

Report to the Minister of Justice and Attorney General Public Fatality Inquiry

WHEREAS a Public Inquiry was held at the			Provincial Court House			
in the	he <u>City</u> C (City, Town or Village)		Calgary			
	(City, Town or Village)		(Name	of City, Town, Village)		
on the	14th, 15th and 16th	day of	November	, <u>2005</u> , (and by a year	djournment	
on the	18th	day of	November	, <u>2005</u> ,) year		
before	Judge Catherine M. Skene		M. Skene	, a Provincial Court Judge.		
A jury			inquiry was held into the d			
of Tyler Travis Zeer					16	
		(Nam	e in Full)		(Age)	
of	Calgary, Alb (Residence)			and the following findings were made:		
Date and 1	Time of Death:		September 8, 2004 a	at 3:43 p.m.		
Place:	lace: Alberta Children's Hospital, Calgary, Alberta					
	Classific Confere	cation of Diseases,	Injuries and Causes of Deathat purpose and published	according to the international S ath as last revised by the Intern d by the World Heath Organiza	ational	
Manner of			mode or method of death - The Fatality Inquiries Act	whether natural, homicidal, suid	cidal,	
Accidental						
Circumsta	nces under which Deat	h occurred:				
				er Travis Zeer suffered a subdu in his death on September 8, 2		
			No. of	f additional pages attached:	9	
Recomme	ndations for the prever	ntion of similar dea	aths:			
	ndation 1: Educate athle e and playing of football.	tes/football players	and coaches about the ris	ks and prevention of head trau	ma during	
			No. of	f additional pages attached:	4	
DATED	January 13,	2006	,			

at <u>Calgary</u>, Alberta.

Judge Catherine M. Skene A Judge of the Provincial Court of Alberta

CIRCUMSTANCES UNDER WHICH DEATH OCCURRED

A. SUMMARY

On September 3, 2004, while participating in a preseason high school football practice, Tyler Travis Zeer struck his head in a helmet to helmet hit with another football player. He was participating in a routine football blocking drill, requiring him to block another player who was attempting to intercept a running back. The football drill was supervised by three experienced coaches.

Both players used proper form. Tyler Zeer walked away from the drill, responding to his coach's praise with a smile, but shortly thereafter began to show signs of having suffered a concussion. His condition deteriorated quickly due to subdural bleeding from torn and ruptured blood vessels under his skull and outside his brain (subdural). He lost consciousness shortly thereafter and suffered irreversible brain stem injury due to pressure on his brain stem from the subdural haematoma and reactive brain swelling. Tyler Zeer died in hospital on September 8, 2004.

B. INTRODUCTION

Tyler Travis Zeer, born June 12, 1988 was 16 years old on September 3, 2004. As a Grade 11 student, he was starting his first year of senior high school football at Bowness High School. Equipment was handed out to all players on Wednesday, September 1, during the week before classes started.

In Grade 10, during the 2003 season, Tyler Zeer had played on the Bowness High School Junior Football team, winning the "Offensive Lineman of the Year" award. By all accounts, he was a skilled player, a quick learner and had a lot of heart and drive. It was anticipated by all who knew him and those who knew of him, that he would be a tremendous asset to the senior football team.

C. CALGARY HIGH SCHOOL SPORTS PROGRAM

Bowness High School, a Calgary Board of Education school, is part of the 25 school sports organization that governs all high school sporting events, of both the public board and the Calgary Catholic School District. The Calgary Senior High Athletic Association, a not-for-profit society relies on the provincial sporting group Football Alberta to offer football clinics to players and coaches in the association. Football Alberta has undertaken the task of providing support to all high schools offering a football program to enable each school to have their football equipment inspected on a routine basis.

Each school must take steps to ensure that the football equipment, including helmets, are inspected and certified or recertified for use by availing themselves of the program offered by Football Alberta.

With respect to football, the Calgary Senior High Athletic Association has policies, including Constitutional policies and football rules and guidelines governing the play of football in their schools.

