown conducted a similar comparison to the City of Hamilton, which did not require a hand rail. Similarly the City of Toronto By-law was silent on the issue of rails within aisles. Therefore, the absence of a handrail would not have been contrary to the Codes in Vancouver, Hamilton or Toronto.

[46] The width of the aisle is a relevant factor in the event that a handrail was present or is subsequently deemed to be necessary. Because the requirement was that an aisle be 44 inches wide (or presently 48 inches wide), the presence of a handrail would create what would be considered "two" aisles, thus requiring that the overall aisle measure either 88 or 96 inches (depending upon which Building code is referenced). Mr. Brown also explained that the Building Codes distinguish between an "exit aisle", which would require a hand rail, and a "bleacher" or "stadium" aisle, which does not have such a requirement. He acknowledged that "they've developed these two sort of simultaneous but different definitions and it's, it's a bit of a nightmare from a definition point of view."

[47] The evidence from Dr. Siegmund provided some useful insights into this issue. Although he could not conclusively say that its presence would have prevented the fall, Dr. Siegmund explained the rationale for having a handrail:

> Handrails serve two purposes. One is that they telegraph that you're still on the stair, so particularly elderly rely on it as an indication that there are still more stairs coming. As long as the handrail keeps going down they know that there's more stairs, and when it flattens out, they know that it—the stairs end. The other use for a handrail is recovery, and how people use the rail to recover varies widely but it is, it is there to be used when you do slip or trip. Whether you get it, whether you grasp it, where you grasp it in relation to how you're, how, how you're falling or whether you're falling will depend on—or will dictate the success of the handrail in helping you. But—so we can, we can tease apart your question into….small things and talk about

> them, but the big picture is handrails are there to help people recover when they do slip. So would it prevent this? I don't know.

[48] Dr. Siegmund went on to clarify that a handrail could have been used by Mr. Szabo, had it been present, for recovery once he began to lose his balance, although it would have been easier for that to occur prior to Mr. Szabo "losing control" on the stairs.

[49] Mr. Craig Brown confirmed the benefits of handrails in a public facility:

> "…a handrail has four purposes. One is to provide a visual indicator that there is a flight of stairs coming so that you don't step off, you know, the first tread not realizing that there's a tread or a drop there. Secondly, it gives an indication of how steep the stairway is that you're approaching. Third, it provides some assistance, particularly for ascending, because you can help pull yourself up the stairs. And fourth and what we're dealing with here is that it provides support for or may provide support in the event that somebody loses their balance."

[50] He expressed surprise that the By-laws didn't require one, and noted that "in the event of a loss of balance I don't think there's anything other than a handrail that would necessarily be graspable or reachable readily."

[51] From the perspective of the application of the appropriate By-laws, the witnesses agreed that a handrail was not required, given that the seat was at the same level of the aisle step. However, the absence of a handrail is somewhat troubling. The distinction for the need for a handrail in an "exit" aisle as opposed to a "bleacher" aisle is not well defined. It is recognized that patron comfort must be considered, including the ability of patrons to enjoy an event with clear "sight lines", and that aisle handrails should be designed to accommodate for those requirements. I recognize as well that the addition of a handrail to the aisle in the north end zone may require the modification to the width of the aisle, including the possibility of the removal of some seats. However, the ability of patrons to safely exit from a facility, whether from a seat in the bleachers or via an exit staircase, must be the main priority.

There will be further discussion about the condition of the stairs on the north end zone, including the physical wear and tear on stairs located in an outdoor facility.

<u>Risers and Treads of Exits</u>

[52] Mr. Brown attended to the stadium and conducted his own measurements of the stairs used by Mr. Szabo when he fell and those measurements were attached to his report (Exhibit 117). He measured and recorded the "rise" (the vertical distance from one tread to the next) and the "run" (the horizontal measurement of each tread) in order to assess whether the stairs met present day By-law requirements. Attached as an Appendix to this report is the chart of his measurements.

[53] Mr. Brown noted that By-law No. 711 of *The Metropolitan Winnipeg Act* did not specify the dimensions for the risers or the treads and did not specify the need for uniformity in riser height. By default, the relevant aisle and steps used by Mr. Szabo conform to the requirements of the Winnipeg By-law that was in effect at the time of the construction of that section of the stadium.

[54] Mr. Brown compared the Winnipeg By-law to those in other jurisdictions on this point. The Vancouver Building By-law 4193 which came into effect on October 1, 1965 did not specify dimensions with respect to the rise and run of the stairs within a grandstand aisle but did require that stair risers be not more than 9 inches (230 mm.) in height and the treads not less than 10 inches (254 mm.) in width. The aisle would have met the requirements of the 1965 Vancouver Building By-law.

[55] The City of Toronto By-law 9868, passed on December 10, 1923 stated that "all steps in aisles shall be the full width of the aisle. Risers shall not be more than nine inches (230 mm) in height and treads not less than 10 inches (254 mm) in width". With respect to the width of the aisle and the rise and run of the treads, the Stadium would have met the Toronto by-law requirements.

[56] The City of Hamilton By-law Number 4797, passed on September 29, 1936 required that "the width of the treads and the height of risers shall respectively be uniform throughout the stair." The By-law also states "In a place of assembly, no riser shall exceed 7 ½ inches (191 mm) in height and no tread shall be less than 10 ½ inches in width". Mr. Brown concluded that the *average* rise and run measured at the Winnipeg stadium would have been in accordance with the Hamilton By-law but the variation in riser height would not have been permitted.

[57] Pursuant to *The Buildings and Mobile Home Act* the Province of Manitoba adopted the National Building Code 2005 as the Manitoba Building Code 2005 on June 20, 2006, subject to certain amendments. According to the 2005 National Building Code the riser height for steps in aisles in assembly occupancies (grand stands) should be as follows: "not less than 110 mm. high and not more than 200 mm. high. Further, the variation in height for the adjacent risers shall not be more than 6 mm. (1/4 of an inch). Steps in the aisle are also required to be finished in accordance with section 3.4.6.1(1) which states as follows: "if accessible to the public, shall either have colour contrast or distinctive pattern to demarcate the leading edge of the tread and the leading edge of the landing . . . ".

[58] According to the measurements made by Mr. Brown, there is a variation in the rise and run of virtually each step between the walkway and row 13 where Mr. Szabo would have begun his descent. Two of those stairs exceed the rise allowed by the present Bylaw. The variation, which should be limited to no more than 6 mm, ranges anywhere from 1 to 20 mm. Therefore, considering the requirements of the current Manitoba Building Code, the riser height of the stairs

between section J and K do not meet the present requirements. As well, the variance between the height of the treads exceeds the acceptable range presently identified.

[59] Mr. Brown addressed these variations from a “slip and fall perspective”, noting that a “variance in stairs can make them more difficult to negotiate because the foot doesn’t necessarily come down exactly when or where you expect it to.” Further, while the variations noted may appear small, they are difficult to identify visually and therefore make it difficult to accommodate for them. While acknowledging his somewhat limited experience in actually measuring stadiums like this, he did express “surprise” at the degree of irregularity of the stairs. Of further note is the fact that the greatest variance in the stairs is identified as being between rows 2 and 3, the very location where witnesses identified Mr. Szabo tripped and fell.

[60] Mr. Brown commented on two further present day requirements. Sentence 3.3.2.4 requires that the steps in an aisle “have a finish on the tread conforming to sentence 3.4.6.1(1), which in turn requires that the treads “have a finish that is slip resistant” and “shall have either a color contrast or a distinctive pattern to demarcate the leading edge of the tread and the leading edge of the landing”. While “slip resistant tread” is not defined, Mr. Brown noted that the stairs were not in compliance with these two requirements in that they had nothing which resembled a “slip resistant tread” and had no demarcation lines. In his submission counsel for the Football Club did point out that “white stripes” had recently been painted on the stairs in order to facilitate safety at a rock concert held at the stadium. There is no indication as to whether these lines would meet the requirements of the present By-laws. Further there is no evidence that the treads have been made to be “slip resistant”.

Compliance of Guard Rail at Edge of Walkway

[61] The term “Guard” was not defined in the 1965 Building Code or By-law, and indeed was not defined until the1975 NBC. At the time of construction the height and size of that guard rail was governed by sub-section 3.4.3 of the Winnipeg By-law No. 711. There were no requirements for the number or spacing of intermediate rails or for the spacing of vertical balustrades on a guard rail. The relevant section stated that “all other balustrades and railings except as approved, shall not be less than 3 feet 6 inches in height measured vertically from the adjacent floor level.” The guard rail at the edge of the walkway met the height requirements identified in the 1965 By-law.

[62] The National Building Code 1975 was the first Code in which “Guard” was defined:

> “Guard means a protective barrier around openings in floors or at the open sides of stairs, landings, balconies, mezzanines, galleries, raised walkways or other such locations to prevent accidental falls from one level to another. Such barrier may or may not have openings through it.”

[63] By the time the MBC 7th Edition was adopted, considerable requirements for guard rails were added. The height requirement was increased to 42 inches. It was further specified that the size of any opening shall not permit "passage of a sphere whose diameter is more than 100 mm." An added requirement was that openings between 140 and 900 mm above the level should not be designed as such to "facilitate climbing." These amendments were designed to prevent the head of a small child from becoming stuck in the spaces of a guard rail, and to prevent climbing on the guard rail. The MBC allows some flexibility in the design, if it can be shown that an alternative design "does not present a hazard."

[64] Therefore, considering the requirements of the current Manitoba Building Code (the 2005 MBC), the guard rail does not meet the code's current height requirements. As well, the wide opening between the horizontal bars does not meet the requirement prohibiting passage of a sphere of 100 mm. diameter.

[65] Mr. Craig Brown testified that the City of Vancouver Building By-law 4192 required a guard rail that "stands exceeding 4 feet in height above grade shall be equipped with guard rails approved by the building inspector". No specific height for the guard rail was designated, however elsewhere in the By-law "balustrades and railings" were generally required to be not less than 3 feet 6 inches (42 inches) in height. Therefore, the Winnipeg Stadium stairs and guard rails would have met the requirement of Vancouver's 1965 Building By-law.

[66] Mr. Brown conducted a similar comparison to the City of Hamilton which made no mention of requirements for guards along the edge of a walkway.

[67] The construction of the guard rail is relevant in considering that Mr. Szabo's fall to the ground below was not prevented by the existing guard rail. Witnesses testified that Mr. Szabo struck the guard rail at the edge of the walkway before falling through to the ground below. The evidence was less clear as to which portion of the railing he struck and as to whether he went over, through or under the railing when he fell.

[68] The evidence of Dr. Siegmund clarifies this issue. Dr. Siegmund, a senior engineer with the company MEA Forensic provided a report (Exhibit 134) and testified as to his findings. After conducting a series of studies examining the physics of Mr. Szabo's fall, he concluded that Mr. Szabo likely did not go over the top railing. Dr. Siegmund was unable to definitively conclude which portion of the railing Mr. Szabo passed through or whether he struck his head on the lower rail rather than the upper rail. Dr. Siegmund was able to say that if he did strike the upper rail, he would not have been airborne over the entire platform.

[69] Dr. Siegmund also calculated the "impact speed" at which Mr. Szabo would have struck both the railing and the ground below, noting that "generally speaking, impacts with higher impact speeds have a greater likelihood of causing injury." Dr. Siegmund estimated that Mr. Szabo's head would have impacted with the railing at a rate of approximately 3 to 3.5 meters per second. Addressing the

fall from the platform, Dr. Siegmund calculated that if Mr. Szabo had fallen under the lower horizontal rail, his impact speed was estimated to have been between 7.7 and 8.3 meters per second; if he had fallen between the two rails, his impact speed would have been between 8.3 and 8.9 meters per second. By these calculations, the impact speed with which Mr. Szabo hit the ground was more significant than the impact from striking the guard rail. Dr. Siegmund explained that "the reason these numbers are important is this is essentially the second impact that Mr. Szabo experienced. So he experienced one impact with the rail and a second impact with the ground. And from an injury perspective, we're interested in the relative magnitudes of those two impacts."

[70] Dr. Siegmund also addressed the issue of the "causation" of Mr. Szabo's injuries. While he noted that some form of barrier would have prevented Mr. Szabo from falling off the walkway to the ground below, he also fairly noted that if the first impact had been against an "impenetrable" barrier, that impact may have resulted in Mr. Szabo sustaining a neck or spinal cord injury or a skull fracture, either of which carries its own set of risks, including death. The exact nature of these injuries, if any, were impossible for Dr. Siegmund to predict and would be dependent on the nature of the "impenetrable barrier." Padding or other soft material might have had the effect of deflecting the impact somewhat but would not reduce the impact of the injury.

[71] The "baseball stands", which are adjacent but not attached to the north end zone stands, has a guard rail which appears similar to that found in the north end zone. However, rather than having an open space between steel pipes, that guard rail has sheets of Plexiglas between the vertical support pipes. Dr. Siegmund noted that this Plexiglas barrier is clamped along the bottom edge only, thus allowing for movement of 2-3 inches or 50-75 millimetres. He described this cantilevered Plexiglas construction as being "more compliant or softer" than if the barrier was a solid structure or if a chain link fence were affixed to the steel poles.

[72] Accepting Dr. Siegmund's evidence that it was unlikely that Mr. Szabo went over the top of the railing, and given that no other concerns were raised in the evidence, it is not necessary to make any recommendations regarding the height requirements for guard rails. What is at issue is the way in which the guard rails in the north end zone are constructed and whether any recommendations should flow respecting their existing configuration.

[73] Counsel for the Winnipeg Football Club ("The Club") submits that no recommendations are necessary regarding the present guard rails. He argues that Mr. Szabo's accident, while tragic, was exceptionally unusual. Certainly there is no evidence before the Court that such an incident has occurred before. Counsel for The Club filed a report prepared by Dr. George Pearsall, a licensed Professional Engineer and Professor Emeritus of Mechanical Engineering and Materials Science at Duke University, North Carolina (Exhibit 135). Dr. Pearsall's report was accepted and he was not called to give evidence. His report noted

that the stadium met the Code requirements in place at the time of construction and included a statistical analysis of the number of patrons attending Canad Inns Stadium. Dr. Pearsall concludes that “only one fatality over the lifetime of this stadium is strong statistical evidence that the railing through or over which Mr. Szabo fell was reasonably safe in its design and construction.”

[74] Mr. Chris Jones, from the Office of the Fire Commissioner, testified to, amongst other things, the type of information taken into account when consideration is given to changing a Building Code. He confirmed that past experience, including statistics, are assessed. However, when questioned on this point, Mr. Jones did not adopt the position put forward by Dr. Pearsall. He made it clear that it is not necessary to wait for an incident to occur before considering or instituting a change. I would add to this further by again noting the purpose of this Inquest, which is to consider whether there are changes which should be recommended that “would reduce the likelihood of death in similar circumstances.”

[75] It was made clear throughout the Inquest that Building Code requirements, once changed, are not applied retroactively to existing structures unless “substantial” changes are made to that structure, and then only to the part of the structure which is changed. The Court heard evidence that portions of the stadium were upgraded in preparation for the 1999 Pan Am Games. Because those changes were made to different portions of the stadium, this created the somewhat anomalous situation that the north end zone was not considered to be “substantially” changed and therefore the structure, including the guard rails, were not required to be “Code compliant.” In his evidence Mr. Gupta noted that the term “substantial” has not been defined in the Manitoba Building Code, but notes that there is a definition in the Ontario Building Code.

[76] The construction of the “baseball stands” in 1994 provides the most glaring example of this piecemeal approach to the application of Building Code requirements. As noted by Dr. Siegmund, the guard rail along the walkway of the baseball stands was constructed using a system of steel pipes and cantilevered Plexiglas. Despite the fact that these stands are similar in appearance (the walkway along the baseball stands is somewhat narrower than the walkway in the north end zone), and despite the fact that these stands are adjacent to each other, there was no requirement that the north end zone guard rail be upgraded as the stands were not connected to each other. If Mr. Szabo had tripped in the “baseball stands” his fall would have been blocked by the Plexiglas guard rail. While I recognize that he may have sustained other injuries, he would have been spared the “second” fall and significant effects which flowed from that fall. The evidence established that the fractured pelvis sustained by Mr. Szabo, the complications from which eventually caused his death, was caused by the impact of falling from the walkway, through the guard rail, to the ground below.

[77] I am mindful of the fact that the Canad Inns Stadium may be demolished as a new stadium is under construction. It is understandable that there would be

some reticence in spending significant sums of money in upgrading a facility which may be no longer in use. However, until such an event occurs, it is important that a facility which is used by such an extensive number of individuals be properly maintained and that the safety of the patrons be of the highest priority.

The City of Winnipeg- Record Keeping

[78] During the discussion in evidence regarding the Plexiglas guard rail installed along the baseball stands walkway, a question arose as to whether it met code requirements. The issue related to the amount by which the Plexiglas could move and whether that contravened the Code requirement that the size of any opening shall not permit "passage of a sphere whose diameter is more than 100 mm." Photos depicting other facilities demonstrated examples where the Code may not have been followed.

[79] Unfortunately, despite repeated request, the City of Winnipeg was unable to produce accurate records identifying the notes of the building inspector who approved the Plexiglas guard rail. The Court was advised that a review of the Winnipeg Enterprises Corporation revealed significant documentary shortfalls. As well, counsel advised that the City of Winnipeg is in the process of computerizing all of its records.

[80] Given the information provided by counsel, the Court will not make a specific recommendation respecting the record keeping. As a reminder, it is important for the City of Winnipeg to note that they must ensure that accurate documentation is maintained particularly as it relates to building inspector's reports.

Retroactive Application of Building Codes

[81] It is clear from all of the evidence that building codes have historically not had any retroactive application in Canada. Standards set by a particular building code will only apply to a new structure or to an existing one where "substantial" changes are being undertaken.

[82] At first blush the issue seems relatively straightforward. It is clear that aspects of the north end zone stands are not compliant with present Building Codes. It is also clear that a "Code compliant" guard rail would have prevented Mr. Szabo's fall to the ground below. Therefore, it would seem simple to suggest that making guard rails such as the one at Canad Inns Stadium subject to retroactive upgrade would avoid incidents like this one from occurring in the future. It also seems simple to suggest that all Building Code amendments should apply retroactively in order to allow members of the public to enjoy facilities which meet up-to-date safety requirements.

[83] However, those involved directly in the creation and enforcement of Building Code point out that this issue, unfortunately, is not that simple. But for a

few discreet examples, the retroactive application of Building Code requirements was described as “unprecedented” in Canada. The Court heard evidence as to the rationale for this approach from a number of witnesses. Mr. Chris Jones, from the Office of the Fire Commissioner, explained the administrative process in place with respect to the amendment of Fire Codes or Building Codes. Mr. Jones has worked for the Office of the Fire Commissioner since April, 2003 and has held the position of Fire Commissioner since November, 2009. The Office of the Fire Commission was described as a special operating agency of Manitoba’s Department of Labour and Immigration, and is the office that is responsible for Manitoba’s building, plumbing and fire codes. The Office also provides guidance to municipalities and planning districts with respect to permit issue and interpretation of the code. The office includes approximately 75 staff members, including a number of staff engineers and other “codes and standards” officers.

[84] Mr. Jones gave considerable evidence about the process for the development of and any changes to the National Building Code (NBC). The three partners identified in the NBC process are 1) The Provincial/Territorial Policy Advisory Committee on Codes (PTPAC); 2) The National Research Council of Canada; and 3) The Canadian Commission on Building and Fire Codes (CCBFC). It is this third group that actually looks at the revisions to the code and advises or approves the final revision. The NBC is reviewed and changed in a process which spans five years and involves all of the aforementioned partners through a series of consultation and subcommittee meetings. Mr. Jones noted that, except for certain exceptional situations, it usually takes the entire five year period to make a change.

[85] Mr. Jones confirmed that under *The Building and Mobile Home Act*, Manitoba has chosen by legislation to automatically adopt the NBC. If revisions are to be made to the NBC they are included in what is known as the Manitoba Building Code (“MBC”) and those revisions are adopted by Regulation. Examples were provided as to specific circumstances where the NBC was not followed in Manitoba. Any revisions or changes to the NBC are dealt with by the Manitoba Building Standards Board, who provides advice to the Minister. Mr. Jones identified the issue of retroactivity as being a “policy related issue” that would be considered by the Provincial/Territorial Policy Advisory Committee on Codes.

[86] Mr. Jones testified that the Building and Fire Codes “typically only apply to new buildings or what would be considered a major renovation”. He confirmed that certain aspects of the Fire Code are retroactive, but those are issues that relate more to life safety. When asked to clarify why certain aspects of the Fire Code were applied retroactively, Mr. Jones emphasized that the Fire Code deals with issues of “life safety” as opposed to the Building Code which, while addressing some life safety issues, focuses more on design, engineering and architectural issues.

