



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

Fatality Inquiries Act

WHEREAS a Public Inquiry was held at the Calgary Courts Centre

in the City of Calgary, in the Province of Alberta,
(City, Town or Village) (Name of City, Town, Village)

on the 13th to 17th days of December, 2010, (and by adjournment
year)

on the 24th day of March, 2010),
year

before The Honourable A. J. Brown, a Provincial Court Judge,

into the death of Kathleen Brock 75
(Name in Full) (Age)

Intercare – Southwood Care Centre, 211 Heritage Dr
of SE, Calgary, AB and the following findings were made:
(Residence)

Date and Time of Death: August 7, 2008, 2:58 p.m.

Place: Intensive Care Unit, Foothills Medical Centre, Calgary, Alberta

Medical Cause of Death:

("cause of death" means the medical cause of death according to the International Statistical Classification of Diseases, Injuries and Causes of Death as last revised by the International Conference assembled for that purpose and published by the World Health Organization – The Fatality Inquiries Act, Section 1(d)).

Acute subdural hemorrhage due to blunt force head injuries.

Manner of Death:

("manner of death" means the mode or method of death whether natural, homicidal, suicidal, accidental, unclassifiable or undeterminable – The Fatality Inquiries Act, Section 1(h)).

Accidental

Circumstances under which Death occurred:

See attached.

Recommendations for the prevention of similar deaths:

See attached.

DATED December 3, 2012,

at Calgary, Alberta.

Original signed by

A. J. Brown
A Judge of the Provincial Court of Alberta

Circumstances under which Death occurred

Chronology of events, including relevant medical history, leading up to Ms. Brock's death

June 18, 2007		Kay Brock suffered a left subdural hematoma as a result of an unwitnessed fall in her home.
June 18 - December 31, 2007		Hospitalized at Foothills Medical Centre.
December 31, 2007		Discharged from Foothills Medical Centre to Southwood Care Centre, for long term care and rehabilitation.
January 15, 2008		Begins rehabilitation programming at ARBI (Association for the Rehabilitation of the Brain Injured)
January 27, 2008	1:00 p.m.	Found on floor on her back, with her wheelchair tipped over; she had unbuckled her seatbelt. Suffered a fractured right ankle, as a result.
January 28, 2008	9:45 p.m.	Unbuckling seatbelt and moving herself forward in her wheelchair.
March 24, 2008	10:30 a.m.	On the floor, on her back. Said she had been trying to transfer herself from her wheelchair to her bed, unassisted.
April 13, 2008	10:30 a.m.	Found on her back on the floor beside her wheelchair.
April 14, 2008		As a result of the fall the day before, Ms. Brock's wheelchair was examined and its cushion found to be low on air.
July 20, 2008	11:45 a.m.	Fell on left side out of bed, when reaching for the 'phone.
July 24, 2008	Noon	Handi-Bus driver Ares Adam collects Ms. Brock and secures her wheelchair in the back of the bus, on the driver's side, using the Q-Strait restraining system. He fastens two lap belts and one shoulder belt. Ms. Brock asks that the shoulder belt not be used. Mr. Adam replies that it was required. Ms. Brock shows a bandage on her chest and complains of irritation by the shoulder belt and puts it under her arm, rather than across her chest.
	Between noon and 1:00 p.m.	En route to pick up a second passenger, Mr. Adam makes a turn and, part way through it, hears Ms. Brock say "Ah" and scream. Looking in the rear view mirror, he sees her on the floor, on the right side of her wheelchair. He stops the bus, runs to the back and asks Ms. Brock what happened. She doesn't know, says in answer to his