D. BOWNESS HIGH SCHOOL FOOTBALL PROGRAM

The program is a well organized, well funded football program. Mr. Daun Daum, a volunteer coach, was the Bowness High School head football coach in September, 2004. He is a retired full-time teacher and is presently on the substitute teacher list with the CBE. He was in charge of the Bowness High School football program in 2004 and for many years prior. The senior teacher (sponsor) coach was Andrew Crocker, who was also the Athletic Director for Bowness High School in the fall of 2004. Another volunteer coach was Robert Legore, an alumni of Bowness High School, graduating in the late 1970's and a player of football after high school, until the 1988-89 season. The Equipment Manager was Paul Logue, a community volunteer. There were other coaches, six in total in 2004, and volunteers who were instrumental to the efficient running of the football program.

E. BOWNESS HIGH SCHOOL FOOTBALL EQUIPMENT AND ALLOCATION TO PLAYERS

In accordance with the Calgary Senior High Athletic Association guidelines, Bowness High School purchased their own football equipment from their budget and funds the school has raised from the local community. The equipment belonged to the Calgary Board of Education and is entrusted to the Bowness High School coaches and football team, under the authority of the school Principal.

Coach Daum Daun took prime responsibility for all the football equipment and personally purchased and inspected it routinely. As stated earlier, the allocation of the equipment to the senior high school team was done on September 1, 2004 under his supervision.

At that time, the players lined up and with the assistance of coaches and a volunteer equipment manager, chose and were fitted with pads and a helmet from the various stations. It was an assembly line structure, with each station having one or more supervisors helping and assessing the fit of the equipment on the player at that station.

With respect to the selection and fitting of helmets, two individuals, volunteer football coach Robert Legore and volunteer equipment manager Paul Logue attended to the assignment and fit of helmets. Both were well versed in the basic mechanics of fit and sizing of helmets, having been trained by Coach Daum. Legore and Logue assigned and fit helmets for over 100 players that day. Each player, in turn, would try on a helmet or helmets that would be checked at the player's forehead, cheek pads and

chin strap for fit and adjustment. The interior helmet bladder in each helmet would or could be inflated with a portable air pump, as needed, which air pumps were readily available in the locker room, at practice and at football games. The players were not fitting themselves. The fitting was done with the assistance of Coach Legore and Equipment Manager Logue. Neither Legore nor Logue remember fitting Tyler Zeer with his helmet; nor do either of them recall making adjustments to his helmet on September 3, 2004.

F. MOUTH GUARDS

All football players on the Bowness High School football team are required to wear mouth guards during practice and football games. The use of mouth guards is known to reduce the occurrence of concussions.

G. GEORGE HOPKINS – EQUIPMENT MANAGER – CALAGARY STAMPEDERS FOOTBALL CLUB

George Hopkins has been the full-time equipment Manger for the Calgary Stampeders Football Club since 1977. Hopkins reviewed with the Fatality Inquiry the basics of properly fitting a helmet on a player which assessment included checking the fit at the forehead, at the cheeks and the fixing and adjustment of the chin strap and air in the inflatable bladder. Part of the fitting process of a football helmet is assessing how and where it touches the player's brow or forehead. When the helmet is moved side to side, the player's skin on the forehead should move as well, indicative of a snug fit at that part of the helmet. A poorly fitted helmet would typically be one that was too large for the player that could shift or rise on impact.

Hopkins stated in testimony that many of the professional players suffer cuts or bruises on the bridge of their noses from their helmets due to contact with other players or contact with the playing field causing the helmet to shift down onto the nose. The player's back chin strap may be improperly done up, or snap off on impact causing shifting on impact. The helmet may need more inflation of the bladder. Both causes are easily remedied. Properly fitted helmets may still shift and cut a player's nose.

During his testimony in this Fatality Inquiry, Hopkins identified three main manufacturers of football helmets, being Riddel, Adams and Schutt. Riddel and Schutt are preferable brands for high school football, as both are professional grade helmets, suitable for use by Professional, University and high school teams.