[87] The issue of whether certain aspects of a public facility, such as the Canad Inns Stadium, could be the subject of retroactive review was addressed during the evidence of Mr. Evanish Gupta, Senior Plan Examiner for the City of Winnipeg. Mr. Gupta described the National Building Code and the National Fire Code as "companion documents". As a result of inquiries made by the Court, Mr. Gupta suggested that certain issues, such as the openings for guard rails, the hand rails in the aisles, and the system of egress from an "Assembly Occupancy" building could be transferred to the Fire Code, thus allowing for retroactive review. Mr. Gupta's interesting approach to the issue was one that was not adopted by counsel for the City of Winnipeg. Indeed, Mr. Gupta himself recognized that there were challenges to his suggested approach, particularly as it relates to the focus of the two Codes and the areas of expertise of those assigned to the enforcement of the Codes. He fairly noted that responsibility for the enforcement of the Manitoba Building Code lies with the Development and Inspection Division of Planning Property and Development Department whereas the enforcement of the National Fire Code lies with the Fire Prevention Branch of the Fire Department.

[88] When asked about the issue of retroactivity generally, Mr. Jones confirmed that there is an ability to single out for special treatment specific buildings and classes of structures, such as the "Assembly Occupancy" buildings defined under Part Three of the Code. He suggested that the Manitoba Building Standards Board is the group best suited to consider issues of retroactively, as there are "a whole myriad of issues" to consider such as the interplay of other codes, the cost, and the impact at a national level. He disagreed with the suggestion that issues such as guard rails should be moved to the Fire Code, pointing out that in many jurisdictions the Fire Code is administered by the Fire Department and the Building Code was administered by the Planning Group. He did indicate that, without having thoroughly studied the issue, in some circumstances and with some "Assembly Occupancy" facilities, the retroactive application of some requirements, such as guard rails, may be appropriate.

[89] Mr. Jones expressed the concern that revisiting a Building Code issue on a retroactive basis would be "a very difficult thing to administer". He did acknowledge however that Building Codes "don't change dramatically" and that he "wouldn't envision that if a building you built today, twenty years from now there would be dramatic changes to it but if you looked back twenty years ago to today there were dramatic changes in building construction so I don't' know how you would ever get resolution ten, fifteen years from now even on one issue". He did acknowledge that there were certain smaller issues such as the guard rail issue which would not be an overwhelming issue to undertake after consultation with the stakeholders.

[90] However, it is also clear from the evidence of Mr. Jones that such a recommendation ought first to be put to the Board for their review and consideration. If such a recommendation were to be applied on a wide scale basis, the consultation of all of the stakeholders and the careful review of the

committee would be important and helpful. It does not appear realistic, as suggested by Mr. Gupta that issues such as guard rails and aisles ought to be moved to the Fire Code. Despite this helpful and practical suggestion made by Mr. Gupta, the evidence seems to suggest that structural issues such as guard rails and aisles ought to properly remain in the Building Code.

[91] While it does seem somewhat unusual that there has been such a firm stand taken on the issue of retroactivity of certain building code issues, it is understandable that there is a desire to maintain a degree of certainty and not to impose unreasonable expectations on the building industry. However, it is also clear from the evidence of Mr. Jones that there is *some room* for the industry to consider the issue of retroactivity. Certainly the evidence that the building codes do not change dramatically every five years supports the suggestion that some form of retroactivity as it relates to certain issues that impact on public safety might be workable. Counsel for the City of Winnipeg endorsed the suggestions made by Mr. Jones that any recommendation forthcoming from the Inquest ought to be framed in such a way as to invite study of these various issues by the committees with expertise in this area.

[92] I am also mindful of the evidence which suggests that those charged with the responsibility of enforcing the Codes have a degree of latitude, particularly where it can be established that a proposed deviation from the strict wording of the Code can be allowed without compromising safety. If the same approach was taken with respect to retroactive changes, it seems that certain upgrades could be required without the overwhelming hardship some counsel have suggested would automatically result. The evidence that building inspectors maintain the discretion to allow for digressions from the building code where such a digression does not negatively impact on public would seem to support the notion that retroactivity is not an unworkable concept.

Recommendations Regarding the Canad Inns Stadium and the Manitoba Building Code

[93] It is impossible to determine with absolute certainty that the presence of a hand rail would have prevented Mr. Szabo's unfortunate fall. That, however, is not the mandate of the Inquest. An Inquest Judge is invited to recommend when it is concluded that those changes "would reduce the likelihood of death in similar circumstances."

[94] Bearing in mind that mandate and the findings of fact and analysis in the forgoing paragraphs the Court makes the following **Recommendations**:

1. The Building Standards Board study the need for hand rails in "bleacher" aisles as well as "exit" aisles, with a view to recommending that hand rails be included in all "bleacher" aisles in Assembly Occupancy Facilities;

2. That the City of Winnipeg Building Inspectors Office require that a Building Inspector attend forthwith to the Canad Inns Stadium to assess the safety of the north end zone exit aisles. In the event that concerns about wear and tear, weathering, or variances in the rise and run of the stairs create safety concerns, the Inspector direct that a hand rail be installed along those stairs. The City of Winnipeg shall bear the cost of the installation of any hand rails, as well as any modifications to the aisles or the seating to accommodate such a hand rail;

3. That The City of Winnipeg Building Inspectors Office examine the treads of the north end zone bleacher aisles to determine if they "have a finish that is slip resistant" and "have either a color contrast or a distinctive pattern to demarcate the leading edge of the tread and the leading edge of the landing." If the treads do not have this type of finish, or if the color contrast or distinctive patterns are not sufficient to demarcate the leading edge of the tread or the leading edge of the landing, the Inspector shall direct that it be applied forthwith and The City of Winnipeg shall bear the cost of the application;

4. That the City of Winnipeg direct the Winnipeg Football Club to take immediate steps to modify the guard rail running along the walkway in the north end zone of the Canad Inns Stadium so that it is brought up to compliance with the 2005 Building Code requirements and that The City of Winnipeg be responsible for any costs related to the changes to the guard rail;

5. That the Building Standards Board and The Provincial/Territorial Policy Advisory Committee on Codes (PTPAC) study and consider

whether there are issues related to public safety contained within the Building Code that ought to be considered for retroactive application;

6. That the Building Standards Board should recommend a definition for the term “substantial” as it relates to renovations and changes to existing structures or portions of structures.

The Winnipeg Football Club and Canad Inns Stadium – a Brief Background

[95] The Winnipeg Football Club ("The Club") is a Letters Patent not-for-profit corporation that was created in 1951 with the objective of "carrying on without pecuniary gain objects of a sporting character". Originally named the "Winnipeg Rugby Football Club" the name was changed to "The Winnipeg Football Club" in 1961.

[96] The Canadian Football League ("the CFL") is an unincorporated group of corporations that are entitled to professional football franchises governed by the Constitution of the CFL. The various corporations that presently comprise the Members Club in the CFL consist of privately held corporations as well as not-for-profit or publicly owned corporations such as the Winnipeg Football Club. The CFL sets the rules and schedules the games that are played in Winnipeg and other cities in Canada.

[97] Until June, 2004 the Winnipeg Football Club was a sub-tenant of Winnipeg Enterprises Corporation ("WEC"). The WEC assigned its position as tenant of the City of Winnipeg (with the City's consent) in respect of the Canad Inns Stadium property effective June 1, 2004. Until that date, a lease agreement between the City of Winnipeg and WEC governed the operation and control of the stadium premises. On June 1, 2004 the Winnipeg Football Club became the party responsible for managing, operating and maintaining the stadium premises.

The Winnipeg Blue Bomber Football Club - Are Further Safety Requirements Necessary?

[98] The Court heard considerable evidence about the steps taken by the Winnipeg Football Club ("The Club") to ensure fan safety before, during and after Winnipeg Blue Bomber Football games. Members of the Court party also conducted a site visit to the Stadium.

[99] There is no doubt that the management of the number of people who attend Winnipeg Blue Bomber football games is a daunting task. It is also clear that the Winnipeg Football Club has taken a number of steps in an attempt to proactively address issues of fan safety. While it is not necessary to review all of the detail of fan security and safety, a review of some highlights are helpful in considering whether further steps are necessary, given the nature of this accident.

[100] At the outset, it is only fair to note that Mr. Szabo's tragic fall was an unusual incident and one that had not been witnessed or reported in the past. This is of some significance given the extensive use made of the Stadium since it was built.

[101] The Court heard from Mr. Kenneth Meakin who at the time of the accident held the title of “Security Coordinator” for the Winnipeg Football Club. He testified to the extensive training he had taken as provided by the Manitoba Liquor Control Commission and Tourism Manitoba. He confirmed that the Club sells beer in two formats, bottled beer in 12 oz cups and draft beer that is sold in 16 oz cups, with a maximum of two beers purchased by each customer.

[102] He also testified as to the various levels of security instruction provided to ensure fan safety to those personnel working and volunteering at the games. He testified that the Club hires private security personnel and uses the services of a crew of volunteers (“The Flight Crew”) to provide assistance to the fans during the game. The Club also pays for members of the Winnipeg Police Service to attend each game. The Club retains the services of “Criti Care” to provide medical assistance in the event of an incident. Mr. William Sommers, CEO of Criti Care confirmed that the company is retained to provide an average of 10 paramedics per game.

[103] The Court heard from Shirlee Preteau who held the position of Vice-President of Facility and Events Operations with The Winnipeg Football Club at the time of the incident. Ms. Preteau provided the Court with extensive information respecting the efforts taken by the Club to provide fan safety. She provided information with respect to the sale of liquor at the games and the steps taken by the Club to ensure safety as it relates to alcohol consumption. Ms Preteau explained in detail the instructions given to the “Flight Crew” and reviewed the “Flight Crew Handbook” which is provided to volunteers and addresses a variety of fan safety issues including issues related to the consumption of alcohol by patrons of the game. Both Ms Preteau and Mr. Meakin explained to the Court the obligations of the Club where patrons are observed to have over-consumed alcohol and the actions to be taken if there are visible signs of impairment or intoxication.

[104] This information is interesting on two levels. First, Ms Preteau was candid in her review of the Concession Agreement dated October 21, 2005 which was filed as an exhibit. It is clear that The Winnipeg Football Club benefits from the profits related to the sale of alcohol. However, it is also clear that the Club has imposed measures which are more restrictive than those required by the Manitoba Liquor Control Commission (“MLCC”). Secondly, her evidence must be considered in light of the evidence provided by Mr. Jim Haslund, Supervisor with the MLCC. Mr. Haslund confirmed the proactive measures taken by the Club as it relates to the sale of alcoholic beverages. He testified as to the various liaison steps taken between the club management and the MLCC. Of specific interest is the fact that only a very limited number of complaints have ever been received by the MLCC related to fan activity at the game and the over-consumption of alcohol. Mr. Haslund confirmed that the amount of alcohol that the club allows to be sold to patrons is less than those limitations established by the MLCC.

[105] Most importantly, however, the Court must consider the evidence as it relates to the incident involving Mr. Szabo and what role, if any, the sale of alcohol at the Canad Inns Stadium contributed to this tragic incident. To that end, the Court heard evidence from Mrs. Szabo, from individuals sitting in and around Mr. and Mrs. Szabo during the game, from Randy Gustafson, and from the paramedics and medical personnel who attended to Mr. Szabo after the accident. In short, the evidence confirms that Mr. Szabo was showing virtually no signs of impairment or intoxication while at the game.

[106] Coupled with this is the fact that Mr. Szabo actually purchased only a small amount of beer while at the stadium. Mr. Gustafson testified as to the specific number of drinks he and Mr. Szabo consumed. Mrs. Szabo testified that she observed her husband to consume a single "rye and coke" several hours prior to the game. Their evidence, while forthright, is not consistent with the findings provided by Dr. Robert Meatherall, toxicologist, who tested the blood sample taken from Mr. Szabo at 00:55 hours on August 5th (approximately 5 ½ hours after the fall) and found a blood alcohol level of 186 mg % in 100 ml. of blood. Dr. Meatherall estimated that Mr. Szabo's blood alcohol level would have been between 221 mg % and 276 mg % on 100 ml. of blood at the time of the fall. Based on these calculations, he was able to provide the Court with various scenarios as to the rate and amount of alcohol consumed by Mr. Szabo, none of which were consistent with the observations of either Mrs. Szabo or Mr. Gustafson. I accept without hesitation both their evidence, and the only conclusion that can be drawn is that Mr. Szabo had more to drink prior to attending the game than his wife was aware.

[107] Dr. Meatherall also testified as to the effects of this level of blood alcohol on an individual who drinks on a daily basis. He confirmed that individuals can develop a tolerance toward the effect both on a physiological basis and on a psychological basis. In other words, individuals can withstand higher concentrations and are able to function physically and mentally better than an individual who does not drink on a regular basis. However, while they can accommodate certain activities, he testifies that they are less able to perform acts which require "multi-tasking," providing the example of driving a car which requires multiple layers of concentration.

[108] It is clear that Mr. Szabo did lose his balance both prior to departing his seat and while going down the stairs. While he was an individual who had learned to mask the effects of alcohol in his system, it may very well be that his elevated blood alcohol level contributed to his fall on the stairs and to the subsequent pavement below. However, there is no evidence to suggest that he was demonstrating overt signs of impairment. The evidence does not indicate that the over-service of alcohol at the Canad Inns Stadium by The Winnipeg Football Club on August 4, 2006 played any role whatsoever in the fall which led to Mr. Szabo's death. Bearing in mind the evidence that the Court heard as to the safety steps taken by the Winnipeg Football Club, the evidence of representatives of the MLCC, and the limited number of incidents actually related

to alcohol consumption that have been the subject of complaints, there is no evidence to suggest that further recommendations with respect to patron safety are necessary at this time, either arising out of this incident or arising out of the evidence generally.

B. The Transport of Mr. Szabo to the Grace General Hospital

[109] The second issue raised by the Chief Medical Examiner related to the decision made by Winnipeg Fire and Paramedic Service staff to transport Mr. Szabo to the Grace General Hospital. Specifically, the questions stated:

> To determine what, if anything, can be done to prevent similar deaths from occurring in the future with regard to, but not limited to, the following:
>
> a) ……;
>
> b) appropriateness of taking seriously injured patients to hospitals other than the major trauma centre in Winnipeg; and . . ..

[110] In order to address this question, the Court heard evidence about the different paramedic organizations operating in Winnipeg, the training of those paramedics who assisted Mr. Szabo, the type of assessments completed by the paramedics at the scene, and the "triage" protocols governing the transport of patients, The Court also heard evidence on a variety of other issues touching upon emergency room care in Winnipeg.

Facts Regarding Paramedic Intervention

[111] When Mr. Szabo fell from the stands he was attended to almost immediately by paramedics from "Criti Care", a private paramedic service retained by the Blue Bomber Football Club to provide medical care to patrons of the stadium. Criti Care is a federally incorporated organization and Mr. William Sommers is the Chief Executive Officer.

[112] Mr. Sommers is also an Advance Care paramedic and was one of the first individuals to attend to Mr. Szabo immediately after his fall. He described Mr. Szabo as being in a "supine" position with eyes that were open but not making eye contact. He noted that Mr. Szabo was making incomprehensible sounds and there was a small amount of blood under the back of his head. Mr. Sommers began a primary assessment and determined that Mr. Szabo had sustained a broken clavicle and that there was increased "moaning and groaning" when examining Mr. Szabo's pelvic area. He noted a strong odour of liquor from the patient. Mr. Szabo's Glasgow Coma Scale ("GCS") assessment score was 9 out of 15. Mr. Sommers' initial conclusion was that Mr. Szabo made "a poor general impression" due to the constellation of the findings including a head injury, thorax injury, tenderness to the pelvis and multiple forms of trauma. He concluded that it was an urgent case and contacted the Winnipeg Fire and

Paramedic Service ("WFPS") from his cell phone as Criti Care's role was to remain at the stadium rather than to transport patients.

[113] Mr. Martin Nienhuis was the Criti Care paramedic partnered with Mr. Sommers at the north end of the football field. Mr. Nienhuis was both a full time "primary care" paramedic with the WFPS as well as a part time employee of Criti Care, both as an "intermediate care" paramedic and presently in the position of Divisional Chief of EMS Operations. Immediately after the fall, Mr. Nienhuis went to the medical room approximately 10 feet away to gather the equipment and bring a stretcher to Mr. Szabo's side. Mr. Sommers reported on Mr. Szabo's condition at which time Mr. Nienhuis took over direct care of the patient while Mr. Sommers arranged for transportation. Mr. Nienhuis completed his primary assessment, determining that Mr. Szabo was unconscious, was unresponsive with "abnormal flexing" or posturing and was making incomprehensible sounds. It was he who conducted the GCS assessment and he also took C-spine precautions (by applying a cervical collar) and he initiated an intravenous line for possible future use. Mr. Nienhuis observed that Mr. Szabo had a laceration to the back of his head and an "obvious" clavicle fracture. Both Mr. Sommers and Mr. Nienhuis noted that Mr. Szabo had been incontinent of fecal matter. He noted an increased response by Mr. Szabo when they checked his pelvis but noted no "crepitance" (bone grinding or movement). He also noted Mr. Szabo had bilateral lateral lower back pain.

[114] Criti Care paramedics continued to monitor Mr. Szabo's condition. A second GCS assessment was conducted at 1932 hrs and Mr. Szabo scored a 10 out of 15. Mr. Sommers continued to be concerned about the multiple forms of trauma that Mr. Szabo had suffered and testified that he felt Mr. Szabo should be taken immediately to the Health Sciences Centre ("HSC"). He based this conclusion on the injuries sustained, the low GCS score, as well as the pain in the pelvic area. The so-called "mechanism of injury", being the fact that Mr. Szabo had fallen what he estimated to be 12-15 feet (or 15-20 feet as estimated by Mr. Nienhuis), was a factor considered by Mr. Sommers as part of the overall assessment, but was not his sole or primary concern.

[115] The first WFPS to attend were Mr. Troy Reidy and Mr. Brent Beckiaris. Mr.Reidy confirmed that he received and relied upon the verbal report from Mr. Sommers, who had been his first paramedic instructor. Mr. Reidy spoke highly of Mr. Sommers' general knowledge as a paramedic. Mr. Reidy was advised that Mr. Szabo had fallen 15 to 20 feet onto a pavement surface, that he had a GCS of 9, and that he had other injuries, including the clavicle and the tenderness to the pelvis and lower back. Mr. Reidy accepted Mr. Sommers' assessments and suggestion that advanced life support be contacted.

[116] Mr. Reidy's partner, Mr. Brent Beckiaris confirmed that they met with Mr. Sommers at the scene and it was based upon Mr. Sommers' assessment that they contacted their Medical Supervisor Mr. Charles (Chuck) Thomas. He recalled Mr. Szabo having a deformity to the right clavicle and a laceration to the

back of his head but testified that Mr. Szabo was “conversing appropriately”. He overheard the report given by Mr. Nienhuis to his partner Troy Reidy, after which they loaded Mr. Szabo into the back of the ambulance. They then had a conversation with Mr. Szabo in Mr. Sommers’ presence. It appeared that Mr. Szabo’s neurological status had improved significantly and Mr. Sommers commented on his improved state.

[117] Mr. Thomas arrived a short time later and received a report from the paramedics as to their findings, including the GCS score. Mr. Nienhuis recalled Mr. Thomas inquiring as to whether the findings were that of the WFPS members or of the Criti Care paramedics. Mr. Thomas performed a neurological examination, and Mr. Szabo’s GCS was scored as 15, or normal. There was a conversation between Mr. Thomas, Mr. Reidy and Mr. Beckiaris respecting the destination for the patient. Mr. Beckiaris testified that both Mr. Reidy and Mr. Thomas referred to their trauma triage protocol cards. As a result of that discussion they concluded that Mr. Szabo did not meet the criteria for transportation to the trauma center, being HSC, and concluded that he should be taken to the Grace General Hospital.

[118] WFPS Assistant Platoon Chief Mr. Ronald Sneath also attended the stadium, having overheard the call on the radio. His purpose for attending was to provide organizational assistance at the scene. He confirmed that Mr. Thomas was the Medical Supervisor on scene and would have had more medical experience and that it was Mr. Thomas who concluded that Mr. Szabo should be transported to the Grace Hospital. While Mr. Sneath does not recall the conversation, Mr. Sommers testified that he expressed his concerns to Mr. Sneath about the decision to transport Mr. Szabo to the Grace General Hospital. Mr. Nienhuis also testified that he expressed the view that Mr. Szabo should be transported to the HSC.

[119] The WFPS ambulance departed for the Grace General Hospital after 21 minutes at the scene. Mr. Sommers and Mr. Nienhuis had both offered to accompany the ambulance, but given that the medical supervisor was present, their offers were declined. Mr. Thomas followed in his vehicle and attended into the Grace Hospital with Mr. Reidy and Mr. Beckiaris.