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		<p>questions that she's fine but also exclaims, "My head, my head." Mr. Adam asks if she wants him to make a 911 call; she declines. Inspecting the wheelchair, Mr. Adam finds the restraints not loose but all the wheelchair belts loose; he discovers the right arm rest of the wheelchair on the floor of the bus. He unbuckles and re-buckles all belts, asks Ms. Brock if she would like some water and carries on to collect his next passenger. Mr. Adam tries to call dispatch but is unable to get through; he then calls his supervisor, Lisa Carriere, who instructs him to write up a driver concern report.</p>
	1:00 p.m.	<p>Ares Adam delivers Ms. Brock to ARBI and believes he tells Mary Anne Ostapovitch about the fall and that Ms. Brock complained of hitting her head. ARBI staff (Levitt, Wells, Ostapovitch) aware of fall but not of hitting head. Ms. Brock very upset, concerned about driver losing his job. Ms. Brock experiencing short term memory problems, a little flustered but not experiencing any pain.</p>
		<p>Mary Anne Ostapovitch calls Richard Bishop of Southland to report fall in Handi-Bus.</p>
	2:52 p.m.	<p>e-mail Bishop/Carriere re: driver's report</p>
	3:18 p.m.	<p>e-mail Carriere/Bishop reporting conversation with Ares Adam</p>
	6:10 p.m.	<p>e-mail Adam/Carriere reporting Handi-Bus incident</p>
	Around 6:30 p.m.	<p>Julie Brock telephones her mother and learns of the fall in the Handi-Bus. Her mother is "pretty sure" she did not hit her head.</p>
		<p>RN Aragon gives Ms. Brock her medications in Southwood dining room; Ms. Brock says that ARBI was fine.</p>
	7:29 p.m.	<p>Ellen Brock telephones her mother from Vancouver and learns of the fall in the Handi-Bus. She asks if her mother hit her head and receives the answer, "no."</p>
	9:30 p.m.	<p>Ellen Brock telephones Southwood and speaks to RN Aragon, relaying her concern that her mother may have hit her head and asking that RN Aragon wake her mother and check for clear eyes, slurred speech, etc. Julie Brock calls and says that she wants her mother seen by the doctor.</p>
	9:50 p.m.	<p>Ellen Brock/RN Aragon: RN Aragon has not yet had a chance to waken Ms. Brock.</p>

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	10:05 p.m.	Ellen Brock/RN Aragon: RN Aragon woke Ms. Brock; her eyes were clear and speech was not slurred. Ellen Brock asks that her mother be woken every one to two hours during the night; RN Aragon is not able to commit, due to staffing issues.
July 25, 2008	early	Julie Brock, Melanie Somers and Kay Brock have a meeting at Julie Brock's home; the purpose of the meeting is to assess Ms. Brock's care requirements so that she can move in with her daughter. Kay Brock seems physically fine, a little quiet.
	8:47 a.m.	Ellen Brock/RN Kaplanis: her mother needs to be seen by the Dr. and have a CT scan.
	9:09 a.m.	Ellen Brock/Oriol Morrison: her mother needs to be seen by the Dr. and have a CT scan.
		Oriol Morrison contacts Dr. Aldridge who, on learning that Ms. Brock's vital signs were apparently normal and she had left for ARBI, said that he would be in on Monday. Also, he himself had been injured.
	9:34 a.m. – 11:12 a.m.	Ellen Brock places repeated calls to her sister, Julie (unanswered), and Southwood, relaying her concern that her mother have a CT scan and be seen by a doctor. The 11:12 a.m. call is to ARBI.
	1:00 p.m.	Julie Brock delivers her mother to ARBI.
	1:50 p.m.	Ms. Brock watching magic show, eating lunch, all is normal.
	2:00 p.m.	Stops eating sandwich, starts slurring, complains of bad headache. Ambulance called.
	2:46 p.m.	Admitted Foothills Medical Centre.
	11:00 p.m.	To OR for surgery to evacuate blood as result of right subdural hemorrhage.
July 25 – August 7, 2008		Physicians monitor Ms. Brock's response to surgery; have numerous family conferences. Ms. Brock is not reviving as hoped and prognosis is not good.
August 7, 2008	2:58 p.m.	Ms. Brock declared dead.

Additional Relevant Facts and Circumstances

1. The Aging Brain – from the testimony of Drs. Andrews, Peets, Lendrum, Hurlbert and Aldridge

The brain floats in spinal fluid within the skull. With age, the brain shrinks and the veins that supply blood to it become stretched and more vulnerable to breaking. Breakage can occur as the result of a blow to the head, certainly, but also with a twisting of the head or even after sitting down hard.

Once a vein breaks, blood accumulates in the brain and pressure builds with the accumulation until the brain components are pushed out of their normal housing. While the building pressure can take hours, days, weeks or even months to manifest itself in observable symptoms of brain injury, once observed, the symptoms advance rapidly from confusion, diminished level of consciousness and drowsiness, through slurring, upset stomach, headache and vomiting, to coma.

Anticoagulants (blood thinners) are often prescribed for elderly patients, to guard against the formation of blood clots that can cause heart attacks or strokes and other brain injuries.

The tradeoff for preventing the formation of blood clots is the heightened risk of brain bleeds. And, a delay factor is introduced to performing safe surgery to evacuate an accumulation of blood, because of the necessity of building back up its clotting capacity.