A football helmet was produced at the Fatality Inquiry that was purported to be the helmet Tyler Zeer was assigned on September 1, and that he used for football practice on that day, September 2nd and September 3rd, 2004. George Hopkins found it to be a Schutt helmet in excellent condition, with no evidence of excessive wear and tear. It showed little oxidization and had good interior padding and minor scratches on

the shell. The liner was supple indicating that the padding was doing what it was intended to do, absorb the shock of impact. Later in the proceedings, Coach Daum identified the helmet as being purchased in 2002 by Bowness High School, although not necessarily used by a player that season.

In addition to his duties with the Stampeders, George Hopkins teaches clinics to football coaches on equipment fitting through Football Alberta. Further, he works through Football Alberta to assist schools in the maintenance and review and inspection of their football equipment, including assisting the Calgary high schools to get their football helmets dated and recertified in accordance with the manufacturer's specifications.

As a result of Tyler Zeer's death in 2004, prior to the 2005 high school football season, a clinic was conducted by Mr. Hopkins for all 25 high schools in the CHSAA, focusing on proper helmet fitting for high school athletes. Football Alberta was the sponsor of this clinic.

There are certain maintenance guidelines for the helmets. For Schutt helmets, recertification is every two years after the third year. The helmets will be sent back to the manufacturer for this recertification process.

The Fatality Inquiry heard from Coach Daum that the Bowness High School helmets were reviewed and inspected in 2000 and recertified as required. Many more helmets have been purchased since then. All equipment was inspected within a month of Tyler Zeer's death with the assistance of George Hopkins.

H. HELMET FITTING TRAINING

Bowness School head coach Daun Daum attended a football equipment seminar, including a session on helmet fitting, put on by Football Alberta in the spring of 2004. The lead instructor was George Hopkins, Equipment Manager for the Calgary Stampeders Football Club. After the death of Tyler Zeer, this clinic was put on for all head coaches of the 25 high schools in the CSHAA. Other coaches attended as well, including the Bowness School football team Equipment Manager.

I. STUDENT TRAINERS - FIRST AID ASSISTANCE AT FOOTBALL PRACTICE

The Fatality Inquiry heard testimony from three student trainers who were on duty and on site at the Bowness High School senior football practice on September 3, 2004. All three students were beginning Grade 12, having had two years of Athletic Injury course work and practical experience in Grade 10 and 11 respectively. Testifying at the Fatality Inquiry were Cassandra Muise, Dana-Rae McLeod and Nicole Pearson. In Grade 10, sixty students at Bowness High School have the privilege of enrolling in a Sports Medicine – Athletic Injury class, taught by one of the high school's teachers. This class includes instruction in CPR and testing and certification by an outside agency. In Grade 11, the class is culled to forty students who continue their first aid training in Sports Medicine. It is in that year that each student takes a mandatory practicum working with a Bowness High School sports team. Thirty student trainers may enroll in Grade 12 Sports Medicine class and continue to learn about first aid and the diagnosis and management of athletic injuries.

These student trainers are required to be in attendance and actively monitoring the athletes for injury and first aid requirements at all Bowness High School sport practices and games. On the day in question, the trainers each had their own fanny pack containing first aid supplies. In addition there was a larger first aid kit for their use. At least two of the trainers had working cell phones.

J. EVENTS OF SEPTEMBER 3, 2004

1. BEFORE THE FOOTBALL DRILL

Deborah Dollimount, Tyler Zeer's mother, spoke to her son the evening of September 2, 2004 and urged him to seek assistance for his complaint that he suffered a cut to the bridge of his nose as a result of his helmet coming in contact with it when he blocked. While the Inquiry heard that a cut or bruise to the bridge of the player's nose is not uncommon, it was a new and unusual injury for Tyler Zeer. Based on this hearsay evidence, it appears that Zeer's helmet may not have fit him properly, or needed adjustment. Having played football in the fall of his Grade 10 year, he had not previously had that problem with his helmet.