Paramedic Services Provided at the Stadium

[120] There is absolutely no issue with respect to the paramedic services provided by the members of Criti Care. Mr. Sommers and Mr. Nienhuis attended to Mr. Szabo almost immediately after the fall occurred. Their care was provided in a professional manner. Their medical assessment of Mr. Szabo’s condition was very accurate, identifying both those injuries which he had clearly sustained (broken clavicle, laceration to the head) as well as those injuries he had potentially sustained (thoracic injury which was later confirmed to be broken ribs; pelvic tenderness which was later confirmed to be a broken pelvis). They also noted that Mr. Szabo had been incontinent of feces, an important factor to be

taken into account when assessing a trauma patient, and a factor not later noted by other medical professionals who assessed Mr. Szabo. They assessed Mr. Szabo's GCS status on two occasions, and there has been no suggestion that their assessments were inaccurate. Mr. Sommers appropriately took into account Mr. Szabo's consumption of alcohol when assessing his reaction to various pain stimuli and in assessing his ability to be an "accurate historian" regarding the events.

[121] I am satisfied that both Mr. Sommers and Mr. Nienhuis expressed their views as to which hospital they felt was the appropriate facility to attend to Mr. Szabo's injuries. Although Mr. Sommers may not have been as familiar with the WFPS Trauma Triage protocols as Mr. Neinhuis, he was able to identify many of the same concerns as those outlined in the protocol as being the basis for concluding that transport to a trauma center was appropriate. I am also satisfied that when expressing their views on this issue, both Mr. Sommers and Mr. Neinhuis were clear in their opinions and professional in their conduct.

[122] I am also satisfied that Mr. Reidy and Mr. Beckiaris acted appropriately at the scene. When the suggestion was made that Mr. Szabo's injuries required the attendance of the Medical Supervisor, they acted immediately on that suggestion. They followed what was established procedure in their assessment of the patient, their actions were appropriate, as was the documentation of their findings. They, too, conducted themselves professionally in their dealings with the paramedics from Criti Care.

[123] Mr. Ron Sneath and Mr. Chuck Thomas both testified as to their understanding of the Trauma Triage Protocol governing patient transport by WFPS members. Both acted appropriately in attending the scene. Mr. Thomas received information about the injuries and conducted his own assessment of the patient. It is clear that Mr. Thomas was doing his best to follow that protocol. He accompanied the patient to the Grace General Hospital.

[124] The substantive issue is the application of the Trauma Triage Protocol to the situation presented by Mr. Szabo's injuries and assessment. A brief background of the development of the Protocol, the various changes to its contents, and its present content is helpful in analyzing the issue.

Development of a Trauma Triage Protocol

[125] A variety of committees have been established to oversee the workings of the various emergency rooms in the City of Winnipeg, the operation and direction given to the WFPS, and the protocols which govern their employees. Over the years, WFPS employees have been provided with various "triage protocols" which direct the hospital to which any particular patient should be transported. WFPS paramedics and staff regularly received binders with the various protocols and were also provided the protocols on laminated cards.

Although the process is now computerized, at the time staff relied on the laminated cards, the binders and oral updates to those binders and cards.

[126] Accompanying those triage protocols is a map dividing the City of Winnipeg into various "catchment areas" for the purpose of patient transport. Absent exceptional circumstances, a patient injured within a particular catchment area would be taken to the hospital assigned to that area. A map of the catchment areas was filed as Exhibit 4, Section III, F-6, with the Canad Inns Stadium being located in the "green" catchment area, serviced by the Grace General Hospital.

[127] However, where a patient suffers the type of injury covered by one of the "triage" protocols, that patient would be transported according to that protocol. Where a patient experienced a "trauma" injury, paramedics apply the "Trauma Triage Protocol" to determine whether the patient should still go to the hospital in the catchment area or, alternatively, to the HSC, Manitoba's only recognized trauma treatment center.

[128] The trauma triage protocol was established to assist paramedics in determining which patients were in need of the level of care that can best be provided by the trauma centre (HSC). The issue of appropriate triage of patients is one which has been the subject of study across North America for many years. Exhibit 20 is an article entitled *"Guidelines for Field Triage of Injured Patients; Recommendations of the National Expert Panel on Field Triage"* dated January 23, 2009. In discussing the role of the paramedics the article noted as follows:

> "Determining the appropriate facility to which an injured patient should be transported can have a profound impact on subsequent morbidity and mortality. Although basic emergency services generally are consistent across EDs, certain hospitals, called "trauma centers" have additional expertise and equipment for treating severely injured patients."

The article acknowledged that patients with "less severe" injuries might be better served by transport to the closest emergency department. However

> "…the decision to transport a patient to a trauma center or a non-trauma center can have an impact on health outcome. The National Study on the Costs and Outcomes of Trauma (NSCOT) identified a 25% reduction in mortality for severely injured patients who receive care at a Level I trauma center rather than a non-trauma center."

[129] An overview as to how the Trauma Triage Protocol was established was provided by Dr. Robert Grierson, Attending Adult Emergency Physician at the Health Sciences Center and Medical Director for the Winnipeg Fire and Paramedic Service. Recognizing that in an ideal world everyone who needed to go to a trauma centre would be transported there, the triage protocol sought to establish guidelines to assist paramedics in reaching that goal. The overriding problem being addressed by introduction of triage protocols is the issue of "over-

triage" vs "under-triage" of patients. Under-triaging was defined by Dr. Grierson as a patient who requires the care of a trauma centre but who is not taken to a trauma centre. Over-triaging occurs when a patient that does not require the care of a trauma centre is taken to a trauma centre. The risk is that the under-triaged patient who requires trauma care will have that care delayed or denied. The over-triaging of patients can overwhelm a trauma centre and unnecessarily tie up the trauma center's resources. Emergency medical services can be impacted when an exceptionally busy emergency room is unable to accept patients on a timely basis, causing "off-loading" delays for the paramedics, who are then delayed in returning to their duties while waiting to transfer a patient's care to the emergency room staff.

[130] The challenges for emergency rooms created by over-triaging cannot be underestimated and it is an issue being addressed right across North America. Studies and other literature on this area were provided to the Court. Dr. Grierson testified that the American College of Surgeons concluded that an "under-triage" rate of 5 -10% and an over-triage rate of 30 – 50% is unavoidable in a trauma system. He acknowledged that under-triaged patients have to be the subject of a secondary transport to a trauma center. Without any triage protocol Dr. Grierson estimated that trauma centres would be looking at an 80 – 90% over-triage rate.

[131] The HSC, Manitoba's only trauma center, faces its own specific challenges in respect of over-triaging. While it has an exceptionally small catchment area of approximately one square mile, there is the significant call volume of patients that attend to the HSC from that catchment area, regardless of the nature of their injuries. At the risk of over-simplifying the matter the Court heard that the issues affecting the call volume at HSC, given the population in its catchment area, include issues related to poverty, homelessness, the easy physical access to the HSC, as well as specific challenges related to public education.

"Mechanism of Injury" as a Criterion for Transport to a Trauma Center

[132] The American College of Surgeons first published their data in the early 1990s along with the first trauma triage guidelines. Those trauma guidelines identified four criteria to assist those in the field in identifying those patients who should be transported to a trauma centre, being: 1) physiologic criteria; 2) anatomic criteria; 3) mechanism of injury and 4) co-morbidity diseases.

[133] There appears to have been an issue with respect to the inclusion of "mechanism of injury" (i.e. the manner in which a patient sustained injury such as ejection from a vehicle, auto versus pedestrian or bicycle accident, fall from a height) in the trauma triage protocol. There has been some dispute in the literature as to whether mechanism of injury is a good predictor in assessing the severity of injury from a triage protocol perspective. It is clear from his evidence that Dr. Grierson feels that the literature does not support the inclusion of mechanism of injury.

[134] Unfortunately Dr. Grierson's evidence regarding the history of the inclusion of "mechanism of injury" was somewhat unclear. When he initially testified, his evidence indicated that from the time the trauma triage protocol was established in 1997 "all the way through to this incident" mechanism of injury criteria was not included in the protocol. He went on to say that the members of the Medical Advisory Committee were keeping "an eye on the literature" but the view was that mechanism of injury continued to be viewed an unreliable factor in "illustrating the need to go to a trauma center." Dr. Grierson testified that concurrent with its absence was a trauma audit which was conducted for the years 2004-2005, assessing the Winnipeg system as compared to the guidelines set out by the American College of Surgeons. The conclusion after studying 15,813 trauma patients was that only 1.1% of those patients required secondary transfer to the HSC. That correlated to a 1.1% under-triage rate meaning that the Winnipeg system was operating significantly under the acceptable guidelines identified by the American College of Surgeons.

[135] Dr. Grierson's initial evidence regarding the inclusion of mechanism of injury is at odds with the documentary evidence (see Exhibit 4, Section VI documents I- 47 and I-47.2) and the testimony of the WFPS paramedics, both of which confirm that mechanism of injury was part of the trauma triage protocol from 1997 up to 2005, at which time the protocol was amended and it was removed. The WFPS members who testified all confirmed their understanding that it had been removed prior to Mr. Szabo's fall, and that they therefore could not consider the distance he fell in determining whether he should be transported to a trauma center.

[136] Dr. Grierson testified early in the proceedings, and was later re-called to clarify certain issues that arose from the evidence of other witnesses. While his initial evidence was that an audit was conducted using statistics from 2004 – 2005, upon being recalled he testified that he thought the audit had occurred in 2005- 2006. He indicated again that the under-triage rate was only 1.1% for a system functioning "without mechanism of injury in it." However, it remains unclear as to why steps would be taken to remove mechanism of injury from the trauma triage protocol. The appropriate statistic for consideration would have been the over-triage rate as it related to patients unnecessarily brought to the HSC as a result of the application of the mechanism of injury criterion. No such evidence was put before the Court, and no one testified that the HSC was being overwhelmed by patients who were transported to the trauma center due to the inclusion of mechanism of injury in the protocol. While the under-triage rate as reported for that period of time is commendable, it is noteworthy that it was an assessment of a relatively brief period, particularly as compared to the period of time that mechanism of injury was included in the protocol.

[137] There is no doubt that after this incident protocols were amended and mechanism of injury was again included. Exhibit 4, Section VI, document I-51 shows the addition of an amended mechanism of injury, increasing the height

requirement, originally a fall from greater than 15 feet, to a fall from a height greater than 20 feet.

[138] In fairness, the decision respecting mechanism of injury was one that did not rest with Dr. Grierson alone. He was a member of the Committee considering this issue, and as such Dr. Grierson testified that he relied heavily on the research in the area in recommending that mechanism of injury should not be included in the trauma triage protocol. A number of articles detailing the outcomes of studies in this area were filed with the Court. Dr. Grierson testified that the literature has been fairly consistent in terms of the findings supporting the exclusion of mechanism of injury. However, a review of the literature indicates that the issue is less clear than as indicated. Dr. Grierson provided a study, filed as Exhibit 20, entitled *"Guideline for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage*, dated January 23, 2009. The article comments at length on mechanism of injury as a criterion for transport to a trauma centre, recognizing the concerns of over- triaging when mechanism of injury was used as the sole indicator for transport to a trauma centre. In specifically addressing adults who fall > 20 feet, the article referenced a five month study of trauma team activations at a Level One trauma centre indicating that "9.4% of victims who fell > 20 feet (> 6.1 meter) suffered injuries serious enough to require ICU admission or immediate operating room interventions". The article recommends retaining the criteria fall of >20 feet for adults for indicating transport to the closest appropriate trauma centre for evaluation, stating:

> "In reaching its conclusion, the Panel noted that the fall height criterion for adults of >20 feet has been a component of the Decision Scheme since 1986 and is familiar to prehospital providers and their medical directors. In addition, the panel took note of the established relationship between increase in fall height and increase risk for head injury, death, ICU admission, and the need for operating room care. The Panel concluded that in the absence of new evidence that establishes a definitive height for this criterion or that supports changing or eliminating the criterion for falls >20 feet for adults (with 10 feet being the equivalent to one storey of a building), <u>this criterion should be retained, and adult patients who fall >20 feet should be transported to the closest appropriate trauma center for evaluation."</u> (emphasis added)

[139] After reviewing a variety of data, the panel recommended the retention of a variety of other criteria similar to those contained in the WFPS trauma triage protocol.

[140] A review of the article identifies specific concerns as related to pelvic fractures, which were identified as an ongoing concern and necessitating transport to a trauma centre. A 2002-2003 review of the New York State Trauma Registry data identified an 11.5% fatality rate for pelvic fracture. In commenting on these and other high risk injuries, the article states that:

> "…the panel took into consideration these high case-fatality rates, which place at risk vital systems, including cardio-pulmonary, musculoskeletal, vascular and neurologic systems and have the potential to require specialized surgical and intensive care. Rapid interventions might be needed to prevent morbidity and mortality. Because management of these injuries might require skills and resources not available at every hospital, triage of patients meeting these criteria to the highest level trauma centre improves the likelihood of prompt access to trauma surgeons, cardio-thoracic surgeons, neurosurgeons, vascular surgeons, and orthopaedic surgeons and to properly equipped ICUs and operating theatres. In addition, these injuries might require early and careful coordination between acute care and rehabilitation medicine, a process that might be more readily available at higher level trauma centres.

[141] The consistent concern identified in the literature, particularly as it relates to certain "high risk" injuries, is the availability of specialized services that are sometimes only accessible at a trauma center. These services can include both diagnostic services, such as CT scans, as well as specialized training and experience provided by the staff at a trauma center.

[142] In his expert report, Dr. Bruce MacLeod, acknowledged that the trauma triage criteria in Winnipeg have "met or exceeded acceptable North American standards". He did however express the following words of caution:

> It is not clear in the recommendations by the American College of Surgeons how the recommendations apply to what may be a different health care environment. One of the key investigation tools in trauma assessment is CT scanning of the body, which is not available 24 hours a day in several of the potential receiving sites in Winnipeg. It isn't clear in comparing to the American system whether their secondary sites have the same limitations. In Winnipeg if a patient is taken to one of these sites and is determined to need a CT scan, the process is to transfer the patient to one of the two sites capable of completing such an investigation. Many would argue that if there is suspicion of need for body CT after primary assessment of a patient at a community hospital, it is in the patient's best interest to transfer them immediately to a trauma centre for completion of the investigations rather than spending more time in the community hospital where other interventions may not be available if the patient rapidly deteriorates.

[143] Dr. MacLeod testified that the Calgary Trauma Triage Protocol (Exhibit 4, Section VI, document 152.1) included a mechanism of injury resulting from a fall of 6 meters/18 feet (later corrected to 5 meters/15 feet).

[144] From a practical perspective, some consideration needs to be given to the opinions of those who were working on the "front lines". Gwen Desautels, the triage nurse who first dealt with Mr. Szabo at the Grace General Hospital, expressed her surprise to the paramedics that Mr. Szabo had been brought to that facility given the mechanism of injury. The paramedics advised that the

transportation was pursuant to the directions of their supervisor. Nurse Desautels explained her concerns to the Court, commenting as follows:

> When paramedics treat and assess a patient, they have certain criteria and guidelines that they use in order to take them to the most appropriate hospital. Now, protocols have changed. I am not familiar with what those protocols are but from then, as they are now – so, first of all because he had fallen possibly 20 feet onto a cement concrete surface, I was concerned that he could be at risk for multiple internal injuries as well as a head injury. So, based on that mechanism, I was concerned that – I myself thought it might be more appropriate for them to go to the trauma centre now. Now, I don't make that call. That's the (inaudible) supervisor who makes that call.

[145] She went on to say:

> Well if someone has internal injuries, they can be better treated at Health Sciences because we are a community (inaudible) hospital. We have limited resources. So, you know, we have doctors that are sort of generalized in their practice, like emergency physicians. We don't have any special trauma surgery physicians. We don't have access to CTs – like especially at night. We can do head CTs we can do x-rays. But we don't have access to do internal CTs like abdominal CTs, CTs of you know limbs chest etc. So we didn't have the means to identify any of these potential injuries, nor did we have the sort of means to treat them if they were there. So that's why I felt you know he might have been better served if he was able to go to Health Sciences so that he could have had access to those diagnostic treatments if he required it.

[146] Nurse Desautels was clear that they did not have the authority to re-route Mr. Szabo to the HSC without a physician first assessing his condition.

[147] Dr. Terence Bergmann, the Grace General Hospital emergency room physician who treated Mr. Szabo also felt that the Grace Hospital was not the appropriate destination for Mr. Szabo, and that mechanism of injury should remain in the trauma triage protocol.

[148] Dr. Ricardo de Faria, Chief Medical Officer at Seven Oaks Hospital, and Acting Head of the WRHA Emergency Medical Program was involved in a review of the Grace General Hospital emergency room generally and the incident involving Mr. Szabo specifically. As part of his review, he made this comment in correspondence to hospital staff administrators:

> Regarding EMS triaging.
>
> I think that it is fair to add mechanism of injury to the transfer policy. There will still be people brought in from the street in similar condition and I strongly feel that the care provided should not be dependant on the time of arrival. If the present volume of CT's at the HSC is too high to allow an increase I think this CCO gives us an opportunity to recommend that they

> be available after hours at the community sites. What is to say that a patient falling from 14 ft as opposed to 15 ft would not need one? Although there was inadequate diagnostic evaluation of this patient, a more thorough assessment may have indicated a CT abdomen and this might have produced a diagnosis or had the patient's luck been better, a safe discharge.

[149] It is unclear from the evidence what role, if any, the level of diagnostic capabilities of the community hospitals, such as the Grace played in the decision to eliminate mechanism of injury from the transport protocol. The evidence does suggest that the diagnostic capacities, which were limited or non-existent for tests such as CT scan, have improved somewhat at the community hospitals. However, the concern remains that some patients who may require "a more thorough assessment" by a team trained in and familiar with trauma care would be denied timely access to that care without the inclusion of mechanism of injury in the trauma triage protocol.

[150] Dr. Grierson also testified that while mechanism of injury is presently in the trauma triage protocol, it may not remain in place. He did acknowledge that its recent inclusion does not seem to have added significantly to over-triage issues faced by the HSC emergency department.

[151] While the challenges facing the HSC emergency room are real, the evidence does not suggest that they are caused by the inclusion of "mechanism of injury" in the trauma triage protocol. The Court heard some evidence of the steps being taken by the HSC to reduce the amount of "walk in" patients, to create an alternative system within the emergency room to deal with less serious patients (minor treatment center). This is an area which is the subject of ongoing study by those in the medical professions and could be the subject of a lengthy inquiry on its own. Therefore, specific recommendations will not be forthcoming with respect to the operation of the emergency room at the HSC.

[152] Having said that, the American College of Surgeons identified an over-triage rate of 30-50% as being "unavoidable." It is critical to remember that efforts to reduce the flow of patients to the emergency room should not be so stringent so as to result in trauma patients being denied access to the care available at the trauma center. As such, a trauma center's emergency room has to be staffed accordingly so as to be able to accommodate for a degree of over-triaging. The suggestion that mechanism of injury may again be removed from the trauma triage protocol fails to take into account the lessons to be learned by the death of Mr. Szabo. It is for that reason that the Court will be recommending that "mechanism of injury" remain in the trauma triage protocol.

Accepting and Applying Coma Scale("GCS") Findings

[153] One of the first pieces of information obtained by the paramedics after Mr. Szabo's fall was his Glasgow Coma Scale ("GCS") score. The GCS scores were assessed again by Criti Care paramedics and by WFPS members, who

used them to assess whether Mr. Szabo fell within the portion of the trauma triage protocol dealing with "Unstable Vital Signs". The relevant provision of the Trauma Triage Protocol states as follows:

> *Blunt or Penetrating Trauma with Unstable Vital Signs*
>
> *Transport to Trauma Center if one of the following are met:*
>
> *……..*
>
> *A GCS less than or equal to 13 and evidence of head trauma.*

[154] Dr. Robert Grierson, confirmed that "anyone with a GCS of 13 or less" and an obvious head injury would be taken to the HSC. There is no issue regarding the inclusion of the GCS scores in the trauma triage protocol. It is consistent with the recommendations in Exhibit 20, the article previously referenced entitled *"Guideline for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage.* The question arose as to whether this criterion should continue to be limited to GCS scores obtained by WFPS members only, and what weight, if any, can be placed on the findings of other paramedics.

[155] Mr. Szabo's initial GCS score that was taken by the Cirit Care paramedics at 1928 hrs was 9/15. They noted that he had sustained a blow to the head resulting in laceration to the back of his head. Criti Care recorded a second GCS score taken at 1932 hrs of 10/15. However, by the time that the WFPS attended and assessed Mr. Szabo at 1937 hrs his GCS score had improved to 15/15. In consultation with Mr. Chuck Thomas, Medical Supervisor, and with the trauma triage protocol, WFPS members concluded that transport to the Grace General Hospital was appropriate. Mr. Thomas confirmed Mr. Szabo would have been categorized as a "stable trauma patient" and coded as a "green Charlie three" – green meaning stable, Charlie meaning conscious and three meaning trauma.

