DOI: http://doi.org/10.4038/sljfmsl.v13i0.7914

Medico-Legal Death Investigation Systems – Canada

Daniel S. Smyk[1]*, Michael S. Pollanen[1,2,3]

[1]*Ontario Forensic Pathology Service, Toronto, Ontario, M3M 0B1, Canada*
[2]*Department of Pathobiology and Laboratory Medicine, University of Toronto, Toronto, Ontario, M5S 1A8, Canada*
[3]*Tanz Centre for Research in Neurodegenerative Diseases, University of Toronto, Toronto, Ontario, M5S 1A8, Canada*

ABSTRACT

Death investigations within Canada are conducted at a provincial or territorial level, with medico-legal systems being either Coroner or Medical Examiner based. Each province or territory has defined legislation which guides the death investigation process. Despite similar frameworks, great variation exists in the implementation of the legislation. This paper will outline death investigation systems within Canada, including the legislative framework for each system. An overview of forensic pathology facilities as well as educational programs in forensic pathology training will also be provided.

Keywords: Coroner; death investigation; forensic pathology; medical education; Medical Examiner.

Corresponding Author: Daniel S. Smyk
daniel.smyk@ontario.ca
ORCID iD: https://orcid.org/0000-0003-1711-5077

ARTICLE HISTORY
Received: 14.03.2022
Received in revised form: 04.05.2022
Available online: 30.09.2022

INTRODUCTION

Death investigations within Canada are conducted at a provincial or territorial level, with medico-legal systems being either Coroner or Medical Examiner based. Before continuing with a description of these systems within Canada, it is necessary to provide several fundamental definitions which apply to death investigation within the Canadian context. These definitions are as follows: a medical examiner is a physician with specialty training and recognized certification in anatomical or general pathology, and (usually) subspecialty training and certification in forensic pathology. Some jurisdictions appoint non-pathology trained physicians as medical examiners; however those medical examiners must defer cases requiring a postmortem examination to a medical examiner with pathology certification. The medical examiner is responsible for overseeing the entire death investigation process and may delegate investigative aspects to others (such as a medico-legal investigator which is described below). A coroner is an individual who is responsible for death investigation and are usually appointed. A coroner may seek the expertise of a pathologist to determine the cause of death, but ultimately the coroner certifies the cause and manner of death. Most coroners in Canada are laypersons with no training in medicine. Some provinces (such as Quebec) appoint coroners with a background in law. Other provinces (Ontario and Prince Edward Island) require coroners to be medically trained and registered physicians. Essentially all death investigation systems in Canada aim to answer the so called 'five questions', which is what they will be collectively referred to as in this paper. These five questions are 'who' (the identity of the deceased), 'when' (date and time of death), 'where' (location of death), 'how' (the medical cause of death), and 'by what means' (manner of death). Recognized manners of death in Canada are homicide, suicide, accidental, natural and undetermined. Finally, the term 'medico-legal investigator' also known as 'medical examiners investigator' or 'medical investigator' refers to individuals with prior training and experience in nursing, paramedical work, or as prior police officers. These individuals will assist medical examiners in collecting data (mostly surrounding history, scene and circumstances) for their investigation. The investigators are also usually the liaison person between next of kin and the medico-legal system investigating a death.

Each province or territory has defined legislation which guides the death investigation process (see reference section for links to each legislative document). Certain types of deaths which require medico-legal investigation by a coroner or medical examiner are defined within the legislation, as is the authority to investigate. When such a death occurs, typically the police, attending physicians, nursing home staff and-or first responders will report the death to the relevant

death investigation authority, who will triage the case, decide whether the death should be investigated as per legislation, and if so, will take charge of the investigation. Autopsy/postmortem examinations may be conducted as part of a death investigation, and consent from next of kin is not legally required. There is no national death investigation system[1]. Canada collects data regarding death including the cause of death and demographic details in the Canadian Coroner and Medical Examiner Database[2].

Coronial systems originated from the original British coronial system, and are in place in Yukon Territory, Northwest Territories, Nunavut, British Columbia, Saskatchewan, Ontario, Quebec, New Brunswick and Prince Edward Island. Medical Examiner systems (originating from the model in the United States) are in place within Alberta, Manitoba, Nova Scotia, and Newfoundland and Labrador.