On September 3, prior to the football drill wherein Tyler Zeer got hurt, a student football player, Aaron Brogan attended at the equipment manager to get his chin strap replaced. He noted that Tyler Zeer also attended for assistance with his helmet. Brogan does not know what Tyler Zeer said, to whom Tyler Zeer spoke, or what remedial action, if any, was taken to Tyler Zeer's helmet.

2. THE FOOTBALL DRILL

September 3, 2004 was the third day of practice. On site and supervising one particular drill were three of the Bowness High School coaches, Coach Daum, the head coach, Coach Crocker, the coach of the offensive line and Coach Legore, the coach supervising the linebackers and defensive coordinator.

Numerous players were participating in the organized "Seal Blocking Drill." The purpose of the drill was to simulate a game condition or play where after the quarterback takes the snap from the centre, the ball is handed off to a running back who takes a route or runs through the hole or holes created by his blockers.

Two offensive linemen intercept the defensive linebackers, anticipating where the linebackers would go to intercept the runner, and "seal" off an area, by blocking the linebacker, so it is safe or open for the running back to run through and down field. The two linebackers participating in the drill, attempt to shed the block from the offensive linemen (tackle and centre) and tackle the running back.

Tyler Zeer was an offensive lineman (tackle) participating in this drill. He had participated in a couple of "reps" or repetitions of the drill and had lined up again waiting his turn to participate.

On his last rep, Tyler Zeer executed the drill according to the instruction he received by his coaches. None of the coaches saw the specific contact between Tyler Zeer as offensive lineman and Jeremy Wykes the linebacker. One was instructing another offensive lineman and the other two were watching the whole play and all six players (two offensive linemen, quarterback, running back, two [defensive] linebackers). It was a particularly notable rep as all six players executed their maneuvers in an impressive fashion. Coach Daum congratulated Tyler Zeer as he finished his play and walked past the coach and back in line to take another turn.

Three graduates, alumni Bowness High School football players, were watching this specific football drill and rep. Two of those grads saw Tyler Zeer and Jeremy Wykes, make contact with each other, being lineman and linebacker respectively in the seal blocking drill. Tyler Slaght and Adam Browne, who specifically saw the hit or physical contact between the two players were also impressed with the form and execution by both players, and commented on it. At the inquiry, both graduates of Bowness High School describe the physical contact between the two players as typical of well executed hits that occur in practice and games all the time.

Jeremy Wykes, a student linebacker, described the play with Tyler Zeer as unremarkable. When the two made contact, the first point of contact was their face masks and then chests. Wykes felt fine after the contact with Zeer and suffered no ill effects. It was his recollection that Tyler Zeer walked away from the play in a normal fashion.

Rueben Freisen, captain of the Bowness High School football team in 2004 was also participating in the seal blocking drill and was in the same offensive lineman line that Tyler Zeer was in. He recalls seeing the drill Tyler was in and thinking that it looked "pretty standard." He also recalled hearing a coach congratulate the players. Freisen saw Tyler Zeer in the line after Tyler's last rep and saw him shake his head and blink a couple of times. Friesen suggested to Tyler Zeer that he sit a turn out which he believed Tyler Zeer did. After Rueben Freisen finished his next rep, he noticed that Tyler Zeer was sitting on the field.

3. TYLER ZEER SHOWS EFFECTS OF INJURY

Another student football player practicing on September 3, 2004 was Eric Clark who was starting Grade 12 at the time. He was also participating in the seal blocking drill and in line with Tyler Zeer. Clark, upon finishing his rep, saw Tyler sitting on the ground with his helmet off. Upon going up to him Tyler remarked to Clark that "the world is spinning" and Clark noticed that Tyler Zeer's eyes "were really going crazy." Further Clark noted that Zeer had a "stunned look" on his face. Tyler started falling backwards, whereupon Eric Clark caught him and held him up in his original sitting position. He immediately called for student trainer Cassandra Muise. All three student trainers came running over to assist. Eric Clark told Tyler Zeer to "hold on" and Zeer responded with a single word "dizzy." Eric Clark called for Coach Andrew Crocker who came running over as well.