2. Detection of a Brain Injury – from the testimony of Dr. Peets, Lendrum, Hurlbert and Aldridge

A brain injury can be detected clinically, that is, by examination and observation (assessing neuro vital signs), or by diagnostic imaging (a CT – computerized tomography – scan).

A CT scan will show a brain bleed even if the patient is still asymptomatic.

Dr. Lendrum recommended that anyone on the blood thinner Coumadin (Warfarin) who has had a fall, with or without a blow to the head, go to a hospital Emergency Department for a CT scan.

Dr. Hurlbert testified that a neuro vital exam is a reliable diagnostic tool when repeated every half hour to hour for a serious head injury, or every couple of hours for a less serious injury, for the first 24 hours. The assessor looks for signs of a deteriorating condition over time.

3. Wheelchair, Handi-Bus Tie-Downs and Bed Side Rails

Before her fall from her wheelchair aboard the Handi-Bus on July 24, Ms. Brock had three times fallen out of it, in January, March and April, and once been seen

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unbuckling her seatbelt and moving forward. The day after the April fall, the wheelchair seat cushion was inspected and found to be low on air.

On July 24, after Mr. Adam had tied down the wheelchair with the Q-Strait system, in accordance with his training, Ms. Brock complained about an irritation to her skin, either caused or exacerbated by the shoulder belt.

After the fall, Mr. Adam observed that all belts were loose.

In addition to the three earlier falls from her wheelchair, Ms. Brock also fell from her bed on July 20, 2008, when reaching for the telephone. Her bed side rail was down, according to her preference, although her daughters had several times requested of Southwood staff that the side rails be kept up.

4. Changes made since Ms. Brock's fall on the Handi-Bus

Southland: 1. Buses now have cameras installed, so that the driver can view his passengers. 2. A new training module was adopted, with enhanced focus on wheelchair restraints. 3. Access dispatch staffing was increased. 4. Monthly safety meetings are now held. 5. Mr. Adam was given refresher training. 6. An incident involving injury to a patient is now reported as an accident.

Southwood: Neurovital assessment criteria have been added to the procedures sheet for patients who have fallen and injured the head.

Recommendations for the prevention of similar deaths

The tragic death of Kay Brock raises issues in two particular aspects of effective delivery of health care services: 1. the appropriate balancing of uses of finite public resources; and, 2. improving communication, among different health disciplines or professions, and between health professionals and the general public.

1. The appropriate balancing of uses of finite public resources:

Neurosurgeon Dr. Hurlbert testified that it would be far too costly to do CT scans of every elderly person on blood thinners who suffered a fall.

In her written submissions to the inquiry, Ms. Ellen Brock suggested that the cost to the public of her mother's six and a half month hospital stay in 2007 would have far exceeded the cost of CT scans after falls of elderly persons.

These two positions usefully frame the larger public debate that needs to take place over care of the elderly, particularly in light of the well known demographic of the aging Baby Boomer generation. And, Dr. Aldridge's testimony about the very low annual enrolment by physicians in a residency in Geriatrics raises concern about the ability to make the public debate an informed one.

2. Improving communication among different health disciplines or professions, and between health professionals and the general public:

Despite the fact that ARBI, Southwood and Ms. Brock's doctors were all professional individuals or organizations involved in delivery of health care services to a 75-year-old on blood thinners with a previous history of stroke and brain bleed, the compartmentalized context in which each was providing its services inhibited timely sharing of important information.

Similarly, better communication of the seriousness of a fall for a person on blood thinners, would certainly have changed the approaches taken by people not medically trained, such as the Handi-Bus driver, the Southland company personnel and the Southwood aides.

With these issues in mind, the following recommendations are made for the prevention of deaths similar to that of Ms. Brock:

For Alberta Health Services:

1. That there be a Public Awareness Campaign created to inform of the dangers to health of persons on blood thinners who suffer a fall (similar to campaigns for recognizing the signs of a heart attack, etc.).
2. That a task force be convened with the College of Physicians and Surgeons of Alberta, College and Association of Registered Nurses of Alberta, Alberta College of Occupational Therapists, Physiotherapy Alberta and associations for the brain injured, to develop recommendations to address the following aspects of delivery of health services to the elderly generally and, particularly, to those recovering from brain injury:
 - a. Development of a model of collaborative health care, possibly a health centre, grouping all disciplines, services and laboratory support, to improve information sharing and cost effective provision of diagnostic imaging services;
 - b. Conduct demographic research to track the aging of the population and analyze the resultant needs for specialists in Geriatrics;
 - c. Develop a plan with the universities and colleges to graduate, over the next 10 years, the requisite number of specialists in Geriatrics.