YUKON TERRITORY

The Yukon Coroner's service is a lay coroner-based system which conducts death investigations as well as inquests. The Chief Coroner is based in Whitehorse and appoints community-based coroners throughout the territory. Legislation guiding death investigation is within the *Coroners Act*[3]. Community based coroners are alerted to certain types of deaths defined under the act, and a determination is made if a coronial investigation is required. Community based coroners collect data regarding the history, scene and circumstances, and determine whether a postmortem examination is required, or whether the cause and manner of death can be certified without an examination. As there are no forensic pathology units within the territory, cases deemed to require an autopsy are transported to British Columbia, where pathologists conduct an autopsy and provide the report to the coroner.

Inquests are conducted within the territory under section 41 of the *Coroners Act.* Inquests are heard by a six-member jury who are to determine answers to the five questions. Recommendations may be provided at the conclusion of the inquest.

NORTHWEST TERRITORIES

Death investigation in the Northwest Territories (NWT) functions under a lay coronial system, with the Chief Coroner appointing community Coroners, in similar fashion to the Yukon Territory. The service is guided by the *Coroners Act*[4]. Unnatural, unexpected, unexplained or unattended deaths are investigated by the coroner's service. As there is no forensic pathology service within the territory, decedents are transported and examined by pathologists working in the Medical Examiner system in the province of Alberta (see below). Inquests are conducted by the Chief Coroner and a six-person jury to answer the five questions. The inquest functions to reveal the facts surrounding the death, and recommendations may be made to prevent similar deaths.

NUNAVUT

Death investigation in Nunavut is conducted in a similar fashion to the other territories, with a lay Coroner system lead by the Chief Coroner who appoints investigating coroners dispersed throughout the territory. The guiding legislation is the *Coroner Act*[5]. Coroner's investigations are conducted in all sudden, unnatural, unexpected, unattended and unexplained deaths in the Territory. If a postmortem examination is required, the decedent is transported to Ontario for examination. Fact finding inquests are conducted with a view to answer the five questions. Recommendations can be made to prevent similar deaths.

BRITISH COLUMBIA

The coroner service of British Columbia is led by the Chief Coroner (currently a lawyer), and functions under the *Coroners Act*[6], with a scope of practice defined in the *Coroners Regulation*[7]. The service investigates all unnatural, sudden and unexpected, unexplained or unattended deaths in the province, which includes all deaths of individuals under 19 years of age. Investigations seek to answer the five questions. Autopsy examinations are conducted by pathologists in various hospitals throughout the province.

Inquests are conducted as fact findings proceedings, with recommendations to improve public safety and prevent death in similar circumstances. Death Review Panels function as inquests which examine groups of deaths with similar factors[8].

ALBERTA

A medical examiner system is in place within Alberta, known as the Office of the Chief Medical Examiner (OCME). The legislative framework is codified within the *Fatality Inquiries Act*[9]. Investigations aim to answer the five questions. Reported deaths are triaged by 'medical examiner investigators', who (in the urban centers) attend scenes of death and collect information regarding the history and circumstances of the death; this role is delegated to RCMP officers in more remote/rural areas. This information is provided to the assigned medical examiner in the case, who may conduct a postmortem examination, and determines the cause and manner of death at the conclusion of their investigation. The Chief Medical Examiner is required to be a forensic pathologist. Previously, rural

medical examiners (usually non-pathology trained physicians) investigated deaths in more remote regions. In the event an autopsy examination was required, the case would be referred to a medical examiner with pathology certification. Rural medical examiners are currently not utilized, and all cases are referred to central mortuaries in Edmonton or Calgary and are examined by medical examiners in those locations with expertise in forensic pathology.

Fatality Inquiries are conducted in certain deaths and are led by the Fatality Review Board (consisting of a lawyer, a physician and a lay person). Much like coroners inquests, the aim is to objectively address the five questions of a case, and possibly provide recommendations to prevent similar deaths.

SASKATCHEWAN

Death investigation in Saskatchewan is a lay coroner-based system led by the Chief Coroner of Saskatchewan, and functions under legislation comprised of *The Coroners Act (1999)* and *The Coroners Regulations (2000)*[10]. All sudden, unexpected and unnatural deaths are investigated, with appointed coroners being dispersed throughout the province. Forensic pathologists are contracted to conduct postmortem examinations in cases requiring such examination as determined by the investigating coroner.