4. FIRST AID – RESPONSE TO MEDICAL EMERGENCY

Trainer Cassandra Muise got to Tyler Zeer and Eric Clark first and when checking Tyler's eyes noted they were rolled back into his head. Coach Crocker also noticed Tyler Zeer's eyes rolling. Coach Crocker instructed Trainer Nicole Pearson to call 911 for an ambulance. He also instructed her to emphasize to the dispatcher that this was an emergency and that time was of the essence.

While waiting for EMS to arrive, Tyler appeared to have difficulty breathing. His eyes continued to roll into the back of his head, and when his pupils were seen, they were noticeably dilated. His breathing was sporadic and shallow, but according to the trainers, he appeared to respond to the student direction to keep breathing. He also appeared to respond initially to Coach Crocker's direction to squeeze Crocker's fingers. Regardless, Tyler Zeer appeared to the witnesses to be deteriorating rapidly and lapsing into unconsciousness.

EMS and ambulance arrived within minutes and rushed Tyler Zeer to the Alberta Children's Hospital.

5. ALBERTA CHILDREN'S HOSPITAL

At the Alberta Children's Hospital, Dr. Heather Graham was on duty in the pediatric emergency ward. Tyler Zeer presented as a 3 on the Glascow Coma Scale, the lowest score for a non-deceased patient on a scale of 0 to 15. He exhibited no eye movement. His pupils were fixed and dilated and non-reactive to light. It was apparent that the pressure in his skull was quite high and in the emergency ward, he was not breathing on his own. His breathing was being assisted by a breathing tube and there was no gag reflex.

A CT Scan was done immediately. Mild hyperventilation was induced and the medication Manitol was administered, both steps intended to decrease the pressure on Tyler Zeer's brain.

A pediatric neurosurgeon, Dr. Walter Hader was on the emergency ward at the time, and he immediately took over Tyler Zeer's care.

Tyler Zeer underwent brain surgery to relieve a massive haematoma in an attempt to save his life. All medical care was administered in a very timely fashion. Tyler Zeer was on the football field at 5:25 p.m., transported to the Children's Hospital and having his CT Scan at 5:55 p.m. and in the operating room at 6:25 p.m. After his injury, and the first indications that he was in immediate need of medical care, the subsequent transport of Tyler Zeer, diagnosis and treatment was done as fast and efficiently as it could possibly be done.

Regardless, it was Dr. Hader's opinion that Tyler Zeer presented with irreversible brain stem damage prior to the operation, and that his chance of survival was poor. The brain stem damage was a result of the pressure on the brain stem, or the brain herniating through the base of the skull, as a result of the haematoma.

6. BRAIN SURGERY AND CAUSE OF DEATH

Tyler Zeer suffered a concussion injury as a result of a blow to his head. Dr. Hader removed a window of Tyler's skull from the right temporal region back to the parietal region, two-thirds of the right side of his skull, releasing pressure that had built up from a subdural haematoma. There was still active bleeding into the clot. The clot was removed and Tyler's brain was relatively slack for a few minutes. Immediately thereafter, Tyler's brain started swelling, so much so that the skull section removed could not be replaced after the operation.

The clot had caused the septum of the brain to be pushed or shifted right to left over 7 centimetres. That pressure and the reactive swelling of the brain after the removal of the clot caused more severe brain stem injury, resulting among many things, further or continued respiratory malfunction.