[156] Mr. Sommers expressed the view at the scene that the Grace General Hospital was not the best facility given the "constellation of injuries" and the low GCS score. Mr. Nienhuis also felt that Mr. Szabo met the trauma triage protocols, and I am satisfied that they both made their views known at the scene.

[157] It is clear that WFPS members were instructed to determine if a patient's condition was such that it met the trauma triage protocol based only on their own observations. While they were allowed to gather and consider information from other sources, those sources could not form the factual foundation for a decision to transport to a trauma center. As was the case in these circumstances, this extended to observations made by other paramedics. To that end, it is interesting to note that when WFPS paramedic Troy Reidy was providing the report of his

observations to his Medical Supervisor Charles Thomas, including the GCS scores, Mr. Thomas interjected and inquired whether the scores were a WFPS assessment or a Criti Care assessment. Mr. Nienhuis, a WFPS employee who happened to be working for Criti Care that night, advised Mr. Thomas that it was he who had taken the GCS scores. Mr. Nienhuis reiterated this because he acknowledged information received by the WFPS members from a third party is a "gray area" but he thought that given he was also a WFPS paramedic, his observations might be given more weight.

[158] In his evidence, Mr. Thomas was very clear that a GCS score of 9 would not play a role unless that assessment came from a WFPS employee. He clearly stated that if the GSC score of 9 had been obtained by a WFPS employee as opposed to a Criti Care employee, the patient would have been transferred to a trauma centre. He agreed with the suggestion that "the trend" of the patient is important, but that "the trend" would not affect the application of the transport protocol mandating transport to a trauma center. He explained that a GCS score of 9 means that the patient has had a "significant depressed level of consciousness" and that the patient could be suffering from an injury which might not fully manifest itself for a period of time but would require assessment and treatment at a trauma center. He testified that "that question has been asked a number of times by a lot of medical supervisors, and that's the understanding that a lot of us have with this protocol."

[159] Mr. Thomas also testified that there is "zero" discretion when it come to the application of the transport protocols. His understanding was that the protocols were developed by those who have information related to the system as a whole, and that it was appropriate for paramedics to second guess the protocols. He indicated that if he "deviated" from the protocol, the results could include anything from "a complaint" to a potentially negative outcome resulting from taking a patient to an emergency room too busy to provide the degree of initial assessment required. He agreed with the suggestion that the application of the protocols can only work where the "peripheral" hospitals have the experience and diagnostic capacity to assess a patient and determine if a secondary transport to a trauma center is warranted.

[160] Given his cross section of employment experience, Mr. Nienhuis' evidence in this regard is interesting. He was asked why he assessed Mr. Szabo as a red patient requiring transport to a trauma centre and provided a detailed basis for his conclusion. Mr. Nienhuis relied in part on the GCS but identified a number of other issues which in his mind contributed to the need to transport Mr. Szabo to a trauma centre. Mr. Nienhuis also confirmed that they are called upon to make judgment calls every day and that "if the patient necessarily doesn't fit 100% into that protocol, I would err on the side of caution and take him under that protocol". He stated that "if I was to look at a patient and see the multi system involvement from this trauma regardless whether he was GCS of 15, in all honesty I would have taken him to the Health Sciences Centre".

[161] Mr. Nienhuis was shown document G-12.4 which was the WFPS trauma triage protocol which was reportedly in place in August 2006. While Mr. Nienhuis expressed some confusion as to whether or not that had actually been distributed as of August 5, 2006, he did agree that if the trauma triage protocol in place at the time was the document shown to him, there was nothing on the protocol which would have mandated Mr. Szabo's transport to a trauma centre.

[162] It is interesting to note that Dr. Grierson testified that the trauma transport protocol criteria generally and the GCS assessment specifically are not usually conducted by the WFPS immediately after the incident but after the minutes needed for the paramedics to travel to the patient. When asked about the applicability of the triage protocol to the situation where a GCS score of 9 was noted by a WFPS paramedic to increase to 15 over time, Dr. Grierson's answer did not reflect the strict application of the trauma triage protocol that Mr. Thomas spoke of in his evidence:

> "Hypothetically I can't say what they would have done. Because if you look at the patient care report, the Glasgow Coma Scale rapidly improved to 15. I mean, you'd have to ask the individual paramedics what they would have done in the circumstances. If the Glasgow Coma Scale was nine when they evaluated the patient, then the patient would have been transported to the trauma triage, absolutely that's the protocol."

[163] Dr. Grierson and others emphasized the "trend" in Mr. Szabo's GCS scores, and emphasized that an initial score is not usually obtained immediately after an accident, but after the time that it would take WFPS members to attend to the scene, often within 4 minutes of the call. While Mr. Szabo's first GCS score of 9 was obtained at 1928 hrs, a second score of 10 was recorded at 1932 hrs. Presumably, if the WFPS members had attended within 4 minutes, Mr. Szabo's GCS score still would have warranted transport to a trauma center.

[164] Mr. Thomas explained that they would not accept the findings of a Criti Care employee as he does not know anything about their training. He confirmed that information from other sources is important for their consideration but not for the purposes of the protocol and he indicated that there was no discretion to do anything but follow the trauma triage protocol. This may be the case in general, although it is somewhat surprising that it was so strictly applied in this instance, given that Mr. Thomas knew that Mr. Nienhuis also worked as a WFPS paramedic. The fact that Mr. Nienhuis happened to be wearing a Criti Care uniform when he assessed Mr. Szabo's GSC scores should not have rendered the results he obtained unreliable.

[165] There was some evidence as to how paramedic and emergency room systems function elsewhere. In Calgary, Alberta, (and in many other jurisdictions) paramedics have access to an emergency room physician to discuss cases which may be considered borderline for transport purposes. These "online" systems operate without the use of Medical Supervisors in the field. Winnipeg's system was described as being "offline" and relied on the Medical Supervisors to

be available to attend the scene and make an assessment of the situation from that vantage point and using the triage protocols.

[166] The central disadvantage to the present "offline" system in Winnipeg relates to the lack of discretion afforded the Medical Supervisors. Given that they are only allowed to strictly apply the triage protocols as written, they have no one with whom to consult when unusual or borderline cases, such as was Mr. Szabo's, present in the field. Conversely, the advantage of an "online" system appears to be that an Emergency room physician would be in a position to authorize transport to a trauma center in a case that was unusual but did not necessarily fit within the four corners of the triage protocol. It is for that reason that some consideration should be given to the present system to determine where best the inclusion of some discretion should lie.

[167] The evidence established that Mr. Szabo sustained significant injuries from falling a distance of less than 12 feet. If one were to factor in the distance that he initially fell, along with the blow caused when he struck his head on the guard rail, the strict measurement requirements of 20 feet might have been met. All paramedics agreed that it was not necessary to exactly measure the distance of a fall, and most estimated the distance to be between 15-20 feet. A degree of discretion, both in estimating distances, and in assessing the patient, is an important function which should be conveyed upon WFPS paramedics and/or their medical supervisor. Exhibit 20, entitled *"Guideline for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage* commented upon the need to import some discretion to the attending paramedics. The article recommended the addition of a transport criterion under the heading "EMS PROVIDER JUDGMENT":

> "The Panel recognized the impossibility of predicting all possible special circumstances that might exist at an injury scene. EMS providers make triage decisions on a routine basis and have the expertise and experience needed to make judgments regarding atypical situations. Depending on the situation, capabilities of the EMS and trauma systems, and local policies, EMS providers may decide independently or in association with online medical direction to transport a patient not otherwise meeting the criteria in Steps One through Four to a trauma center."

[168] The comments in the article are consistent with those made by Dr. Bruce MacLeod, Medical Director of Clinical Safety Evaluation Unit, Health Outcomes Portfolio, Calgary Regional Health as well as the Medical Director of the Southern Alberta Referral Coordinator Centre. He is a staff member of the Calgary Health Regional Department of Emergency Medicine practicing at the Foothills Hospital and the Peter Lougheed Hospital. In the expert report filed as Exhibit 25 he stated:

> "There does not appear to be any need to readdress the trauma destination protocol, but there may be a need to provide more clarity of its details to those interpreting the protocol. There may be a need to revisit

> whether a process enabling deviation to a higher level of care under specific circumstances should exist, perhaps involving consultation with a physician. A limitation to the reliance on physiologic criteria is that patients in early stages of shock can sometimes compensate maintaining normal vital signs for a period of time, then deteriorate very rapidly when they exceed their ability to compensate. Some experienced providers have learned to recognize signs of this compensation which cannot be measured with tools available in the field."

[169] Dr. Grierson noted that in approximately 95% of cases, the appropriate application of the triage protocols will be obvious to the attending paramedics. Mr. Szabo's circumstance, including his mechanism of injury and his presentation afterwards, placed him in that 5% area of uncertainty. To that end, it is interesting to note that the Exhibit 20 article wisely ends with the following words of caution:

> "WHEN IN DOUBT"
>
> "EMS providers are involved with triage decisions on a routine basis. They have the field experience needed to make specific judgments regarding care in their individual locales. Accordingly, any gaps in these criteria should not be construed as prohibiting transport of any patient to a trauma center. Injury is complex and often does not lend itself to stopwise, dichotomous checklists. The last line of the 2006 Decision Scheme, essentially unchanged from previous versions, is "When in doubt, transport to trauma center."

[170] The addition of either the "EMS Provider Judgement" or the "When in Doubt" criteria would have given the WFPS paramedics the flexibility to consider transport to the HSC as opposed to the Grace General Hospital. For example, such flexibility may have allowed Medical Supervisor Charles Thomas to consider the GCS scores obtained from Mr. Nienhuis, who happened to be working in the capacity of a Criti Care employee as opposed to a WFPS employee. It is clear that Mr. Thomas was working under the understanding that he had "zero" discretion to do anything but apply the triage protocols. This strict approach needs to change.

[171] While it cannot be said with absolute certainty that such a transport would have prevented Mr. Szabo's ultimate demise, it would have afforded him more timely access to specialized diagnostic assessments, such as a CT scan, and to those specialists trained to read and report on x-rays and CT scans. It also would have placed his care in the hands of those who assess trauma patients on a more regular basis. Given that the mandate of an Inquest Judge is too make recommendations that "would reduce the likelihood of death in similar circumstances", the following is a list of recommendations that address issues which likely contributed to Mr. Szabo's unfortunate demise.

Recommendations directed to WFPS and the WRHA as it relates to paramedic services and triage protocols :

1. WRHA/WFPS retain “mechanism of injury” in the trauma triage protocol, including the provision which requires transport to a trauma center if there is a fall from a height 20 feet or more;

2. Instruct WFPS paramedics that they are allowed to rely upon the medical findings of other paramedic services in assessing the applicability of the trauma triage and other triage protocols;

3. WFPS/WRHA should accept and disseminate to Medical Supervisors, Platoon Chiefs and any other WFPS staff they feel is appropriate information provided by private paramedic companies about the training of the paramedics retained by those private paramedic companies;

4. At the request of any private paramedic company, WFPS/WRHA should provide their transport protocols/triage protocols to those private paramedic companies;

5. WFPS/WRHA work together with Critic Care or any other private paramedic company to establish guidelines for patient hand-over and transfer of care;

6. WRHA provide the fax machine numbers for all Winnipeg hospital emergency rooms to any private paramedic company so as to ensure that private paramedic reports are forwarded to the proper number;

7. WRHA/WFPS examine whether it is feasible to permit private paramedic companies access to the current Electronic Patient Care Reporting (EPCR) system presently in use

8. WFPS/WRHA should amend the trauma triage protocol to allow for medical supervisors and/or paramedics to have some discretion when assessing the application of the trauma triage and other triage protocols under the heading “EMS PROVIDER JUDGMENT”;

9. WFPS/WRHA should amend the trauma triage protocol to add- “when in doubt” provision which would authorize paramedics to transport a patient to the trauma center “when in doubt”;

10. If the WFPS/WRHA should choose not to allow paramedics or medical supervisors in the field to have any discretion when

> applying the triage protocols, then an "online" medical control system should be introduced, allowing paramedics and/or medical supervisors access to an emergency room physician for consultation purposes.

[172] The Chief Medical Examiner identified a third issue to be addressed during the Inquest, stating as follows

> "To determine what, if anything, can be done to prevent similar deaths from occurring in the future with regard to, but not limited to, the following:
>
> (c) management of the patient at the Grace General Hospital.

Facts related to Initial Presentation and the Nursing Assessment at the Grace General Hospital

[173] Upon arriving by ambulance at the Grace General Hospital, Mr. Szabo was triaged by nurse Gwen Desautels, who recorded the information she received from the paramedics on the Grace General Hospital Triage document filed as Exhibit 4, Section VI, Document I-6. With the assistance of the paramedics, she took and recorded Mr. Szabo's vital signs. She observed that Mr. Szabo had a fractured clavicle and had complained of some pain "to his right flank". She was told that his GCS scores were nine and 15, noting that he had been knocked out when he "fell forward over railing while @ stadium falling 20 feet ? landing on head." She also noted that he had a large cut on the back of his head which had been dressed. She was advised by Mr. Szabo that he had consumed six beers. She testified that the computer formulated a Canadian Triage Acuity Score ("CTAS ") score of 3 but she overwrote that score and entered a score of 2 or "emergent", requiring a physician's attention within 15 minutes. She based this score on Mr. Szabo's injuries and on the information provided about the mechanism of injury. Mr. Szabo was admitted to the Grace General Hospital at 2012 hrs on August 4, 2006. The following notation was entered at the top of Exhibit 4, Section VI, Document I-6: "**Major Trauma: Blunt High Force".**

[174] Mr. Szabo was turned over to nurses Lora di Bernardo and Holly Johnson for further assessment and treatment. Nurse Desautels was concerned about the relative lack of experience of Nurse di Bernado and Nurse Johnson, particularly given the nature of the injuries sustained by Mr. Szabo. She instructed that they should keep an eye on him, to get his blood work completed and to ensure that a doctor saw him in a timely way.

[175] The evening was described by all as being exceptionally busy. Nurse Desautel recalled that there were a high number of patients, but more significantly a relatively high number of patients with an "acuity (that) was very high". Both Holly Johnson and Lora di Bernardo confirmed that the emergency

room was very busy and that they were called upon to deal with a large volume of patients, some of whom were seriously ill. Subsequent to the evening of August 4, nursing staff filled out an “Unsafe Work” form documenting their concerns about the patient to staff ratio. Lora di Bernardo described that for a period of time she was responsible for seven acute patients.

[176] Both Holly Johnson and Lora di Bernardo were provided some basic information about Mr. Szabo by Gwen Desautels and it appears that they were made aware of the potential seriousness of Mr. Szabo’s injuries. Nurse Johnson confirmed that she had been told that Mr. Szabo had fallen “about 20 feet” at the Bomber game but she understood that he had fallen from the upper to the lower deck. She also indicated that Nurse Desautels made the comment “I don’t know why he was brought to the Grace”. She believed that she was aware of his CTAS score of 2. At the time Lora di Bernardo was less familiar with the CTAS scoring system or the significance of the CTAS score of 2 assigned to Mr. Szabo. They were not provided with the level of detail respecting Mr. Szabo’s condition at the scene that was communicated to the triage nurse by the paramedics.

[177] Both nurses gave evidence as to what documentation they recall having seen prior to commencing their assessment of Mr. Szabo. Lora di Bernardo recalled that Nurse Johnson “had the chart” but was unable to say if it included the Adult Triage form (Exhibit 4, Section VI, Document I-6) completed by Nurse Desautels. She testified that she did not see Document I-6. For her part Nurse Johnson did not recall having had or seen the chart, and did not recall seeing the Adult Triage form (Document I-6).This means that neither nurse reviewed the document which included the details of the accident, information from the paramedics about the initial assessment and vital signs taken upon admission. Neither Lora di Bernardo nor Holly Johnson saw the ambulance reports completed by Criti Care or by the WFPS. Neither nurse had any conversations with the paramedics.

[178] Mr. Szabo was still on the backboard when Nurses Johnson and di Bernardo began their assessment and began to fill out Document I-7, the “Emergency Nursing Assessment”. The document indicates that Mr. Szabo’s vital signs were taken at 2030 hrs, and while Holly Johnson testified that 2030 “is likely the time I was doing the assessment” she also indicated that there could be a variance of up to half an hour. Nurse Johnson testified that she was present for the first part of the assessment but was called away to attend to another acute patient in respiratory distress, leaving Lora di Bernardo to complete the assessment. Lora di Bernardo recalls Holly Johnson being present for the entire assessment.

[179] Holly Johnson was asked about the portions of Document I-7 that she completed. She testified that, to the best of her recollection, the patient informed her that he had consumed 8 drinks, which is what she recorded. This is not consistent with the drinking history provided by Mr. Szabo to the triage nurse. Nurse Johnson also testified that, to the best of her recollection, she was told by

Mr. Szabo that he fell when he lifted up his right arm and was “reaching over to yell something onto the field.” There was no mention of a fall on the stairs.

[180] According to Exhibit 4, Section VI Document I-67.2, a document prepared by Nurse Holly Jonson approximately six days after the incident, she indicated that Nurse di Bernardo conducted a bodily examination of Mr. Szabo including “pressing down on his hips” although that portion of the examination is not recorded in their initial assessment.

[181] Neither nurse noted that Mr. Szabo had been incontinent of feces. Both agree that this would have been important information as it implied a loss of consciousness and a related loss of bowel control. Some counsel questioned whether the evidence established that Mr. Szabo had been incontinent. I am satisfied from a review of the evidence that Mr. Szabo had been incontinent of feces and that fact was not noted by the staff at the Grace General Hospital. In her evidence Mrs. Szabo testified that she remembers her husband had “messed himself” and “the nurse was quite annoyed with him because he had done that”. It was never determined which nurse Mrs. Szabo was referencing as no one acknowledged this exchange.

[182] Neither Holly Johnson nor Lora di Bernardo was aware that Mr. Szabo had lost consciousness despite the fact that that information was recorded in the ambulance reports of both Criti Care and the WFPS, as well as Document I-6, the Adult Triage Assessment document completed by nurse Gwen Desautels. Both nurses agreed that the loss of consciousness as being an important fact to take into account in assessing a patient. Neither Mrs. Szabo nor Randy Gustafson, who were both at the hospital, were asked to provide any information about Mr. Szabo’s fall, the injuries he sustained, or any of his medical background.

[183] As part of her initial assessment, Lora di Bernardo noted that Mr. Szabo had a laceration to the back of his head, which she cleaned with normal saline solution at approximately 9:10 pm (21:10 hrs). She testified that after completing her assessment, she took the chart to Dr. Bergmann, who was given some information about Mr. Szabo by Gwen Desautels. Dr. Bergmann testified that he did not have the chart when he first saw Mr. Szabo. His recollection was that when he first saw Mr. Szabo, Lora di Bernardo was still in the process of completing her assessment.

Primary Assessment

[184] Ms Rosemarie Enokson, a Registered Nurse in the province of Alberta and a clinical instructor at the Peter Loughheed Hospital Emergency Department provided an expert report assessing the various aspects of the standard of nursing care provided to Mr. Szabo at the Grace General Hospital. In her written report and in her evidence she commented favourably on the “primary” assessment completed by nurse Gwen Desautels. Ms. Enokson noted that

"given Mr. Szabo's significant fall, reported alcohol consumption, initial loss of consciousness, an actively bleeding scalp laceration, a deformed clavicle and flank pain the triage nurse appropriately identified him as a CTAS 2 patient with high risk for deterioration and expedited transfer into the emergency department".

[185] Ms. Enokson did express concerns about certain procedures in place at the Grace General Hospital Emergency. While she agrees that Mr. Szabo's primary assessment "indicated no significant or immediate life threatening injuries on arrival", she went on to state that "regardless of his presentation at the time of the admission to the emergency it is recommended that all trauma patients:

- Receive 100% oxygen at a high flow until all injuries have been identified and assessed;
- Have two IVs established in the event that rapid infusion of blood or fluids is required;
- Have laboratory tests of blood types and screen, complete blood count chemistry (commonly the electrolyte sodium, potassium, chloride, glucose and creatinine and drug and alcohol analysis)."

Secondary Assessments and Documentation Issues

[186] Ms. Enokson noted that special care and attention is required of an emergency room nursing staff when assessing trauma patients. Her comments about the potentially unstable nature of a patient who has experienced a significant trauma are consistent with those of others who testified. In her report she made the following observation:

> "Trauma patients often have multiple injuries, some of which are obvious and others which declare themselves over time The initial priority for the nurse caring for the trauma patient is to identify and intervene on those injuries that may be, or may become, life threatening. Then the patient must be thoroughly assessed to determine all injuries. Following completion of the full assessment a plan of care is developed identifying the requirement for patient monitoring and reassessment until the patient is either discharged or transferred from the Emergency Department. (Emergency Nursing Association, 2007)".