Fact finding coroners inquests are conducted before a six-person jury. Certain types of deaths require a mandatory inquest (such as those in custody), whereas others are discretionary. Inquests aim to answer the five questions and can provide recommendations to prevent similar deaths.

MANITOBA

Death investigation in Manitoba is conducted in a medical examiner system under *The Manitoba Fatality Inquiries Act*[11]. The Act outlines the types of deaths to be reported to the medical examiner and provides the Chief Medical Examiner the authority for the investigation of all unexpected and violent deaths occurring within the province. Medical doctors throughout the province are appointed as Medical Examiners and carry out death investigations on behalf of the Chief Medical Examiner's Office and are assisted in their investigation by medical examiner's investigators or police officers. Postmortem examinations are conducted by Medical Examiners (qualified forensic pathologists) in Winnipeg.

The Chief Medical Examiner may call an inquest if they feel the general public will benefit from the information made public during such a hearing. Inquests are heard in provincial court in front of a judge, with a Crown Attorney representing the public interest, and may or may not include a lawyer to represent next of kin and cross-examine witnesses. Inquests examine the facts surrounding cause and manner of death, and recommendations may be given by the judge at the conclusion of the hearing.

ONTARIO

Death investigation in Ontario is conducted under a Coronial system (Office of the Chief Coroner or OCC) with all coroners (including the Chief Coroner) being trained physicians. The legislative framework is within the *Coroners Act*[12], which includes guidance as to what types of deaths are to be investigated. These include deaths that occur suddenly and unexpectedly, deaths at a construction or mining site, deaths while in police custody or while a person is incarcerated in a correctional facility, deaths when the use of force by a police officer (or related official) is the cause of death, and deaths that appear to be the result of an accident, suicide or homicide. Investigating coroners respond to and investigate reportable deaths. Investigating coroners are supervised by Regional Supervising Coroners. In cases requiring postmortem examination, the decedent is referred one of several units that are under the auspices of the Ontario Forensic Pathology Service (OFPS)[13], which is a separate entity but guided under the *Coroners Act*. Pathologists conducting examinations for the OFPS must be on a register maintained by the Chief Forensic Pathologist, with all suspicious or criminal cases being examined by 'Category A' pathologists who must be certified forensic pathologists (similar to 'Home Office' registered pathologists in the United Kingdom). Non-criminal cases may be conducted by other pathologists on the register (including those without forensic pathology qualifications but experience in autopsy pathology). The OFPS maintains a robust peer review/quality review process of examined cases. Of note, the first forensic pathology training program in Canada was established within the OFPS in Toronto (see below).

Conclusions regarding the cause of death as well as the type of examination performed are collaborative between the OFPS and the OCC. Investigating Coroners and/or the Regional Supervising Coroners are responsible for determining the manner of death.

Inquests are conducted as either mandatory inquest in certain types of deaths, or discretionary inquests which are at the discretion of the Coroner[14]. A jury of five is present at inquests, where the objective facts of a death are presented. As in other jurisdictions, the 'five questions' are addressed. Recommendations to prevent similar future deaths may be made at the conclusion of the inquest.

QUEBEC

Death investigation in Quebec is based on a legal (ie. Lawyer based) coronial system. The legislative framework is codified within the *Coroners Act*[15]. Coroners work under the supervision of the appointed Chief Coroner and Deputy Chief Coroners. Most cases requiring postmortem examination are sent to designated hospitals and conducted by (non-forensic) pathologists, whereas criminal and suspicious cases are referred to the 'Laboratoire de sciences judiciaires et de médecine légale' based in Montreal and examined by forensic pathologists. Inquests are ordered by the Chief Coroner in cases which have public interest. Information regarding the 'five questions' is addressed, and recommendations may be made.