The cause of the clot or haematoma was bleeding blood vessels. Dr. Hader identified a bleeding, torn artery and some ruptured or torn bleeding veins caused by traumatic forces to Tyler's head. There was a sufficient blow to the head to move the brain in the intracranial compartment. The blunt force trauma suffered by Tyler Zeer was a relatively low speed, low force hit, compared to forces from a high speed traffic accident. Regardless, Tyler Zeer's brain shifted due to the football block contact. In Tyler Zeer's case, there was an accompanying tear and bleeding to his blood vessels resulted in a subdural haematoma. While head injuries are common in sports, the catastrophic results of subdural haematoma and death, is an uncommon and rare injury. Dr. Hader's review of the literature shows that the chance of a similar catastrophic result from playing football was 1 in 500,000, that being one death for every 500,000 football players.

There is a possibility that Tyler Zeer had an unusual blood vessel that predisposed him to this injury. Dr. Hader was unable to find any evidence that Zeer had a pre-existing condition. An autopsy of Tyler Zeer was not done, which autopsy <u>may</u> have revealed more, possibly identifying a pre-existing condition, or ruling it out.

A previous history of concussion, or a head injury to a football player already suffering from a concussion, would put a football player at greater risk for a similar or worse injury. Second Impact Syndrome can occur when a second head injury or concussion is received before the previous concussion injury has resolved. (Logan, Bell and Leonard, *J. Athl. Train.* 2001 December; 36(4) 433-436)

K. DATE AND TIME OF DEATH

Tyler Travis Zeer passed away, at the age of 16, after being taken off of life support, at 3:43 p.m. on September 8, 2004 at the Alberta Children's Hospital.

RECOMMENDATIONS FOR THE PREVENTION OF SIMILAR DEATHS

Recommendation 1: educate athletes/football players and coaches about the risks and prevention of head trauma during the practice and playing of football.

Recommendation 2: educate athletes/football players and coaches about the recognition of and proper management of head trauma and concussion including return to play guidelines. Risks of playing with a concussion should be reviewed with athletes/football players and coaches and further play prohibited without medical clearance by a physician.

Recommendation 3: the football players' helmets should be fitted properly, prior to use, and the fit should be inspected by trained individuals periodically throughout the football season. The athlete players should be advised of the need to have a properly fitted helmet and urged not to practice or play with a helmet that does not fit them properly. Risks of playing with an improperly fitted helmet should be reviewed with athletes/football players and coaches.

A. Comment on the Fatality Inquiry Evidence

Tyler Travis Zeer died from the effects of a routine football drill, that being blunt force trauma to his head and brain. Direct contact of Tyler's helmet with another player's helmet caused a concussion that led to his death. The other player suffered no injury. Nor did the opposing player find the contact different or unique. Tyler Zeer's death was an unusual event and result. Many players before him and after him, all over North America, have done the same drill, the same way, without the catastrophic result suffered by Tyler Zeer.

A number of questions that arose in this Fatality Inquiry cannot be answered with any certainty.

Could Tyler Zeer's death have been avoided? Based on the evidence heard in the Fatality Inquiry I cannot say with any certainty.

Did Tyler Zeer's helmet fit him properly? It is definitely possible that his helmet did not fit him properly.

Was Tyler Zeer's death contributed to by an improperly fitted helmet? Once again, based on the evidence heard in the Fatality Inquiry, I cannot say with any certainty. It is definitely a possibility. He complained of helmet problems to his mother that are consistent with a helmet that was too large or improperly inflated. Similar symptoms, as told by Tyler Zeer to his mother the night before the blocking drill, may occur with a properly fitted helmet.

Did Tyler Zeer have a pre-existing medical condition that contributed to his death? Dr. Hader did not see any evidence of a pre-existing condition when he performed surgery on Tyler Zeer. I did not understand Dr. Hader's evidence to be that a pre-existing condition did not exist. There was no autopsy performed that may have assisted the Fatality Inquiry to make that determination.

Did Tyler Zeer suffer an earlier concussion in practice and was hit a second time, suffering from Second Impact Syndrome, with the catastrophic result being his death? It is possible. There was no evidence upon which to make that finding of fact. I did hear testimony from Tyler Zeer's mother that he had been complaining of his helmet cutting or bruising his nose during practice, which started two days before his major injury. It may be that he suffered a concussion shortly before the fatal blow and was unaware of it. This is speculation.