[187] Bearing these requirements in mind, Ms. Enokson outlined a number of concerns about the secondary assessment conducted by Nurses di Bernardo and Johnson. They can be summarized as follows:

- The lack of documentation as to the extent of the examination of Mr. Szabo's head, chest, abdomen, pelvis and limbs for pain or abnormalities. While this is commented upon by Nurse Johnson in Document I-67.2 (a

document she completed approximately 6 days after the incident), it is not recorded in the medical record;

- There is no indication that Nurse Johnson and Nurse di Bernardo reported that he was incontinent of stool which is an important assessment of neurological status and risk for spinal cord injury;

- Under urinary assessment the words “normally voids well” were documented. Concern was expressed that Mr. Szabo had not been examined to determine if blood was coming from his penis. Rosemarie Enokson noted that “these are important findings in the assessment of Mr. Szabo’s risk for a spinal cord, pelvic, kidney or bladder injury”;

- Under the muscular-skeletal system there was no notation of the clavicle deformity or the abrasions on his left elbow, hip and knee. A complete trauma assessment must include an examination of all limbs, palpitations or deformities and an assessment of all limbs including colour, warmth, sensation, movement and assessing the presence of pulses; and

- The reproductive, endocrine, ear, nose and throat sections were not assessed and such findings are important for trauma patients to determine their neurological status and can assist in determining the presence of a head injury.

[188] As was noted by a number of witnesses, a trauma patient is at risk of rapid deterioration from injuries which do not immediately manifest themselves. It is extremely important that the primary and secondary assessments establish and record a reliable “base line” against which later assessments can be measured. It appears clear that the secondary assessment of Mr. Szabo upon his initial admission to Grace General Hospital Emergency fell short of what is expected of emergency room nursing staff.

[189] In fairness to the nursing staff, there is no question that there were many patients in the emergency room with acute care needs. Some staff described the evening as “the worst night in five years.” Holly Johnson described the hour after leaving Mr. Szabo to Lora di Bernardo as “a blur.” The evidence indicates that that she was providing one-on-one care to a patient who was intubated. Nurse Johnson also described that there were “2 ambers that came in in the next little while as well as perhaps 2 other patients that needed monitored beds”.

[190] It was in the context of the evening’s workload and the care that was provided to Mr. Szabo that the issue of emergency room staffing was discussed. As well, there was discussion regarding the experience level of the two nurses assigned to care for Mr. Szabo. Both of those issues will be dealt with later in this report.

[191] Whatever the case load and whatever the working conditions, however, emergency room nursing staff must ensure that they adequately assess patients and accurately document their observations.

Ambulance Reports and Paramedic Reports to Nursing Staff

[192] At the scene, the Criti Care paramedics completed an ambulance report which was described as being largely for the benefit of the company. Those documents were filed as Exhibit 4, Section VI Documents I-1 and I-1.1 and appear to have been completed at 21:05 hours. While the report contained significant and valuable information, it unfortunately did not make its way to the staff at the Grace General Hospital. There were a variety of reasons for this. The Court heard that on occasion the Criti Care paramedics would provide a copy of their report to the attending WFPS members, to be handed over to the destination hospital. Unfortunately, in this instance the WFPS members had to depart prior to the completion of the report

[193] Two points are of note in this regard. First, there is no suggestion that the original observations of the Criti Care employees were disregarded. In fact, many of those observations were repeated by the WFPS members in their ambulance report. Secondly, at the time there was some effort being made by Criti Care to fax their report to the destination hospital, although that does not seem to have occurred in this case.

[194] The issue with respect to ambulance reports and the efforts to make them accessible to emergency room nurses and doctors on a timely basis was one that extended to WFPS reports as well. Paramedics often work under strict time lines, and circumstances often prevent the completion of an ambulance report prior to the patient being transferred over to hospital staff. That was the situation with Mr. Szabo, where the ambulance report was finalized shortly after he was transferred to the emergency room staff.

[195] Some steps have been taken to improve the situation. Considerable improvements in technology (the introduction of Electronic Patient Care Reporting (“EPCR”) system) now allow for WFPS reports to be provided to the destination hospital in a timely way. Vital signs and other pertinent information is now entered on a touch screen laptop computer and forwarded to the hospital. A gap remains, however, with respect to reports completed by private ambulance companies. Given the risk of miscommunication with every repetition of information, it only makes sense that every effort should be made to make the reports completed by those first on the scene available to the emergency room staff.

[196] The time at which care is transferred from paramedics to emergency room staff is an important opportunity for communication. Dr. Bruce MacLeod provided expert evidence on a number of areas involving emergency room care. Dr. MacLeod is the Medical Director of Clinical Safety Evaluation Unit, Health

Outcomes Portfolio, Calgary Regional Health as well as the Medical Director of the Southern Alberta Referral Coordinator Centre. He is a staff member of the Calgary Health Regional Department of Emergency Medicine practicing at the Foothills Hospital and the Peter Lougheed Hospital. In the expert report he prepared (Exhibit 25), Dr. MacLeod noted that at the Grace General Hospital the paramedics

> "did not have a formal conversation with (the bedside nurse) to share the complete story of his accident, what was observed at the scene, the physical findings determined at the scene, the progression of the physical findings, and their general concern. The bedside nurse was notified by the triage nurse with some of the story being shared in that conversation. . . . The physician was requested to assess Mr. Szabo by the bedside nurse. It is unclear how much of the report presented to the triage nurse by the paramedics was actually relayed to the physician in that conversation with the bedside nurse although he maintains he was not made aware of the fall. It is unclear whether the nursing documentation following her initial assessment of Mr. Szabo had been completed at the time Dr. Bergmann initially assessed Mr. Szabo."

[197] In his evidence, Dr. MacLeod concurred that it would be optimal for a paramedic to report directly to the bedside nurse, as is presently the case in Calgary.

[198] While a direct report to the bedside nurse and the physician is effectively the case with patients assessed as a CTAS 1 (urgent), it was not the case with any other patients. The question is whether such reporting should be mandated for patients with a CTAS score of 2 or lower. While Dr. MacLeod acknowledged that he worked within a larger system with challenges of its own, he did indicate that it is optimal for the emergency room physician to hear directly from the paramedic so as to minimize the number of transfers of care and to avoid any associated loss of information.

[199] The reality of off-load delays, while not the central focus of this Inquest, cannot be ignored. While it would be optimal for an emergency room physician to hear from a paramedic in all cases, it is recognized that "in the real world" that would not always be possible. However, it seems that those patients assessed a CTAS 2 are suffering from injuries which are sufficiently serious so as to warrant more specialized consideration.

[200] In the case involving Mr. Szabo there was a serious breakdown in the sharing of information between the paramedics, the triage nurse, the bedside nurse and the emergency room physician. The failure of the emergency room physician to appreciate the mechanism of injury and all of the observations and assessments made by the paramedics at the scene set in motion a course of treatment which Dr. Bergmann later said would have been different if he had been made aware of all the facts. This may have been avoided if Dr. Bergmann and the nurses had an opportunity to speak directly to the paramedics. At the

very least, this process would minimize the chance that important information would be misunderstood (as was the case here with the mechanism of injury) or not communicated at all (many of the assessments at the scene, such as loss of consciousness and incontinence).

Facts regarding Initial Physician Care

[201] Dr. Bergmann testified as to his recollection of his initial dealings with Mr. Szabo. He recalled being approached by the admitting nurse (Lora di Bernardo) who requested that he see Mr. Szabo, and who commented that Mr. Szabo "he looks terrible" or "he looks like crap". He testified that he immediately attended and began his examination while the nurses were still doing their secondary assessment. Contrary to Gwen Desautels' recollection, Dr. Bergmann testified that he was not present when Gwen was providing the report to Nurses Johnson and di Bernardo, stating "I never spoke with Gwen about Mr. Szabo". Dr. Bergmann recalled receiving information about the mechanism of injury from Lora di Bernardo, saying "what I heard Lora tell me, was that he had fallen down 20 stairs at the stadium", after which he spoke to Mr. Szabo about his fall down the stairs. Dr. Bergmann was unaware that Mr. Szabo had a "free fall" of a distance estimated to be 15-20 feet until receiving clarification the next day. Dr. Bergmann stated that when he attended to Mr. Szabo's bedside, the chart had not yet been prepared and therefore he had no documentation outlining the background of Mr. Szabo's fall and injuries. After completing the exam Dr. Bergmann testified that he returned and sutured Mr. Szabo's head wound.

[202] Dr. Bergmann's initial observations were recorded on Exhibit 4, Section VI, Document I-3 after he completed his assessment and had returned to the stretcher bay south desk. At that time he requested a urinalysis, a CT scan and x-rays of the C spine and L spine. His recollection was that it was at that initial time that he wrote up an order for morphine and gravol. He estimates his initial examination took 10 to 15 minutes including the time spent suturing the laceration. He also recalls that Nurse di Bernardo was not present when he sutured the laceration as she was busy attending to other duties.

[203] Aspects of Dr. Bergmann's version of the events are not consistent with the recollection of Lora di Bernardo, the most significant of which is the timing of Dr. Bergmann's suturing of the laceration. Lora di Bernardo recalled that procedure taking place much later in the evening, concurrent with a request by her to Dr. Bergmann to check on Mr. Szabo's status.

[204] Document I-3 contains Dr. Bergmann's initial observations. The time that those observations were made is not noted. The typed portion of the form indicate and "Entrance Complaint" of "Blunt High Force". Dr. Bergmann completed the box marked "Diagnosis" with the following entries:" Intoxication; Head Injury; concussion; scalp lac'n". Under the portion entitled "History & Physical" are the following entries:

> 52 male

fell down stairs at stadium

KOed

pain in lower R back

ETOH

O/E lac'n to R parietal

neck non-tender

chest non-tender

pelvis " "

extr nil acute MSK

abr to L elbow, hip knee.

[205] He did not recall Mr. Szabo being "incontinent of feces" and claims that to be a fact he would recall. Dr. Bergmann testified that Mr. Szabo responded appropriately when he was suturing his scalp and that he was not showing signs of someone who was overly intoxicated. In his view he was conversing normally and appropriately.

[206] During the initial examination Dr. Bergmann described removing Mr. Szabo from the C spine protective blocks and removing him from the backboard. Dr. Bergman testified that Mr. Szabo was "knocked out and he took a side whack to the head that would create enough of a snapping motion that one could consider the possibility of a bone injury" and therefore ordered C spine x-rays. Despite the fact that nursing staff were preparing to assist Dr. Bergmann in "log rolling" Mr. Szabo from the spinal board, Dr. Bergmann proceeded without assistance and without employing the "log roll" method.

Analysis of Dr. Bergmann's Initial Assessment

[207] A number of concerns were raised with respect to the initial assessment completed by Dr. Bergmann. It is of some assistance to begin by comparing the injuries noted by Dr. Bergmann in his initial assessment with the injuries Mr. Szabo was ultimately diagnosed as having sustained, recognizing at the outset that some of those injuries were noted by Dr. Bergmann, while others could not have been detected simply through his initial assessment and would have required x-rays or other testing to reveal. A review of Mr. Szabo's medical records and autopsy report indicates that he sustained the following injuries:

Head:

- Concussion; no skull fracture
- Lacerations/hematoma on the back of the head, towards the right side described as both right occipital and right parietal; laceration measuring 2 cm. x 0.6 cm.;
- Lacerated wound to upper end of left pinna (external ear);
- Abrasion on upper surface and back upper half of right pinna;
- Subarachnoid hemorrhage, described as patchy, over the left posterior frontal and parietal surfaces with no obvious contusion.

Neck:

- X-rays show an undisplaced fracture of C2 the junction of the body and pedicle;
- Follow up CT scan showed fracture across the C2 vertebra, described as reminiscent of a (hangman's fracture);
- Undisplaced fracture to the right side structures of C6 or C7 vertebra.

Trunk:

- Comminuted right mid shaft clavicle fracture;
- Multiple right rib fractures along anterolateral border for ribs 1-5 and posteriorly for ribs 1-3;
- Undisplaced hairline fracture of ribs 1 and 2 at the costotransverse junction (joints between the ribs and the vertebra;
- Right hemopneumothorax;
- Pulmonary edema and hemorrhage to both lungs;
- Laceration to right lung related to rib fractures;
- Subcapsular hemorrhage of the superior surface of the left lobe of the liver;
- Extensive peri-renal hemorrhage;
- Multiple abrasions and contusions to the back of the right shoulder area.

Pelvis:

- Comminuted fracture of the right iliac crest, described as an impact fracture with mild inferolateral displacement of the peripheral fragment;
- Contusions on the right iliac crest area towards the back;
- Extensive retroperitoneal hematoma centred around the right iliac crest;
- Complaints of bilateral pelvic and low back pain;
- Minor hemorrhages to both testicles;
- Upper and lower extremities, abrasions to the back of the left elbow, outer aspect of the left buttock area, outer aspect of the left knee joint and outer aspect of the left ankle;
- Contusions surrounding abrasions to the left elbow, left buttock and left ankle.

[208] There were essentially three central issues related to the examination conducted by Dr. Bergmann, and they can be summarized as follows:

a) whether the initial examination was sufficiently thorough;

b) whether all of the procedures purported to have been completed by Dr. Bergmann were completed at that time; and

c) whether Dr. Bergmann's assessment of the patient was negatively influenced by the fact that Mr. Szabo had been drinking.

Was the Examination Sufficiently Thorough?

[209] As noted earlier, there were a number of injuries that were noted by Dr. Bergmann. Others, however, were not. Some of the difficulty was attributed to the fact that Mr. Szabo did not report pain in a way that would have been expected, given the nature of the injuries he sustained. All witnesses were consistent in their observation that Mr. Szabo did not complain or report pain when being examined. There are several possible explanations for this. One possible reason could relate to his personality and to the fact that, as Mr. Gustafson noted, he was "embarrassed" by the circumstances. Another possible explanation could be his highly elevated blood alcohol level, which a number of witnesses confirmed could have "masked" the pain he was experiencing. These reasons, however, are not exceptional and the Court heard evidence from those who work in an emergency department that patients respond to injury and pain in a wide variety of ways, particularly when alcohol is involved. One would have thought that an emergency room physician with Dr. Bergmann's years of experience would have been alive to this reality.

[210] It is truly unfortunate that neither Dr. Bergmann nor the attending nurses spoke to Mrs. Szabo or Mr. Gustafson, who could have provided further information about the incident and about Mr. Szabo's condition. The fact that no chart was available to Dr. Bergmann should have emphasized the need for him to conduct a thorough and detailed examination and to ensure that accurate information was obtained. Dr. de Faria confirmed that this is the expectation and that when information is not available from a chart, it should be obtained from collaterals including family members.

[211] Concerns about the sufficiency of the initial examination are heightened by the discrepancies between the evidence of Dr. Bergmann and Mrs. Szabo. Not only did Dr. Bergmann testify that Mr. Szabo made no complaints of pain, he testified that he recalled Mr. Szabo rolling onto his right side (and therefore on to the side with the broken clavicle), facing him while on the stretcher. His evidence and the evidence of some of the other nursing staff is not consistent with that of Mrs. Szabo who said that her husband was in discomfort and was moaning throughout the evening. This discrepancy may be due to the limited amount of time that the medical staff actually spent with Mr. Szabo. However, I again note

that it was unfortunate that Mrs. Szabo's input was not sought at the initial examination or as the evening progressed.

[212] The fact that Dr. Bergmann did not note the fact that Mr. Szabo was fecally incontinent, a fact noted by the paramedics, is of come concern. This brings into question whether the examination of the abdomen and hip area could not have been as thorough as he described it to be. And while the paramedics did not note any "crepitance" when examining Mr. Szabo at the stadium, Dr Erik Smith, the emergency room physician who took over care of Mr. Szabo at the end of Dr. Bergmann's shift, did note a crepitance of the pelvis upon palpation.

[213] Dr. Bergmann testified that he ordered a urinalysis, the purpose being to determine if there were any renal contusions or any renal fracture as a result of falling down the stairs. He confirmed that had not received the urinalysis report back by the end of his shift. Despite acknowledging that a urinalysis was one of the "toughest tests to get in an emergency department" because it required coordination of patient and staff, he simply made a notation on the chart and did not advise the nurses that this test needed to be done. His evidence generally respecting the purpose for this test was somewhat confusing. While at one point Dr. Bergmann testified that he did not consider the urinalysis to be a "priority" test, he went on to say that it was a test that "could make a difference". He qualified this by saying "there can be a lot of tests you order that aren't going to happen on the day you order them". He described the urinalysis as "just a test you order". However, had the test results noted blood in the urine, Dr. Bergmann testified that he would have responded by requesting a kidney x-ray and conducting a follow-up urinalysis, and would have required Mr. Szabo to remain in the hospital until those tests were complete. He then stated that it was a test that they were "waiting for" when he prepared Mr. Szabo for discharge and signed him to over to Dr. Smith, despite the fact that a sample had not even been taken at that point.

[214] There was considerable evidence as to the manner in which Dr. Bergmann removed Mr. Szabo from the spinal board. Several witnesses testified that they were preparing to assist Dr. Bergmann in a procedure described as a "log roll", utilized to maintain spinal immobility. At the scene of the accident, paramedics had used the "log roll" method to place Mr. Szabo on the backboard, as it is recognized to be a standard approach to the movement of trauma patients who have a potential spinal injury. In his expert report, Dr. MacLeod made the following observations:

> "…it is standard emergency physician practice to "log roll" a patient and assess the back including the spine, the posterior thorax and the posterior pelvis on the initial assessment to determine which x-rays should be ordered. Not examining the back prior to x-rays or removal from spinal precautions without a formal examination of the back which includes a "log roll" done by several persons is not standard emergency department practice, and may have resulted in a missed opportunity to suspect and diagnose the pelvic fracture."

[215] When asked to comment on this paragraph, Dr. MacLeod testified that its not ”impossible” to have a situation where a patient could be removed from the backboard without using a “log roll”, but he confirmed that “it’s not standard…way we do things.”

[216] In his evidence, Dr. Bergmann was somewhat dismissive of the fact that Mr. Szabo had been brought in on a back board, describing it as “a default method of transportation”. He expressed the view that roughly half of the patients brought in to the emergency on a back board are transported that way unnecessarily. It is noteworthy that there was no suggestion made to the paramedics regarding this assertion and therefore no evidence from them supporting this suggestion.

[217] In emphasizing his desire to remove the patient from board in a timely way, Dr. Bergmann was somewhat flippant:

> A. “…I asked him if he had pain in his neck. I mean, ideally, the first thing you want to do is get him off the board, boards are painful.
>
> Q. Right
>
> A. In the middle ages they had the rack, in the 21st century, we have backboards……

[218] In the context of discussing the failure to employ a log roll, Dr. Bergmann also took issue with the documented assessment that Mr. Szabo had suffered a “Major Trauma Blunt High Force” injury, saying

> “What you have to take into consider is that when someone comes to triage the nurse flips open the computer screen to trauma and then they get 60 or 80 choices of what they can choose there and you can sometimes even tell by the categories that they come up because they all learn a few that work for them and they find their way through the different hierarchies that follow after that and the choices and certain people will just choose certain ones and that just where you’re going.
>
> Major trauma blunt high force doesn’t necessarily mean that to be the case. These numbers are created by someone who is trying to just pull up a page, fill in some data and then get it going.”

[219] Simply put, Dr. Bergmann’s explanation for failing to utilize the “log roll” when removing Mr. Szabo from the back board was inadequate and demonstrated a concerning level of disregard for what Dr. MacLeod described as “standard emergency physician practice”.

[220] Dr. Bergman confirmed that because of the injuries and the complaint of lower back pain, he ordered L and C spine x-rays. He testified that he did not order x-rays of either Mr. Szabo’s pelvis or chest as there were no complaints of

tenderness. Despite the fact that Document I-3 indicates “blunt high force” as the cause of the injuries, Dr. Bergmann did not consider a chest x-ray to have been standard. He confirmed that he reviewed both x-rays that night.

[221] In his report, Dr. MacLeod commented that

> “It would be standard process in a Canadian Emergency department when a patient had experienced a serious mechanism of injury, or had any tenderness of any part of the chest, any respiratory difficulty, or any tenderness of any part of the pelvis, to do chest and pelvic x-rays as part of the initial evaluation. Following a fall of twenty feet, x-rays of the thoracic spine would also be included.”

[222] A number of witnesses confirmed that Mr. Szabo had an “obvious” fracture to his clavicle, a fact not noted by Dr. Bergmann in his examination. When asked how he could have missed the fractured clavicle his only response was that while Mr. Szabo’s shirt would have been open he is not sure if it was open wide enough for him to see the collar bone. This does not explain why Dr. Bergman would not have moved the shirt aside or taken appropriate steps to fully examine Mr. Szabo’s chest and collar bone area. This was a significant oversight on Dr. Bergmann’s part. Given that chest x-rays were not ordered, Dr. Bergmann was not made aware that Mr. Szabo suffered a number of rib fractures and a collapsed lung.