NEW BRUNSWICK

A lay coronial system is in place in New Brunswick with the legislative component being codified in the *Coroners Act*[16]. As with many jurisdictions, investigations aim to answer the 'five questions. Regional coroners investigate reportable deaths and are under the supervision of the Chief Coroner and the Deputy Chiefs. Postmortem examinations are conducted in local hospitals, largely by non-forensic trained pathologists. Inquests may be conducted by the Chief Coroner, Deputy Chief Coroner or regional coroners. Certain deaths are required to undergo a mandatory inquest, including when a worker dies as a result of an accident occurring in the course of their employment, at or in, a woodland operation, sawmill, lumber processing plant, food processing plant, fish processing plant, construction project site, mining plant or mine, including a pit or quarry. Recommendations may be made to prevent similar deaths.

PRINCE EDWARD ISLAND

Coroners in Prince Edward Island (PEI) are medical doctors who are under the direction of the Chief Coroner, and work under the *Coroners Act*[17]. Deaths to be investigated are defined within the act, and investigations aim to answer the 'five questions'. Non-criminal postmortem examinations are conducted in hospitals by non-forensic trained pathologists, whereas criminal or suspicious cases are examined in neighboring Halifax (province of Nova Scotia). Legislation regarding inquests is also within the act, including which cases require a mandatory inquest. The *Coroners Act* provides guidance as to the format of inquests, including the requirement for a six-person jury who attempt to answer the 'five questions' by examining the facts of the case. Recommendations may be provided at the end of an inquest.

NOVA SCOTIA

The Nova Scotia Medical Examiner Service is responsible for determining the cause and manner of death in circumstances that are defined in the *Fatality Investigations Act*[18]. This act includes authority to the medical examiner to conduct an investigation, with a view to resolve the five questions. Medical Examiners investigate deaths throughout the province and are supported by medico-legal investigators. Autopsy examinations are conducted in a central mortuary in Halifax.

Death Review Committees review the facts and circumstances of one or more deaths and may provide recommendations to prevent similar deaths. Several types of committees exist.

NEWFOUNDLAND AND LABRADOR

The medico-legal investigation of death in Newfoundland and Labrador is based on a medical examiner system led by the Chief Medical Examiner, with legislation codified in the *Fatalities Investigations Act*. All medical examiners are physicians and are assisted by appointed medical investigators. Autopsy examinations on non-criminal/non-suspicious cases are conducted by hospital pathologists throughout the province, and forensic pathologists based in St. John's conduct examinations on suspicious deaths, homicides and paediatric deaths.

Death Review Committees review the facts and circumstances of one or more deaths and may provide recommendations to prevent similar deaths and may also suggest that a public inquiry be held in some deaths (such as those with impact on public safety). Committee members are selected by the Lieutenant-Governor in Council, and always include the Chief Medical Examiner. Several types of committees exist (such as those reviewing child deaths).

FORENSIC PATHOLOGY TRAINING IN CANADA

Forensic pathology was recognized as a subspecialty of anatomical pathology in Canada in 2003. The first training program in Canada was established in 2008 in Toronto (now known as the Provincial Forensic Pathology Unit) and is still currently active. The Toronto program also accepts trainees from abroad and is actively involved in forensic pathology capacity development. Subsequently, other programs within Canada have come to fruition in Ottawa, Hamilton (now closed), and Edmonton. All programs in Canada must be university affiliated, accredited by the Royal College of Physicians of Canada, and have a designated budget separate from the service budget. All programs in Canada are one year in length where the trainee is

immersed in and responsible for postmortem examinations and death investigations under supervision. There is also a didactic component to the training. The end of training is marked by a written examination and certification by the Royal College of Physicians of Canada.

Prior to 2008 there was no accredited program of forensic pathology training within Canada[20], and most certified forensic pathologists originated from the United Kingdom or the United States or were Canadian trained physicians with postgraduate forensic pathology training in the United States or the United Kingdom, or by 'grandfathering' of hospital-based pathologists who maintained a medico-legal autopsy practice over several years.

MEDICO-LEGAL FACILITIES IN CANADA

Most medico-legal postmortem examinations in Canada are conducted in hospitals, some of which have designated forensic pathology units for such practices. Many facilities are inadequate or outdated for contemporary forensic pathology practice. Designated facilities for medico-legal autopsy currently exist in Alberta (Edmonton and Calgary), Toronto, Montreal and Halifax. The medical examiner's office in Manitoba operates from a hospital mortuary with a designated space for medico-legal autopsies. The only facility to have computer tomography access (as well as medical resonance imaging) is based in the Toronto facility.