Many things went right on September 3, 2004, some of which are as follows:

- Three experienced football coaches were directly supervising the football drill and the football players when Tyler Zeer was injured.
- Three trained and experienced, albeit young, athletic trainers were in attendance at the practice and supervising the play. They were at his side immediately upon being summoned or noticing that a player was down.
- These athletic trainers had working cell telephones, and were able to immediately summon EMS for assistance and transport of Tyler Zeer.
- Each football player, including Tyler Zeer, was fitted with his football equipment by experienced people.
- The head coach, Coach Daum had previously attended an equipment fitting seminar and shared his expertise with his staff.
- The head coach, Coach Daum inspected the football equipment on a routine basis and had the helmets sent out for recertification when required.
- The football equipment and helmets owned and used by the CBE at Bowness High School were new or nearly new, and in excellent condition, due to the fund raising ability of Coach Daum and the financial support of the High School football program by the surrounding community.
- Tyler Zeer was wearing a helmet that was in excellent condition.
- Tyler Zeer had access to staff to repair or replace his helmet, if it did not fit propery or needed adjustment or replacement of straps or brackets.
- EMS transported Tyler Zeer to the Alberta Children's Hospital in a quick and efficient manner, at which point, he was admitted and diagnosed immediately.
- A pediatric Brain Surgeon was on the emergency ward at the Children's Hospital when Tyler arrived and immediately took over Tyler Zeer's care from the emergency physician as required.

B. SUBMISSIONS FROM THE PUBLIC

I received oral and written submissions from Tyler Zeer's family members with respect to the recommendations to be made arising from the evidence in this Fatality Inquiry. The Crown and Calgary Board of Education submitted no recommendations for the prevention of similar deaths.

Following are some of these proposed recommendations with my comments.

Parents should be informed about optional safety equipment that is available for football players. The CBE should require all linemen to wear neck guards.

I do not adopt this recommendation as there is no evidence before the Fatality Inquiry that would lead me to believe that this death, or similar deaths, could have been prevented with the use of further or optional safety equipment. The fact that Tyler Zeer did not have a neck guard did not contribute to his injury or death. This point was specifically addressed by his surgeon, Dr. Hader. A neck guard would not prevent a similar death. I do not adopt this suggestion.

Coaches should be certified in first aid.

I do not adopt this recommendation as there is no evidence before the Fatality Inquiry that would lead me to believe that this death or similar deaths could have been prevented if the coaches were trained in first aid. The student athletic trainers, on the evidence before me, were well trained and on-site at the time of the accident or injury. Nothing the trainers did or did not do, contributed to Tyler Zeer's death.

The athletic trainers should be adults.

The age of the trainers, or their maturity, did not contribute to Tyler Zeer's death. There is no evidence that would support a recommendation that similar deaths would be prevented. I do not adopt this suggestion.

Injuries in football practice should be documented by the High School.

I heard no evidence on this point. I do not know whether injuries during practice or games by Bowness High School players are documented or not. Regardless, this was not a obvious contributing factor to the death of Tyler Zeer in any event. Had Tyler Zeer been playing with a concussion at the time of his injury on September 3, 2004, it may have contributed to his death. See Recommendation 2 above.

Adjustments to equipment should be documented.

Failure to document Tyler Zeer's visit to the equipment manager did not contribute to his death. This recommendation would not prevent similar deaths.

The CBE and the Calgary Senior High Athletic Association should adopt a standard Safety Policy to be followed by all schools.

There are standardized policies, rules and guidelines followed by all member schools in the CSHAA. Failure to have further and specific safety guidelines for all schools, did not contribute to Tyler Zeer's death. CSHAA safety guidelines may assist all sports, athletes and coaches who participate in them to avoid or prevent injury.