[223] Dr. Bergmann testified that there was a radiologist on call in 2006 for the Grace General Hospital. While the hospital now has the capacity by way of e-mail to contact one of the radiologists at home, at the time that option was not available. Dr. Bergmann felt that the “culture” of the hospital was that you would not call a radiologist at home unless it was a very significant issue. He acknowledged that he would not have picked up on the C spine injury but he thinks he would have picked on the pelvic/iliac crest fracture as well as the lungs and the chest injuries if those x-rays had been ordered.

[224] Dr. Bergmann also ordered a CT scan of the head because of the blow Mr. Szabo sustained. This was considered by Dr. MacLeod to be appropriate. At the time, the Grace General Hospital was limited to CT scans of the head. There was some discussion about the lack of availability of a full body CT scan, a procedure which has become the norm in some trauma centers where a patient suffers injury as a result of a major mechanism of injury. It would appear from the evidence, however, that the most significant injury sustained by Mr. Szabo, being the pelvic fracture, could have been detected if the appropriate x-rays had been ordered.

[225] It is recognized that Mr. Szabo did not have a spinal injury and the failure to employ the “log roll” was not one that contributed to his passing. It is, however, evidence of a lack of care and attention to recognized Advanced Trauma Life Support (ATLS) practices at a level which is quite concerning. It is in keeping with the generalized concerns expressed about Dr. Bergmann’s initial examination

and is consistent with his failure to note several obvious aspects of Mr. Szabo's condition, including the fractured clavicle and the incontinence. All of the foregoing suggests that the initial examination conducted by Dr. Bergmann fell short of obtaining the kind of detail expected of an emergency room doctor.

[226] Added to this is the lack of an accurate description in relation to the mechanism of injury. It wasn't until the next day that Dr. Bergmann determined that the information regarding the fall was incorrect, that the information regarding the injuries was incorrect including broken ribs, collapsed lung and fractured pelvis.

What Procedures were Completed at Initial Examination?

[227] There is a discrepancy in the evidence between Lora di Bernardo and Dr. Bergmann as to when it was that Mr. Szabo's head laceration was sutured. Dr. Bergmann recalled tending to the laceration early in the evening, shortly after he completed his initial assessment of Mr. Szabo. He indicated that he had been approached by Nurse di Bernardo who expressed concerns about Mr. Szabo's appearance, saying words to the effect that "he looks terrible" or "he looks like crap". It was around the time of suturing the patient that Dr. Bergmann recalled ordering morphine and gravol.

[228] Lora di Bernardo recalled this exchange occurring much later in the evening, in or around 23:47 hrs. While there were times during her evidence that Nurse di Bernardo had difficulty recalling specific facts, her recollection about the chain of events in and around the suturing of Mr. Szabo's laceration was relatively clear. Added to that is the fact that Mrs. Szabo recalled her husband being nauseated around this time, which would have been consistent with the Dr. Bergmann's order of gravol. As well, Nurse di Bernaro testified that the order for morphine was concurrent with the expectation that Mr. Szabo would need pain relief from the sutures. Exhibit 4 Section VI Document I-12, the Emergency Department medication order form reflects that 2.5 mgs of morphine was ordered at 23:47 hrs. Finally, Nurse di Bernardo's concern about the patient, "he looked like crap", was consistent with the commencement of Mr. Szabo's deterioration. Early in the evening, when Dr. Bergmann claims to have sutured the wound, Mr. Szabo's appearance was, by all accounts, fine.

[229] Mr. Szabo's ultimate passing was not related to any delay in suturing to a wound on his head, although Holly Johnson did describe seeing a significant amount of blood on the backboard. What the delay in the suturing of the head wound represents is more evidence that Mr. Szabo's condition was not given appropriate attention by Dr. Bergmann. It also raises serious concerns about the level of charting by both Dr. Bergmann and Nurse di Bernardo.

[230] The evidence suggests significant concerns about the level of communication between the nursing staff and Dr. Bergmann. There is no indication that Dr. Bergmann sought clarification from Lora di Bernardo as to

what specific concerns she had about Mr. Szabo's condition, a somewhat troubling scenario given the disparity in experience levels between Dr. Bergmann and Nurse di Bernardo.

Evidence of Physician Bias Regarding Alcohol Consumption?

[231] Shortly after Mr. Szabo's passing, a Critical Incident review took place at the Grace General Hospital, during which a number of staff members were interviewed. Concerns were expressed that Dr. Bergmann held a bias against patients who had been drinking and that this bias may have affected the level of care provided to Mr. Szabo. Notes from those interviews speak to the concerns held by staff, and attribute specific comments about Mr. Szabo to Dr. Bergmann. The notes also indicate that some nursing staff were concerned about Dr. Bergmann's response to this incident and their observations.

[232] Actually determining what was said by Dr. Bergmann is difficult given the passage of time and the fact that the notes referenced were summaries prepared by hospital administrators. The staff who were interviewed were not asked to confirm the accuracy of their statements and sign them. It is obvious that interviews of this nature can address delicate issues. However, when matters are dealt with months or years later, it seems that it would be helpful to have an accurate record of the comments and observations of the parties.

[233] It is less important to determine which words were actually uttered. If such comments were made, they demonstrate an attitude which can best be described as unprofessional. The more important issue is the atmosphere which existed in the Emergency Department. The importance of maintaining a positive "team" atmosphere, particularly in an emergency room setting, cannot be underestimated. Both Rosemarie Enokson and Dr. MacLeod spoke at length about the training involving both nursing and doctors to improve communication and to maintain a positive workplace atmosphere. Training can begin as early as Medical School, with emphasis on respect for co-workers and patients. If disparaging comments towards patients or staff undermine a "team" atmosphere, it is the responsibility of the hospital to take steps to address the problem in a meaningful way.

[234] It is clear that there were interpersonal issues in the Emergency Department and that the staff perceived that Dr. Bergmann's attitude was part of that problem. Dr. de Faria's email to Grace Hospital staff (Exhibit 4, Section VI, Document I-77) succinctly summarized the problem:

> "There is a clear lack of communication between the physician and the nursing staff regarding the condition of the patient. I expect there are various issues at play here but the nursing worries were either disregarded or not effectively communicated. If, as Dr. Bergmann stated, there was no biased against the patient because he was drunk, this was not seen as such by the staff."

[235] Dr. de Faria testified about the Team Stepps Program introduced through the WRHA, a program that appears to Dr. MacLeod to be similar to the one successfully introduced in Calgary. He testified as well about the steps taken in other hospitals in Winnipeg to break down the culture of “hierarchy” that can exist in some hospital departments. He pointed out the positive changes that have occurred at the Grace General Hospital, while acknowledging that more can and needs to be done.

[236] When issues arise that impact on the ability of a department to operate effectively, it is incumbent on the hospital to take proactive steps to address the problem. It is clear that hospital administration were aware of the issues, but evidence suggests that concerns about the ability to maintain an appropriate level of emergency room physicians was a practical consideration that affected their dealing with Dr. Bergmann.

[237] It is also clear that these issues were not new. The Grace General Hospital had an unfortunate history of being a demoralized workplace. Exhibit 45 is a review undertaken by The Grace General Hospital Emergency Department during the month of April, 2006. The purpose of the project was to study issues with respect to patient satisfaction, patients who “left without being seen (LWBS)” and with issues of staff morale. The report outlines a significant number of recommendations to address a vast array of issues facing the Grace General Hospital Emergency.

[238] The evidence also shows that some steps have been taken by the WRHA to introduce policies to address workplace related issues. Filed as Exhibit 143 is the “WRHA Respectful Workplace Policy”. The Grace General Hospital and the WRHA are to be commended for taking proactive steps to address these issues. A policy such as this, however, will only be effective if it is enforced with consequences that are real.

[239] It is recognized as well that attempts were made to deal with the specific issues that were in play in the Grace Emergency department both before and after this incident. Grace General Hospital representatives were candid with the Court when they acknowledged that the lack of availability of emergency room physicians was a practical reality that they had to contend with then (and still face now). While it may seen as an easy comment for an outsider to make, it is important not to allow resourcing issues to stand in the way of addressing challenges presented by any staff member, whether a physician or a nurse. It does seem that Grace General Hospital administrators are now aware of the problems that can arise if the negative attitude of a staff member is left unchecked.

Concerns Regarding Patient Care and Charting

[240] The initial entries on the hospital chart indicate that Mr. Szabo was seen by Lora di Bernardo at 20:30 and then again at 21:10. Nurse di Bernardo does

not recall seeing him again at any other time and likely would have made a note if she had.

[241] Mr. Szabo had a CT scan and x-rays completed at 22:15 and 22:20 hrs. Nurse di Bernardo recalled that Mr. Szabo returned from x-rays, she noted that he had been "gone for quite awhile" and that he "looked a bit pale". Rosemarie Enokson commented that "A prudent nursing approach would be to reassess Mr. Szabo's complete health status prior to leaving the emergency department and again upon his return to the department." While she acknowledged that workload issues can impact in the ability to meet standard nursing guidelines, the lack of any assessment during this period of time is troubling.

[242] After checking the cardiac monitor and blood pressure Nurse di Bernardo spoke again to Dr. Bergmann and pointed out her concerns about the patient. Once again, Ms. Enokson expressed concern about the lack of documentation of those concerns and of any change in the patient's status.

[243] Concern was expressed by Rosemarie Enokson as to the degree to which the findings of the nurses were recorded in the chart. The primary purpose of proper documentation was described by Rosemarie Enokson as follows:

> The primary purpose of documentation in the medical record is to ensure that all health professional have access to the important findings and the pertinent health information about the patient. The NENA of Canada Standard of Care 2.1 identifies that emergency room nurses' initial assessment should include "systematic and pertinent collection of data based on the chief complaint". It further requires "obtaining initial focused, subjective and objective data through history taking (inclusive of patient/family/EMS, or other care providers, physical assessment and review of records)".

[244] Other documents, including Exhibit 49, clearly indicate that standards of practice for registered nurses include the proper charting of accurate observations in a timely manner. The importance of accurate charting is emphasized again in Exhibit 50 entitled, "Documentation and Safe Practice in the ED" – a Power Point Presentation prepared by Laurie Ullrich, R.N. in November 2008. While it is clearly recognized at the outset of the Power Point that "there is never enough time to chart" it goes on to state that "documenting is part of providing safe, competent patient care . . . it is not an 'add on'." The power point emphasized that a "higher standard of care" may be expected in a specialty area.

[245] Lora di Bernardo was forthright with the Court with respect to the challenges she faced after her assessment of Mr. Szabo and acknowledged her charting was insufficient. She is to be commended for acknowledging the shortcomings in her charting. One issue which impacted on her ability to chart was the workload in the emergency room that evening. This issue was the subject of some evidence, as was the issue of the level of training of the nurses assigned to care for Mr. Szabo. Both of these issues will be reviewed.

Appropriate Level of Nursing Staffing

[246] It is clear from the evidence that the nursing staff working at the Grace Hospital on August 4, 2006 were having a difficult time keeping up with the quantity of patients as well as the seriousness of the injuries presented. Considerable evidence was heard on the issue of nursing staff levels both as it related to specifically August 4, 2006 and as well to the general challenges presented to the Grace General Hospital and to the WRHA respecting staffing levels.

[247] The Court heard that issues of nursing staff levels have been an ongoing concern both within Manitoba and across Canada. As counsel for the WRHA pointed out in his written submission, "the Grace Hospital is but one component in a large matrix delivering health care services" province–wide and city-wide. In fact Exhibit 147 demonstrated that volumes in all six hospital emergency rooms in Winnipeg in 2010 were up significantly over the year 2008, with the Grace General Hospital being one of the more stable than most". Systems expert Dr. Jan Davies acknowledged in her evidence that there is a "finite pool" of nurses in Canada and that those responsible for the overall administration of the health care system must consider a broad range of factors impacting financially on the operation of the health care system generally as well as each specific hospital department.

[248] It is also recognized that the calculation of number of nurses is often based on patient numbers which does not necessarily reflect the acuity of the situation. An added challenge is the relatively unpredictable nature of the emergency room environment. A sudden influx in patients and/or patients with a high acuity level can require an increase in the complement of the emergency room staff on a short term basis. Unfortunately, many institutions do not staff for "surges" (or have a hard time doing so) but more for periods of time during the day when workloads are expected to be the heaviest.

[249] The Court heard from Wendy Rudnick who was the Program Director for Specialty Services at the Emergency Critical Care and Mental Health at the Grace General Hospital. She provided the Court with information about the challenges of staffing an emergency ward at a hospital such as the Grace. Ms Rudnick confirmed that there were a number of options available to try and increase a staff complement within the facility. She described that if a particular department was in need of assistance, calls could be made to other departments to attempt to obtain assistance such as the intensive care unit. She confirmed that float release nurses, when available, can be of tremendous assistance but that those positions were often filled by other vacancies within the facility. She also confirmed that a position of float nurse actually existed in 2006 but Ms Rudnick indicated that it was a position that was sometimes difficult to staff, and when it was staffed was used to fill other positions of vacancy within the hospital.

[250] Issues of staff shortages were identified in Exhibit 45 at the Grace Emergency Department's Review Report dated June 12, 2006. Review team recommendation No. 3(a) reads as follows:

> "The Grace Hospital will review the nursing and support schedule to more closely match patient demand based on arrival patterns and volumes within the department."
>
> Recommendation No. 3(b) reads: "Adjust nursing schedules to allow a more balanced distribution of nursing experience." (Note: This recommendation is also supported by focus group comments, direct observations of the current Grace Emergency rotation and external consultant advice.)"

[251] In and around the time of this incident, nursing staff were provided the opportunity to document their staffing concerns on a form entitled "Nursing Workload Staff Report". Some frustration was expressed by those who testified about the fact that their concerns were frequently documented in these reports (often more than once weekly), they received little feedback. A report was actually completed by the staff in the emergency department regarding the shift when Mr. Szabo was a patient, and a copy was filed as Exhibit 4, Section VI, Document I-60A. The document describes the working conditions of the emergency on that evening: "very busy shift, higher than usual ambulance activity, multiple critically ill, no staff relief available."

[252] Bearing in mind the mandate of the Inquest, the Court must carefully consider the evidence of staffing shortages at the Grace General Hospital on August 4, 2006. Given the high volume and acuity of patients who presented on that evening, Nurse di Bernardo agreed to stay beyond her shift. Technically, the emergency room was at full staff complement with Ms Bernardo's agreement to stay late and fill in for a person who had called in sick. The Court is also mindful of the fact that the complement of nursing in the emergency has actually increased since this incident and that some of the emergency room nurses who testified confirmed that the situation had improved with the additional staff position and with some other staffing changes. However, there continues to be concern over the challenges related to maintaining an appropriate level of staffing in the emergency room when circumstances change with patient "surges". Efforts to maintain a complement of "float nurses" would assist in addressing these challenges.

[253] What has come out of the evidence on this issue is the clear indication that calculating the appropriate number of nurses for an emergency room is not as simple as applying a mathematical formula. A factor closely related to staffing levels is the issue of the training level of the staff who are actually on shift. Common sense dictates that nurses who are more experienced may better able to respond to complex cases when they present in a busier environment. The question then becomes the level of training of staff generally, and more

specifically the level of training for those staff called upon to handle patients who have been injured due to a significant trauma.

Appropriate Trauma Training for Nursing Staff

[254] Regardless of whatever triage protocol is in place, the evidence has made it clear that, from time to time, trauma patients are presented to the emergency at a community hospital. Those emergency rooms have to properly assess the patient.

[255] The various nurses testified as to the degree of training they possessed at the time of this incidence. It was acknowledged that while some of the emergency room nurses had more extensive training than others, not all had an equal degree of training or exposure to trauma patients. It was also recognized that, because the Grace General Hospital is not a trauma centre, there was less opportunity for trauma training on the job. Dr. Bruce MacLeod also expressed concern about the level of "on the job trauma training" or the ability to practice skills at a smaller community hospital for nurses who do have trauma training.

[256] The issue of training was dealt with somewhat during the Grace Emergency Department Review, the report of which was completed on June 12, 2006 and filed as Exhibit 45. The Grace General Hospital embarked on a review of the Emergency Department during the month of April, 2006. It is noteworthy and commendable that these steps continued after the incident involving Mr. Szabo. While it is recognized that National Trauma Training is not required for all emergency room nurses, the lack of trauma training for some of the nursing staff who dealt with Mr. Szabo at the Grace General Hospital is of concern. To that end, regular mandatory trauma training would be a significant step toward improving the knowledge base of the staff who are expected to attend to "under-triaged" trauma patients, or to those trauma patients who are brought without paramedic assistance.

[257] It is also recognized that the Grace General Hospital and other hospitals have taken steps within their own facilities to improve training. This, too, should be encouraged as part of an overall scheme to increase the level of trauma training for nursing staff in community hospitals.

Medical Care Provided August 5, 2006 at Grace General Hospital and HSC

[258] Sometime around 00:30 hrs on August 5, 2006 Mr. Szabo's condition was found to have deteriorated. He had earlier been moved by staff from the hallway in preparation for possible discharge. After concerns were raised by Mrs. Szabo and by nursing staff, he was moved again to the Resuscitation bay. By this time Mr. Szabo's care was assumed by Dr. Erik Smith, who had come on shift at midnight. Monitoring and investigation revealed a hemopneumothorax and a pelvic fracture of the right iliac crest. As noted by Dr. MacLeod, "an arterial blood gas revealed a state of serious decomposition due to shock with pH being

7.08 and the lactate being 14.48 at 00:39…This was the first point at which any blood tests were ordered during this visit."

[259] Without reviewing all of the details of his care, it is apparent that Mr. Szabo was in shock as a result of blood loss due to internal bleeding related to a fracture of his right iliac crest. Aggressive attempts were undertaken by the staff at the Grace General Hospital, and the "gold team" at the HSC was notified. Arrangements for transport were made and Mr. Szabo was taken by ambulance at 03:05 hrs to the HSC. He was accompanied by an emergency room doctor and nurse.

[260] There was some confusion on the part of Mrs. Szabo as to exactly what was occurring with her husband and why. She testified that she spoke to Dr. Smith prior to transport, who told her that her husband was "a sick man but that it had nothing to do with his fall". She went on to say that, in response to her inquiry, Dr. Smith said that Mr. Szabo had no broken bones. Dr. Smith obtained some further information from Mrs. Szabo about the accident and her husband's injuries.

[261] It would have been beneficial, both from a treatment perspective and from Mrs. Szabo's perspective, if there had been greater information sharing throughout the course of the evening. There was some discussion about this with various medical professionals, with a view to formulating a plan for the hospital to address this issue. Grace General Hospital administration appears willing to address this issue in a positive manner.

[262] Upon arrival at HSC, efforts continued to resuscitate and stabilize Mr. Szabo. A CT scan revealed a large retroperitoneal hematoma with active bleeding. Mr. Szabo was taken to the angiogram suite to attempt to visualize the source of the bleeding. Unfortunately, despite the efforts of the HSC staff, Mr. Szabo passed away at 06:22 hrs, three hours and sixteen minutes after his arrival. As noted by Dr. MacLeod in his expert report, "It is very unlikely anything more could have been done at Health Sciences Center to save Mr. Szabo."

[263] There were no issues of significance raised with respect to the care provided by Dr. Smith, to the transport by ambulance to the HSC, or by the care provided at the HSC. There will be no recommendations forthcoming regarding this aspect of Mr. Szabo's care.

Nursing Ability to Order Laboratory Investigation

[264] There was some discussion about the timing of the blood work completed on Mr. Szabo, particularly related to the issue of whether the nurses were authorized to order laboratory investigations. This is not surprising given that the evidence was conflicting as to what lab reports should be ordered in the event that patients such as Mr. Szabo presents at the hospital. Some evidence

indicated that the full lab reports were unnecessary. This is an issue that requires clarification on the part of Grace General Hospital staff.

[265] Most specifically, however, concern was expressed over the fact that there was no further investigation of Mr. Szabo's consumption of alcohol. It is unfortunate that no inquiries were made of Mrs. Szabo or Mr. Gustafson while they were present. The evidence is consistent that some patients are able to mask signs of impairment more effectively than others particularly those with a history of alcohol consumption as Mr. Szabo had. The evidence is also consistent that had the various medical staff been aware that Mr. Szabo had a significantly elevated blood alcohol level that it would have affected how they approached his treatment.

Recommendations

[266] Mr. Szabo was taken to the Grace General Hospital after experience a major trauma due to a “blunt high force” mechanism of injury. He remained at the hospital for almost seven hours before being transferred to the HSC, where he succumbed to his injuries. Bearing in mind the mandate of the Inquest and taking into account the evidence, the Court makes the following recommendations:

1. The Grace General Hospital should direct emergency room nursing staff that all trauma patients, regardless of their initial presentation, should:

- Receive 100% oxygen at a high flow until all injuries have been identified and assessed;
- Have two IVs established in the event that rapid infusion of blood or fluids is required;
- Have laboratory tests of blood types and screen, complete blood count chemistry (commonly the electrolyte sodium, potassium, chloride, glucose and creatinine and drug and alcohol analysis).