For Southland:

1. That all staff, but especially drivers, receive training about the serious risk to health of a fall, rough handling or head injury to elderly patients on blood thinners.
2. That all Handi-Buses be equipped with voice communication and panic button capacity for passengers to communicate with the driver.
3. That another review of Q-Straint and other tie-down systems be conducted, in light of the information about the risk to health of falls for passengers on blood thinners, to ensure, first, that the most secure system is used and, secondly, that it is made as comfortable as possible for the passenger.
4. That, in consultation with medical trainers, a response protocol be developed with a graduated degree of urgency, e.g., if a passenger complains of a blow to

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- the head, if a fall or shake occurs and it is not known whether or not the head was struck, etc.
5. That drivers be trained to use the “second check” system described by Mr. Slavik in Exhibit 14, Ms. Ellen Brock’s submissions to the inquiry, that is, a voicing aloud of each securing of the restraint.

For Southwood:

1. That all staff receive training about the serious risk to health of a fall, rough handling or head injury to elderly patients on blood thinners. All staff should be examined on the subject, orally if written English is weak, and the training should be repeated at least twice a year.
2. That, in light of the seriousness of falls, patients’ wheelchairs be examined thoroughly and regularly, to ensure that they are secure and comfortable.
3. That side bed rails be raised for patients who are at risk of life-threatening injuries from falls and that an educative consultation (with family members and a physician) be conducted if the patient himself or herself is resisting the raising of the rail.
4. That, if a CT scan has not been done, neurovital signs be assessed regularly for 24 hours after a witnessed or reported fall.

Appendix A – Counsel appearing at the Fatality Inquiry

Ms. Nancy A. McCurdy and Mr. Casey Smith, Counsel for the Minister of Justice and Attorney General

Ms. Stacy Petriuk and Mr. Andrew Culos, Counsel for the Next of Kin of Kathleen Brock

Mr. Derrick S. Pagenkopf, Counsel for Southland Transportation

Mr. Blair R. Carbert, Counsel for Alberta Health Services

Appendix B – Witnesses called at Fatality Inquiry

1. Dr. Sam Andrews, Medical Examiner
2. Moyra Chalk, RN, Southwood employee
3. Richard Bruce Bishop, Access Calgary employee
4. Ares Adam, Handi-Bus driver
5. Ziad Halid, Southland trainer and driver
6. Dwight Andrew Kawalik, Southland compliance auditor, formerly Manager of Safety and Loss Prevention
7. Thomas Jezersek, Southland President, formerly General Manager
8. Julie Anne Brock, daughter of Kay Brock
9. Melanie Somers, Occupational Therapist, Community Health Coordinator
10. Rose Aragon, RN, Southwood employee
11. Angela Levitt née Alanko, ARBI employee
12. Sarah Dezall, ARBI employee, Program Assistant
13. Rosemary Bergland, support worker for Kay Brock at ARBI
14. Jim Wells, Rehab worker, ARBI
15. Mary Anne Ostapovitch, Physiotherapist, ARBI Program Director
16. Ellen Elizabeth Brock, daughter of Kay Brock
17. Lori Jean Kaplanis, RN, Southwood employee
18. Oriel Veronica Morrison, Vice-President, Clinical Services and Community Development, Intercare (overseeing Southwood and other facilities)
19. Dr. Adam David Peets, Critical Care
20. Dr. David Lendrum, Staff Physician, Foothills Medical Centre and Peter Lougheed Hospital
21. Dr. Robin John Hurlburt, Neurosurgeon
22. June Mary Read, Assistant General Manager, Southland
23. Dr. Leonard Aldridge, Long Term Care Physician, Southwood

Appendix C – Exhibits

1. Exhibit Binder
2. Dr. Andrews' curriculum vitae
3. diagram marked by Ares Adam
4. maintenance records from Southland
5. certificate of accreditation
6. DVD of Policies and Procedures Manual
7. SSEP report
8. discipline information
9. training documents for Ares Adam
10. Intercare documents
11. Julie Brock's submission
12. Ellen Brock's submission
13. Summary of changes
14. Augmented submissions from Ellen Brock
15. Intercare letter
16. Dr. Aldridge's letter
17. Rogers' telephone records
18. Ellen Brock's Rogers' statement of August 2, 2008 and Telus Statements of July 27 and August 27, 2008