CONCLUDING REMARKS

Just under half of all death investigation systems in Canada are medical examiner based, where individuals with postgraduate training in anatomical or general pathology, in addition to forensic pathology, lead death investigations. The remaining systems are coronial based.

Despite similarities among systems, great variation exists in framework and implementation of the legislation[1]. There are no national standards of practice, no national training scheme or certification for coroners (which is a statutory role), no defined performance outcome measurement, no defined workload measures, and no nationally defined quality management guidelines or programs[21]. Types of cases investigated, qualifications of death investigators, and autopsy rates also vary greatly among the provinces and territories.

Regardless of differences that may exist in the framework and practice of death investigation systems, there are three fundamental principles of a modern, well-developed, public death investigation system: service, research and education. Adherence to these principles allows for robust investigations that benefit public health and safety as well as justice (service), advances knowledge of forensic pathology and forensic sciences (research) and promotes intellectual stimulation and long-term longevity of the specialty (education). The credibility of any system relates to the extent to which they develop these three principles.

REFERENCES

1. Kelsall D, Bowes MJ. No standards: medicolegal investigation of deaths. *Canadian Medical Association Journal*. 2016 Feb 16;188(3): 169. https://doi.org/10.1503/cmaj.160041.
2. Statistics Canada Canadian Coroner and Medical Examiner Database: Available from: https://www150.statcan.gc.ca/n1/pub/82-214-x/2012001/int-eng.htm
3. Yukon Coroners Act. Available from: https://laws.yukon.ca/cms/images/LEGISLATION/acts/coroners.pdf
4. Northwest Territories Coroners Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/coroners/coroners.a.pdf.
5. Nunavut Coroners Act. Available from: http://www.nupli.ca/index.php/website-en.
6. British Columbia Coroners Act. Available from: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/00_07015_01.
7. British Columbia Coroners Regulation. Available from: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/298_2007.
8. British Columbia Death Review Panel. Available from: https://www2.gov.bc.ca/gov/content/life-events/death/coroners-service/death-review-panel.
9. Alberta Fatality Inquires Act. Available from: https://www.qp.alberta.ca/1266.cfm?page=F09.cfm&leg_type=Acts&isbncln=9780779822584&display=html.
10. Saskatchewan Coroners Act and Regulations. Available from: https://www.saskatchewan.ca/government/government-structure/boards-commissions-and-agencies/saskatchewan-coroners-service#legislation.
11. Manitoba Fatality Inquiries Act. Available from: https://web2.gov.mb.ca/laws/statutes/ccsm/f052e.php.
12. Ontario Coroners Act. Available from: https://www.ontario.ca/laws/statute/90c37.
13. Ontario Forensic Pathology Service. Available from: https://www.ontario.ca/document/ontario-forensic-pathology-service-annual-report-april-1-2019-march-31-2020/what-we-do.
14. Inquests in Ontario. Available from: https://www.ontario.ca/page/coroners-inquests.
15. Quebec Coroners Act. Available from: https://www.legisquebec.gouv.qc.ca/en/document/cs/C-68.
16. New Brunswick Coroners Act. Available from: https://laws.gnb.ca/en/showfulldoc/cs/C-23//20220302.
17. Prince Edward Island Coroners Act. Available from: https://www.princeedwardisland.ca/sites/default/files/legislation/c-25-1-coroners_act.pdf.
18. Nova Scotia Fatalities Investigations Act. Available from: https://nslegislature.ca/sites/default/files/legc/statutes/fatality%20investigations.pdf

19. Newfoundland and Labrador Fatalities Investigations Act. Available from: https://www.assembly.nl.ca/legislation/sr/statutes/f06-1.htm
20. Lett D. National standards for forensic pathology training slow to develop. *Canadian Medical Association Journal.* 2007;177(3): 240-241. https://doi.org/10.1503/cmaj.070881.
21. Pollanen MS, Bowes MJ, VanLaerhoven SL, Wallace J, editors. *Forensic science in Canada: a report of multidisciplinary discussion; 2013. Available from:* www.crime-scene-investigator.net/forensic-science-in-canada.pdf.