It should be noted that the forgoing tests are recommended by the Emergency Nursing Association 2007.

- That trauma patients who present with a history of alcohol consumption be tested to confirm their blood alcohol level.

2. The WRHA consider whether the above recommendation should extend to all community hospital emergency room nursing staff;

3. That WHRA/WFPS work in consultation with the Grace General Hospital with a view to directing paramedics and staff that patients assessed a CTAS 1 or 2 be the subject of a direct report between the paramedics and the bedside nurse and the attending emergency room physician;

4. The Grace General Hospital continue to make efforts to ensure that the charts be compiled and transferred with the patient to ensure that all information is available to nursing and physician staff;

5. The Grace General Hospital consider and clarify whether nursing staff can or should be authorized to order lab test/blood work, and if so, in what circumstances;

6. That the WRHA explore ways to provide trauma training and re-training to a nursing staff working in the emergency room in community hospitals on a regular basis;

7.That the Grace General Hospital require that emergency room nursing staff participate in regular trauma training/ re-training, whether through courses which are certified or through “in-house” training;

8.Subject to any limitations arising from the Personal Health Information Act, that the Grace General Hospital assign a staff person to communicate with family or others who attend to the hospital regarding the status of the patient;

9.The WRHA should consider whether recommendation #8 should apply to all community hospitals;

10.The Grace General Hospital actively maintained a relief/float position that the emergency room can call upon when a patient surge makes patient care difficult. Alternatively, the Grace General Hospital should develop a site plan that would allow more support staff to be available for the emergency department and other high risk areas.

11. Grace General Hospital administrators who are conducting a Critical Incident Review or who are interviewing staff should consider asking staff to read and sign any statements taken or interview notes;

12. Grace General Hospital Nursing Workload Staff Report forms should be reviewed by Hospital administration/senior management with a view to identifying and responding to issues on short and long term basis;

13.The Grace General Hospital/WRHA work together to introduce and support the Team Stepps program and to continue to identify new ways to improve communication between physicians and nursing staff;

14.That the Grace General Hospital support and enforce the WRHA’s Respectful Workplace Policy and work to ensure that it is enforced.

Systems Analysis of Issues Contributing to the Death of Andrew Szabo

[267] The Court received a report and heard evidence from Dr. Jan. Davies, Professor of Anaesthesia, Department of Anaesthesia, The Foothills Medical Centre in Calgary, Alberta. Dr. Davies provided expert opinion evidence on and was asked to "analyse this case from a system safety point of view" keeping in mind the terms of the inquest. In her lengthy report, Dr. Davies stated that:

> "During the course of my analysis, I looked for examples of system issues that I thought offered opportunities for such change. I also kept in mind four principles:
>
> - All suggestions for system improvement should be seen as representing a ***starting*** point for review in consideration by all those concerned with health system safety in the Winnipeg Regional Health Authority;
> - Some system issues might already have been changed, in whole or in part;
> - These suggestions, taken generically, could be used across the country by other health care institutions, authorities, and regions; and
> - Although part of the purpose of an inquest is to look for aspects of the system that might require "change", we should not lose sight of those parts of the system that work well that do not require change, and which should be replicated elsewhere within the system.

[268] Dr. Davies provided extensive information to the Court by defining systems, by considering the various dimensions of systems and by outlining the purpose of a systems analysis. While the details provided by Dr. Davies will not be repeated in whole, the breakdown of the categories of any system was helpful in considering whether there were any "system" factors which may have contributed to the death of Mr. Szabo.

[269] Dr. Davies defined a system using the definition taken from the Ninth Edition of the Concise Oxford Dictionary defining system as a:

> Complex whole; a set of connected things or parts; an organized body of material or immaterial things; a set of devices (e.g. pulleys) functioning together.

[270] She also adopts the term "system" as used in the psychological literature, defined as "a grouping of interrelated components that act together in an environment to achieve a particular outcome". Using this latter definition, she identifies three elements of a system: 1) a set of components; 2) that act together; 3) that achieve a particular outcome.

[271] Dr. Davies defines the aim of a system's analysis as one which is "not to find the 'single root cause' or even root causes" of an incident resulting in patient harm. Nor should the search necessarily be for "human error" except perhaps where human error provides a context for the "starting point" of an investigation. "Rather, the aim is to identify systems' deficiencies", looking for what she described as the "window of the problem". She goes on to state that the "purpose of identifying these deficiencies is to use them to develop and implement safety recommendations to minimize and/or mitigate these deficiencies".

[272] In her report on the analysis of the various "systems" at play in dealing with Mr. Szabo, Dr. Jan Davies noted a number of issues that have already been addressed elsewhere in this report. For example, she identified that "handover" was one of the themes in Mr. Szabo's case. She described handover "as the exchange of both verbal and documented information" and also a "form of professional referral from one health care professional to another". She goes on to note that "in the case of Mr. Szabo", he was "handed over" first from bystanders to reach him at the stadium, to the Criti Care paramedics, to the WFPS paramedics, to the triage nurse at the Grace General Hospital, to the Grace General Hospital bedside nurse(s), to the first Grace General Hospital ER doctor, to the second Grace General ER doctor, to the third Grace General Hospital ER doctor, to the reserving nurses and to the doctors at the HSC.

[273] As an example of the type of miscommunication that can result from multiple handovers, Dr. Davies provided the following entries from the various records:

- "fell downstairs end zone/Northwest end zone"
- "fall > 3 meters"
- "fell forward over railing while at stadium falling 20 feet? Landed on head. Fell 20 feet at stadium after ETOH x 8 drinks"
- "fell downstairs at stadium"
- "Andy was a sick man, but it had nothing to do with his fall"
- "multi trauma R hemo/pneumo, pelvic fractures, hemorrhagic shock".

[274] She recommended face to face handovers, which enables the type of communication which might reduce confusion and ensure accurate details are provided. She identifies another "important handover technique" as being face to face handovers with written reports which "reduces the probability of erroneous communication".

[275] Dr. Davies report identified a number of other issues which arose during the course of Mr. Szabo's care. Those specific issues have been addressed

throughout this report. While Dr. Davies report was helpful in identifying those issues, there will be no further specific or separate recommendations arising from Dr. Davies report and her evidence.

Conclusion

[276] The mandate of the Inquest was set out at the beginning of this report. Part of the obligations of an Inquest Judge is to determine the circumstances under which Mr. Szabo's death occurred and to make recommendations that "would reduce the likelihood of death in similar circumstances".

[277] Mr. Szabo suffered critical life threatening injuries caused by a fall at the Canad Inns stadium on August 4, 2006. After being stabilized at the scene, he was transported to the Grace General Hospital, where he remained for a period of almost seven hours. When his condition destabilized he was transported to the HSC, where aggressive interventions were attempted. Approximately three hours after his arrival, he succumbed to his injuries.

[278] The injuries which resulted in Mr. Szabo's passing were due in part to certain aspects of the structure of the north end zone stands, including the stairs and the guard rails, and possibly exacerbated by Mr. Szabo's elevated blood alcohol level. Recommendations have been made to address the aspects of the north end zone structure.

[279] The nature and extent of the injuries sustained by Mr. Szabo were not immediately identified by emergency room staff (nurses and physician) at the Grace General Hospital. He was therefore not identified as being in need of secondary transfer to the HSC, where CT technology was available and doctors specializing in the treatment of trauma related injuries were on staff.

[280] While it is impossible to say with certainty that Mr. Szabo would have survived had he been transported directly to the HSC, early recognition of his condition for a timely secondary transport, or alternatively a direct transport would have afforded HSC staff the opportunity to diagnose the extent of his life threatening injuries and would have allowed time for attempts at intervention before he became critically unstable.

[281] Bearing in mind all of the forgoing, I conclude that Mr. Szabo's death was preventable. The recommendation in this report identify for consideration areas of improvement at the Canad Inns stadium, for changes to the pre-hospital system, as well as recommendations for the enhancement of care of trauma patients at community hospitals.

[282] Finally, I wish to echo the condolences expressed to Mrs. Szabo by various counsel at the conclusion of these proceedings. A significant amount of time has passed since Mr. Szabo's unfortunate passing. Throughout all of her

dealings with those involved with the care of her husband, Mrs. Szabo conducted herself with grace and dignity. She attended virtually every day of the Inquest, and testified at the beginning of the proceedings. There is no doubt that the proceedings were at times difficult and emotional for her. I can only hope that the information she learned during the course of these proceeding as well as the contents of this report and its recommendations provide her with some closure. On behalf of the Court, I wish to express my deepest sincere sympathy.

Dated at the City of Winnipeg, in Manitoba, this 17th day of June, 2011.

"Original Signed by:"

Judge Mary Kate Harvie

Appendix A to the Inquest Report of Judge Harvie issued the 17th day of June, 2011.

SUMMARY OF RECOMMENDATIONS

Building Code Recommendations:

1. The Building Standards Board study the need for hand rails in “bleacher” aisles as well as “exit” aisles, with a view to recommending that hand rails be included in all “bleacher” aisles in Assembly Occupancy Facilities;

2. That the City of Winnipeg Building Inspectors Office require that a Building Inspector attend forthwith to the Canad Inns Stadium to assess the safety of the north end zone exit aisles. In the event that concerns about wear and tear, weathering, or variances in the rise and run of the stairs create safety concerns, the Inspector direct that a hand rail be installed along those stairs. The City of Winnipeg shall bear the cost of the installation of any hand rails, as well as any modifications to the aisles or the seating to accommodate such a hand rail;

3. That The City of Winnipeg Building Inspectors Office examine the treads of the north end zone bleacher aisles to determine if they “have a finish that is slip resistant” and “have either a color contrast or a distinctive pattern to demarcate the leading edge of the tread and the leading edge of the landing.” If the treads do not have this type of finish, or if the color contrast or distinctive patterns are not sufficient to demarcate the leading edge of the tread or the leading edge of the landing, the Inspector shall direct that it be applied forthwith and The City of Winnipeg shall bear the cost of the application;

4. That the City of Winnipeg direct the Winnipeg Football Club to take immediate steps to modify the guard rail running along the walkway in the north end zone of the Canad Inns Stadium so that it is brought up to compliance with the 2005 Building Code requirements and that The City of Winnipeg be responsible for any costs related to the changes to the guard rail;

5. That the Building Standards Board and The Provincial/Territorial Policy Advisory Committee on Codes (PTPAC) study and consider whether there are issues related to public safety contained within the Building Code that ought to be considered for retroactive application;

6. That the Building Standards Board should recommend a definition for the term “substantial” as it relates to renovations and changes to existing structures or portions of structures.

Recommendations directed to WFPS and the WRHA as it relates to paramedic services and triage protocols :

7. WRHA/WFPS retain “mechanism of injury” in the trauma triage protocol, including the provision which requires transport to a trauma center if there is a fall from a height 20 feet or more;

8. Instruct WFPS paramedics that they are allowed to rely upon the medical findings of other paramedic services in assessing the applicability of the trauma triage and other triage protocols;

9. WFPS/WRHA should accept and disseminate to Medical Supervisors, Platoon Chiefs and any other WFPS staff they feel is appropriate information provided by private paramedic companies about the training of the paramedics retained by those private paramedic companies;

10. At the request of any private paramedic company, WFPS/WRHA should provide their transport protocols/triage protocols to those private paramedic companies;

11. WFPS/WRHA work together with Critic Care or any other private paramedic company to establish guidelines for patient hand-over and transfer of care;

12. WRHA provide the fax machine numbers for all Winnipeg hospital emergency rooms to any private paramedic company so as to ensure that private paramedic reports are forwarded to the proper number;

13. WRHA/WFPS examine whether it is feasible to permit private paramedic companies access to the current Electronic Patient Care Reporting (EPCR) system presently in use

14. WFPS/WRHA should amend the trauma triage protocol to allow for medical supervisors and/or paramedics to have some discretion when assessing the application of the trauma triage and other triage protocols under the heading “EMS PROVIDER JUDGMENT”;

15. WFPS/WRHA should amend the trauma triage protocol to add- “when in doubt” provision which would authorize paramedics to transport a patient to the trauma center “when in doubt”;

16. If the WFPS/WRHA should choose not to allow paramedics or medical supervisors in the field to have any discretion when applying the triage protocols, then an “online” medical control system should be introduced, allowing paramedics and/or medical supervisors access to an emergency room physician for consultation purposes.

Recommendations re Grace General Hospital

17. The Grace General Hospital should direct emergency room nursing staff that all trauma patients, regardless of their initial presentation, should:

- Receive 100% oxygen at a high flow until all injuries have been identified and assessed;
- Have two IVs established in the event that rapid infusion of blood or fluids is required;
- Have laboratory tests of blood types and screen, complete blood count chemistry (commonly the electrolyte sodium, potassium, chloride, glucose and creatinine and drug and alcohol analysis).

It should be noted that the forgoing tests are recommended by the Emergency Nursing Association 2007.

- That trauma patients who present with a history of alcohol consumption be tested to confirm their blood alcohol level.

18. The WRHA consider whether the above recommendation should extend to all community hospital emergency room nursing staff;

19. That WHRA/WFPS work in consultation with the Grace General Hospital with a view to directing paramedics and staff that patients assessed a CTAS 1 or 2 be the subject of a direct report between the paramedics and the bedside nurse and the attending emergency room physician;

20. The Grace General Hospital continue to make efforts to ensure that the charts be compiled and transferred with the patient to ensure that all information is available to nursing and physician staff;

21. The Grace General Hospital consider and clarify whether nursing staff can or should be authorized to order lab test/blood work, and if so, in what circumstances;

22. That the WRHA explore ways to provide trauma training and re-training to a nursing staff working in the emergency room in community hospitals on a regular basis;

23. That the Grace General Hospital require that emergency room nursing staff participate in regular trauma training/ re-training, whether through courses which are certified or through “in-house” training;

24. Subject to any limitations arising from the Personal Health Information Act, that the Grace General Hospital assign a staff person to communicate with family or others who attend to the hospital regarding the status of the patient;

25. The WRHA should consider whether recommendation #8 should apply to all community hospitals;

26. The Grace General Hospital actively maintained a relief/float position that the emergency room can call upon when a patient surge makes patient care difficult. Alternatively, the Grace General Hospital should develop a site plan that would allow more support staff to be available for the emergency department and other high risk areas.

27. Grace General Hospital administrators who are conducting a Critical Incident Review or who are interviewing staff should consider asking staff to read and sign any statements taken or interview notes;

28. Grace General Hospital Nursing Workload Staff Report forms should be reviewed by Hospital administration/senior management with a view to identifying and responding to issues on short and long term basis;

29. The Grace General Hospital/WRHA work together to introduce and support the Team Stepps program and to continue to identify new ways to improve communication between physicians and nursing staff;

30. That the Grace General Hospital support and enforce the WRHA's Respectful Workplace Policy and work to ensure that it is enforced.

Appendix B to the Inquest Report of Judge Harvie issued the 17th day of June, 2011.

Riser and Tread Dimensions-mm (Descending)

	Descending	
	Rise	Run
Seat 1	188	343
Step 1	180	327
Seat 1	192	360
Step 1	181	337
Seat 1	191	351
Step 1	186	333
Seat 1	186	351
Step 1	183	336
Seat 9	187	342
Step 9	183	335
Seat 8	187	349
Step 8	182	344
Seat 7	189	345
Step 7	188	330
Seat 6	189	350
Step 6	198	337
Seat 5	187	355
Step 5	193	334
Seat 4	184	347
Step 4	191	331
Seat 3	182	360
Step 3	189	333
Seat 2	209	350
Step 2	201	386
Seat 1	200	383
Step 1	192	312
Averaae	189.	344.7

Appendix C to the Inquest Report of
Judge Harvie issued the 17th day of June, 2011.

INQUEST SITTING DAYS/DATES:

The Inquest sat on the following days:

DAY 1 > Tuesday, September 29, 2009
DAY 2 > Wednesday, September 30, 2009
DAY 3 > Thursday, October 1, 2009
DAY 4 > Friday, October 2, 2009
DAY 5 > Monday, October 5, 2009
DAY 6 > Tuesday, October 13, 2009
DAY 7 > Wednesday, October 14, 2009
DAY 8 > Thursday, October 15, 2009
DAY 9 > Friday, October 16, 2009
DAY 10 > Wednesday, April 7, 2010
DAY 11 > Thursday, April 8, 2010
DAY 12 > Friday, April 9, 2010
DAY 13 > Monday, April 12, 2010
DAY 14 > Tuesday, April 14, 2010
DAY 15 > Monday, April 19, 2010
DAY 16 > Tuesday, April 20, 2010
DAY 17 > Wednesday, April 21, 2010
DAY 18 > Thursday, April 22, 2010
DAY 19 > Friday, April 23, 2010
DAY 20 > Monday, April 26, 2010
DAY 21 > Tuesday, April 27, 2010
DAY 22 > Wednesday, April 28, 2010
DAY 23 > Tuesday, June 15, 2010
DAY 24 > Monday, June 21, 2010
DAY 25> Tuesday, June 29, 2010
DAY 26 > Thursday, July 8, 2010
DAY 27 > Monday, August 30, 2010
DAY 28 > Wednesday, October 13, 2010
DAY 29 > Friday, October 15, 2010
DAY 30 > Monday, October 18, 2010
DAY 31 > Tuesday, October 19, 2010
DAY 32 > Monday, December 13, 2010
DAY 33 > Friday, December 17, 2010

Appendix D to the Inquest Report of Judge Harvie issued the 17th day of June, 2011.

In total, the Andrew Szabo Inquest sat for 33 days. Fifty witnesses appeared before the court. The Crown and Counsel were invited to make written and/or verbal submissions to the court.

WITNESSES CALLED:
September 29, 2009

1. **Constable Craig Robert Boan, Ident Unit**
2. **Barbara Mary Szabo, widow of Andrew Szabo**
3. **Dr. A. Thambirajah Balachandra, Chief Medical Examiner**

September 30, 2009

4. **Dr. Marc Ronald del Bigio, Neuropathologist**
5. **Dr. Robert Charles Meatherall, Toxicologist**

October 1, 2009

6. **Patrick Walker, spectator**
7. **Terry Moffatt, spectator**
8. **Tracy Helgeson, spectator**
9. **Taryn Rae (nee Paterson) Moffatt**

October 2, 2009

10. **Wayne Rogers, Executive Director of Children's Variety Club, spectator**
11. **Dr. Garvin Wallace Pierce, Radiologist**
12. **Richard William Butterill, spectator**
13. **Delaney Dale Macaig, volunteer usher**

October 5, 2009

14. **Kenneth Wayne Meakin, Security Coordinator for Winnipeg Football Club**
15. **Shirlee Anne Preteau, Vice President of Facility/Event Planning, Winnipeg Football Club**

October 13, 2009

16. **Dr. Robert Andrew Grierson, Medical Director, Winnipeg Fire Paramedic Service**
17. **William M. Sommers, President/Chief Executive Officer of Criti Care INC.**

October 14, 2009

18. **Dr. Jeremy Lipschitz, Surgeon on call for Emergency at Health Sciences Centre (HSC)**
19. **Darryl Brent Kostenuk, spectator**
20. **Troy Fitzgerald Reidy, attendant (at stadium), Intermediate Care Paramedic, Winnipeg Fire Paramedic Service**

October 15, 2009

21. Randy Gustafson, friend of Andrew Szabo/ spectator
22. Ronald George Sneath, Assistant Platoon Chief, Winnipeg Fire Paramedic Service
23. Charles Murray Thomas, Medical Supervisor, Winnipeg Fire Paramedic Service

October 16, 2009

24. Thomas James Walsh, Paramedic (attendant to HSC), Winnipeg Fire Paramedic Service
25. Martin Nienhuis, Intermediate Care Paramedic at stadium, Criti Care
26. Brent James Beckiaris, Paramedic (at stadium), Winnipeg Fire Paramedic Service

April 7, 2010

27. Sergeant Clifford Leonard Samson, spectator
28. Gwen Elizabeth Desautels, Triage Nurse in Emergency, Grace General Hospital

April 8, 2010

29. Holly Gail Johnson, Emergency Nurse, Grace General Hospital

April 9, 2010

30. Lora Anna di Bernardo, Emergency Nurse, Grace General Hospital

April 12, 2010

31. Denise Patricia Patenaude, Nurse in Charge, Emergency, Grace General Hospital

April 13, 2010

32. Dale William Bialek, Emergency Nurse, Grace General Hospital
33. Karen Christine Samson RN BN, Regional Educator, Winnipeg Regional Health Authority

April 19, 2010

34. Dr. Terence Grant Bergmann, Emergency Physician, Grace General Hospital

April 20, 2010

35. Dr. Erik Richard Smith, Emergency Physician, Grace General Hospital

April 21, 2010

36. Wendy Rudnick, RN BN, Program Director, Special Services – Emergency, Critical Care & Mental Health, Grace General Hospital
37. Shirley Jean Gobelle RN BN, Risk Manager, Grace General Hospital

April 22, 2010

38. Dr. Ricardo Jorge Lobato de Faria, Chief Medical Officer, Seven Oaks General Hospital

April 23, 2010

39. Rosemarie Nadia Enokson, RN BScN, Expert qualified to give opinion evidence on Nursing Practice

April 26, 2010

40. Evinash Chendre Gupta, P. Eng, Acting Administrator for Planning Examination, City of Winnipeg

41. James Morris Haslund, Inspector, Manitoba Liquor Control Commission

April 27, 2010

42. Helen Elizabeth Clark, Vice President and Chief Allied Health Officer, HSC

43. Dr. Christopher Donald Cymbalisty, Emergency Physician, Grace General Hospital

April 28, 2010

44. Dr. Donald Bruce MacLeod, Expert qualified to give opinion evidence on Emergency Medicine and Patient Safety

June 15, 2010

45. Craig Allan Brown, PhD PEng, MEA Forensic Engineers & Scientists Ltd, Expert qualified to give opinion evidence on the Slip and Fall of Andrew Szabo and compliance of Canad Stadium with bylaws

46. Lorna Watson RN, Patient Care Manager, Grace General Hospital

June 21, 2010

47. Dr. Jan Margaret Davies, Expert qualified to give opinion evidence on Health Systems and Quality

June 29, 2010

48. Gunter Paul Siegmund, PhD PEng, MEA Forensic Engineers & Scientists Ltd, Expert qualified to give opinion evidence in the area of biomechanics and the mechanics of Mr. Szabo's injuries

July 8, 2010

(RECALLED) Evinash Chendre Gupta, P. Eng, Acting Administrator for Planning Examination, City of Winnipeg

August 30, 2010

49. Christopher Jones, Fire Commissioner

October 13, 2010

(RECALLED) Dr. Robert Andrew Grierson, Medical Director, Winnipeg Fire Paramedic Service

50. Elizabeth Ethel Beaupre, Executive Director, Joint Operating Division of the University of Manitoba (Medical School) and the Winnipeg Regional Health Authority

October15, 2010

Summations: Mandy Ambrose, Robert Sokalski, Gavin Wood, Michael Jack

October 18, 2010

Summations: Bill Olson

October 19, 2010

Summations: Thor Hansell, Robert Tapper

December 13, 2010

Summations re Canada Inn Stadium: Mandy Ambrose, Michael Jack

December 17, 2010

Summations Canada Inn Stadium: Robert Sokalski

Appendix E to the Inquest Report of Judge Harvie issued the 17th day of June, 2011.

EXHIBITS ENTERED:

SEPTEMBER 29, 2009	
EXHIBIT #1	**Letter dated March 6, 2008 from the Chief Medical Examiner, Doctor A. Thambirajah Balachandra, 3 pages**
EXHIBIT #2	**Photograph of Andrew, Dana and Barbara Szabo**
EXHIBIT #3	**DVD: Entitled Grace Hospital Don not return, Study of CT Head/Chest/Pelvis/Spine x-rays Andrew Szabo DOB 22/02/1954**
EXHIBIT #4	**Collective – 2 corrugated folders that contain replica of all documentation compiled in all binders being referenced in court**
EXHIBIT #5	**Photocopied notes from Constable Craig Boan, 2 pages**
EXHIBIT #6	**Blue booklet of photos taken by Cst. C. Boan 1002/42, 1 photos**
EXHIBIT #7	**Curriculum Vitae of Doctor A. Thambirajah Balachandra, Chief Medical Examiner, 6 pages**
EXHIBIT #8	**Curriculum Vitae of Doctor Marc Ronald Del Bigio, Neuropathologist, 34 pages**
SEPTEMBER 30, 2009	
EXHIBIT # 9	**Curriculum Vitae of Doctor Robert Meatherall, Toxicologist**
OCTOBER 1, 2009	
EXHIBIT #10	**1 page, hand and pencil written calculations from Toxicologist, Doctor Robert Meatherall**
OCTOBER 2, 2009	
EXHIBIT #11	**Curriculum Vitae of Doctor Gavin W. Pierce, Radiologist, 3 pages**
EXHIBIT #12	**DVD entitled Grace Hospital Do not return, Study of chest x-rays, L-spine, C-spine, pelvis, CT head Andrew Szabo DOB 22/02/1954 dated August 4 & 5, 2009**
OCTOBER 5, 2009	
EXHIBIT #13	**Consent to Assignment and Assignment of Lease between the City of Winnipeg and Winnipeg Enterprises Corporation and the Winnipeg Football Club dated June 1, 2004, 15 pages**
EXHIBIT #14	**Concession Agreement dated October 21, 2005, signed by Kenneth R. Frick and other is illegible, 16 pages (last page is blank)**
EXHIBIT #15	**MCLL License number 53935 for the Stadium and Football Field, 2nd floor Field House and a Record of Operations dated September 28, 2009 and stamped File Copy, 3 pages**

EXHIBIT #16	**Shirlee Preteau's experience letter regarding venue management, 1 page**
EXHIBIT #17	**Industry Associations and Training Programs on first page and 2nd page Academy for Venue Safety and Security, 3rd page PAFMS at Oglebay, 3 pages**
EXHIBIT #18	**Guest Relations Training Programs with Ruby Speakes, 9 pages (from the internet)**

OCTOBER 13, 2009

EXHIBIT #19	**Curriculum Vitae for Doctor Robert Andrew Grierson, 8 pages**
EXHIBIT #20	**Guidelines for Field Triage of Injured Patients Recommendations of the National Expert Panel on Field Triage, 27 pages (double sided)**

OCTOBER 14, 2009

EXHIBIT # 21	**Curriculum Vitae of Doctor Jeremy Lipschitz, 8 pages**

OCTOBER 15, 2009

EXHIBIT #22	**Inservice Report Platoon #3/6 Topic Trauma Triage Revisions, 1 page**

OCTOBER 16, 2009

EXHIBIT #23	**Package series of letter and documents relating to the College of Physicians & Surgeons' review of Doctor Terrance Bergmann's care of Andrew Szabo, 103 pages**

APRIL 7, 2010

EXHIBIT #24	**Curriculum Vitae of Dr. Bruce MacLeod, MD FRCPC, 7pages**
EXHIBIT #25	**Report from Dr. Bruce MacLeod, 14 pages**
EXHIBIT #26	**Curriculum Vitae of Rosemarie N. Enokson, RN, BScN, 3 pages**
EXHIBIT #27	**Report from Ms Rosemarie N. Enokson, 25 pages**
EXHIBIT #28	**Stadium Report from Mr. Gupta, City of Winnipeg, 9 pages**
EXHIBIT #29	**A copy of the letter to a Dr. Velthuysen from The College of Physicians & Surgeons of Manitoba requesting that he act as an external consultant regarding Dr. Terence Bergmann, 6 pages**
EXHIBIT #30	**A copy of the Affidavit of William Duncan Pope, sworn February 5, 2010 and a copy of the report prepared by Dr. Velthuysen, 4 pages**
Exhibit #31	**A selection of four photographs with annotated measurements provided by the Identification Unit of the Winnipeg Police Service, 4 pages**

EXHIBIT #32	**Photographs of Andrew Szabo taken during his autopsy, 23 pages**
EXHIBIT #33	**Erratum: Vol. 58, No. RR-1 to Exhibit #20: Guidelines for Field Triage of injured Patients: Recommendations of the National Expert Panel on Field Triage, 1 page**
EXHIBIT #34	**Curriculum Vitae of Shirley Gobelle, RN BN, 6 pages**
EXHIBIT #35	**Curriculum Vitae of Wendy Rudnick, RN BN MN, 8 pages**
EXHIBIT #36	**Emergency Medicine: Education Summary dated March 8, 2010, 3 pages**
EXHIBIT #37	**Standards of Emergency Nursing Practice for National Emergency Nurses' Affiliation (NENA) Inc. dated November 2007, 15 pages**
EXHIBIT #38	**Drug Screen Work Sheet prepared by Dr. Meatherall, Toxicologist, 7 pages**
EXHIBIT #39	**Alcohol Screen Work Sheet prepared by Dr. Meatherall, Toxicologist, 7 pages**
EXHIBIT #40	**Medical Examiner Toxicology Requisition, 1 page**
EXHIBIT #41	**Typed notes prepared by Dr. Smith on December 28, 2006, 2 pages**
EXHIBIT #42	**Winnipeg Health Region Emergency Department Total Worked Hours per Emergency Visit, 3 pages**
EXHIBIT #43	**Grace Hospital Emergency Review Prioritization of Recommendations dated September 15, 2006, 4 pages**
EXHIBIT #44	**Emergency & Observation/Reassessment Unit Staffing, 2 pages**
EXHIBIT #45	**Grace Emergency Department Review – Summary of Report dated June 12, 2006, 14 pages**
EXHIBIT #46	**Grace General Hospital Emergency Department Review May 2006 Recommendations, 8 pages**
EXHIBIT #47	**Memo from Wendy Rudnick dated October 27, 2009 Re: rotations, 1 page**
EXHIBIT #48	**2009 Regional Emergency Orientation Agenda Level 1A/Week 1**
EXHIBIT #49	**Standards of Practice for Registered Nurses, 4 pages**
EXHIBIT #50	**Documentation & Safe Practice in the ED (PowerPoint presentation), 31 pages**
EXHIBIT #51	**Guideline entitled Patient Report, 1 page**
EXHIBIT #52	**Guidelines for Communicating with Physicians using the SBAR Process, 2 pages**
EXHIBIT #53	**SBAR report to physician about a critical situation, 1 page**
EXHIBIT #54	**An article entitled Quality Documentation: Your Best Defence, 2 pages**
EXHIBIT #55	**Documentation: Standards of Practice Applications from College of Registered Nurses of Manitoba, 2 pages**
EXHIBIT #56	**A Winnipeg Regional Health Authority Policy entitled Medication Order Writing Standards, 3 pages**

EXHIBIT #57	**A Winnipeg Regional Health Authority Policy & Procedure entitled Protection of Privacy During Use And Disclosure OF Personal Health Information, 8 pages**
EXHIBIT #58	**A Winnipeg Regional Health Authority Policy & Procedure entitled Disclosure of Personal Health Information To Police, 9 pages**
EXHIBIT #59	**Implementation Guidelines for The Canadian Emergency Department Triage & Acuity Scale (CTAS), 32 pages**
EXHIBIT #60	**A copy of 2009 WRHA Triage Update, October 14, 2 pages**
EXHIBIT #61	**The Canadian Triage and Acuity Scale: Education Manual, September 2008, 22 pages**
EXHIBIT #62	**A copy of the Manitoba Liquor Control Commission's Licensee Field Manual, 33 double-sided**
EXHIBIT #63	**A copy of the Manitoba Liquor Control Commission's Liquor Laws & You: A Guide for Licensed Premises, 13 double-sided**
EXHIBIT #64	**WRHA Orientation: Additional Triage Information, 59 pages**
EXHIBIT #65	**WRHA Emergency Triage Orientation: Atypical Chest Pain, March 2005, 13 pages**
EXHIBIT #66	**WRHA Emergency Triage Orientation: Adult Standing Orders for Nurse Initiated Medications, December 13, 2006, 9 pages**
EXHIBIT #67	**WRHA Emergency Triage Orientation: Paediatric Standing Orders for Nurse Initiated Medications, February 2007, 29 pages**
EXHIBIT #68	**WRHA Emergency Triage Orientation: Recognition, Intervention and Prevention of Abuse: Review of Indicators, Principles of Intervention and Reporting, March 2008, 16 pages**
EXHIBIT #69	**WRHA Emergency Triage Orientation: Victims of Sexual Assault, November 2008, 12 pages**
EXHIBIT #70	**WRHA Emergency Triage Orientation: Nurse Initiated X-rays & Radiation Safety, 89 pages**
EXHIBIT #71	**WRHA Emergency Program: Triage & Patient Reassessments Form Guidelines, 8 pages**
EXHIBIT #72	**WRHA Triage Orientation: Triage Reassessment Guidelines, January 2008, 11 pages**
EXHIBIT #73	**Triage: Mental Health by Karen Clements, March 2009, 78 pages**
EXHIBIT #74	**HICS For WRHA Emergency Triage Nurses, April 2008, 38 pages**
EXHIBIT #75	**WRHA Emergency Triage Orientation: The 3 C's Customer Service, Comfort & Caring & Cultural Proficiency At Triage, April 2008, 41 pages**
EXHIBIT #76	**Applying CTAS to Adults: Assigning CTAS Scores Using CEDIS Chief Compliant and Modifiers, September 2008,**

	77 pages
EXHIBIT #77	**Pediatric Triage: Assigning CTAS Scores Using CEDIS Chief Complaint and Modifiers, October 2008, 80 pages**
EXHIBIT #78	**Applying CTAS: Selected Complaints Require Greater Knowledge of Second Order Modifiers, September 2008, 50 pages**
EXHIBIT #79	**Blank booklet – Nursing Workload staffing report guidelines for use**

APRIL 9, 2010

EXHIBIT #80	**Narcotic & Controlled Drug Record, 1 page**

APRIL 12, 2010

EXHIBIT #81	**Memorandum from Dr. A. Thambirajah Balachandra dated April 6, 2010**
EXHIBIT #82	**WRHA Emergency Department Dashboard, 1 page**
EXHIBIT #83	**Legible copy of Narcotic and Controlled Drug Record, 1 page**

APRIL 13, 2010

EXHIBIT #84	**WRHA Emergency Department Dashboard in colour, 1 page**
EXHIBIT #85	**Karen Samson resume, 2 pages double-sided**
EXHIBIT #86	**WRHA Trauma Education Course layout, 1 page**
EXHIBIT #87	**WRHA PowerPoint printout of trauma assessment in Emergency, 6 pages**

APRIL 19, 2010

EXHIBIT #88	**Colour photos of paramedic on a spinal backboard, 5 pages**

APRIL 21, 2010

EXHIBIT #89	**Letters dated August 16, 2006; May 29, 2007; September 30, 2009 from Shirley Gobelle (x2) and from Dr. W.W.A. van Dyk, 3 pages**

APRIL 22, 2010

EXHIBIT #90	**GGH Resource Team Information, 1 page**
EXHIBIT #91	**Dr. Ricardo Lobato de Faria CV summary, 1 page**

APRIL 26, 2010

EXHIBIT #92	**North End Zone seating only and entire stadium seating, 1 page**
EXHIBIT #93	**Resume of Evinash Chendre Gupta, 4 pages**
EXHIBIT #94	**Begins with Introduction: Under The Constitution Act 1982, 2 pages**
EXHIBIT #95	**North End Zone building permit, 38 pages**
EXHIBIT #96	**Alcohol Service Policies at MLB ballparks, 4 pages**

APRIL 27, 2010

EXHIBIT #97	**ED Initial Nursing Assessment, 2 pages**
EXHIBIT #98	**December 2009 Nursing Resources and Vacancy summary, 1 page**
EXHIBIT #99	**Resume for Helen Clark, 5 pages**
EXHIBIT #100	**Personal Care Home Affiliations includes 2 letters from Dr. de Faria and Dr. Rob Grierson, 5 pages**
EXHIBIT #101	**2 boxes entitled What Do We Know and Response Ratio, 1 page**
EXHIBIT #102	**Letter dated October 26, 2009 from Brenda Gregory to Helen Clark and Chief J. Brennan, 2 pages**
EXHIBIT #103	**Chart of the Canadian C-Spine Rules by Dr. Ian Stiell, 1 page**
EXHIBIT #104	**Trauma History and Physician Physical Examination,5 pages**
EXHIBIT #105	**Trauma Resuscitation Record, 6 pages**
EXHIBIT #106	**Yellow booklet entitled Winnipeg By-Law Number 4555/87**
EXHIBIT #107	**National Model Construction Code documents, 12 pages**
EXHIBIT #108	**National Building Code of Canada 2005; Division A: 1.4.1.2., 2 pages**
EXHIBIT #109	**Personal drawings of Mr. Gupta with equations, 1 page**
EXHIBIT #110	**Critical Care SBAR tool – Report to Physician, 1 page**

JUNE 15, 2010

EXHIBIT #111	**Protocol, Policy and Procedure Committee Terms Of Reference, Emergency/Urgent Care Unit Manual, Calgary Health Region, 4 pages**
EXHIBIT #112	**Modified C-spine Protection, Emergency Unit Manual, Calgary Health Region, Alberta Health Services, 3 pages**
EXHIBIT #113	**Documentation Guidelines For Medication Administration Record, Emergency/Urgent Care Unit Manual, Calgary Health Region, 1 page**
EXHIBIT #114	**Documentation Guidelines For Emergency Assessment And Treatment Record, Emergency/Urgent Care Unit Manual, Calgary Health Region, 9 pages**
EXHIBIT #115	**Suspected Ischemic Chest Pain, Emergency/Urgent Care Unit Manual, Calgary Health Region, 2 pages**
EXHIBIT #116	**Trauma Patient, Emergency/Urgent Care Unit Manual, Calgary Health Region, 3 pages**
EXHIBIT #117	**Building Code Analysis Report by Craig A. Brown P Eng, MEA Forensic, 60 pages**
EXHIBIT #118	**Curriculum vitae of Craig A. Brown, PEng, Mea Forensic, 2 pages**

June 21, 2010

EXHIBIT #119	**North End Stadium: A System Or Mechanism To Upgrade The Existing Structures by Mr. Gupta, 5 pages**

JUNE 29, 2010

EXHIBIT #120	**Evaluation of American College of Surgeons Trauma Triage Criteria in a Suburban and Rural Setting, 6 pages**
EXHIBIT #121	**Trauma: an annotated bibliography of the recent literature 2005, 23 pages**
EXHIBIT #122	**Development of pre-hospital trauma-care system an overview, 9 pages**
EXHIBIT #123	**Is mechanism of injury alone a useful predictor of major trauma? 7 pages**
EXHIBIT #124	**Is mechanism of injury alone in the pre-hospital setting a predictor of major trauma – a review of the literature, 7 pages**
EXHIBIT #125	**Mechanism of injury does not predict acuity or level of service need: Field triage criteria revisited, 6 pages**
EXHIBIT #126	**Studies Evaluating Current Field Triage: 1966-2005, 4 pages**
EXHIBIT #127	**Prehospital Care of the Injured: What's New, 17 pages**
EXHIBIT #128	**Reducing Overtriage Without Compromising Outcomes in Trauma Care,10 pages**
EXHIBIT #129	**Prehospital Triage of Trauma Patients: A Trauma Surgeon's Perspective, 4 pages**
EXHIBIT #130	**Trauma Systems, 15 pages**
EXHIBIT #131	**Upcoming Revisions to Field Triage Criteria, 77 pages**
EXHIBIT #132	**North End Stadium: A System Or Mechanism To Upgrade The Existing Structures by Mr. Gupta, 5 pages**
EXHIBIT #133	**Injury Biomechanics Report by Mea Forensic, 35 pages**
EXHIBIT #134	**Curriculum Vitae of Gunter P. Siegmund, PhD PEng, 16 pages**
EXHIBIT #135	**Expert Report Re: Andrew Szabo Inquest by George W. Pearsall, 17 pages**

JULY 8, 2010

EXHIBIT #136	**National Fire Code of Canada 2005, 2 pages**
EXHIBIT #137	**Package of photos 8x10 of railings with plexi-glass (labeled A to F)**
EXHIBIT #138	**Division A Word definitions, terms and abbreviations**

AUGUST 30, 2010

EXHIBIT #139	**5 pages of a PowerPoint presentation of the Office of the Fire Commissioner**
EXHIBIT #140	**3 pages Winnipeg Free Press Article "Attempt to increase safety standards"**

EXHIBIT #141 **Package of photos of baseball stadium and guardrails, 3 pages**

OCTOBER 13, 2010

EXHIBIT #142 **Guiding Principles on Interprofessional Education and Collaborative Person Centred Practice, 16 pages**

EXHIBIT #143 **WRHA Respectful Workplace Policy, 4 pages**

EXHIBIT #144 **Ontario Report dated August 2006, entitled "Improving Access to Emergency Care: Addressing System Issues", 67 pages**

EXHIBIT #145 **Physician Workload Model, 3 pages**

EXHIBIT #146 **Winnipeg Stadium Baseball Stand modifications, 1 large sheet**

EXHIBIT #147 **1 page Statistics of all the hospitals in Winnipeg**

EXHIBIT #148 **17 pages Alternatives to Visits to Emergency Departments and Hospital Admissions**

EXHIBIT #149 **6 pages Manitoba Nurses' Union Collective Agreement**