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## Investigation of Suspicious Pediatric Deaths

The Office of the Chief Coroner for Ontario (OCCO) investigates approximately 250 pediatric deaths each year. The vast majority of these deaths have a natural cause. About 35 to 40 pediatric deaths will ultimately be classified as undetermined. Up to 25 pediatric deaths initially seem criminally suspicious each year, but only five to 15 will eventually be classified as homicides or criminally suspicious deaths. Thus, a death originally criminally suspicious may, as the death investigation unfolds, cease being so. The reverse is equally true: a case that raises no concerns in the beginning may become criminally suspicious because of information that comes to light during the death investigation.

Several organizations and professionals play a role in the investigation of a suspicious pediatric death in Ontario. Coroners, police officers, pathologists, Crown counsel, and local child protection authorities may all investigate different aspects of the death. These professionals work together in what may loosely be described as Ontario's death investigation system.

The objective of the death investigation system is to ensure that every death is explained and no death is overlooked, concealed, or ignored. It also provides an essential service to the administration of justice. The coroner (who may be assisted by a pathologist and other medical experts) is responsible for initially determining how, where, when, and by what means a person died. The coroner will make the determination of whether a death was due to natural causes, accident, suicide, or homicide (as that term is used in OCCO policies, not the *Criminal Code*, RSC 1985, c. C-46), or whether the cause of death was undetermined.

The police are responsible for collecting evidence and for laying criminal charges where the evidence, including expert opinions regarding cause of death, supports those criminal charges. The local child protection authority may intervene with the family, where warranted, if there are surviving siblings who may be in need of protection.

If criminal charges are laid, Crown counsel will determine whether there is a reasonable prospect of conviction, and, if there is, will prosecute the accused at trial.

## **A HYPOTHETICAL DEATH INVESTIGATION: TORONTO, 1997**

I will describe “who does what” through a hypothetical, but typical, pediatric death investigation. This investigation involves the death of an eight-month-old child who died at home in Toronto in 1997. The death was considered to be suspicious and ultimately resulted in criminal charges. The procedures and practices generally reflect those used at the time and location of the death investigation. They matter because the roles of the various participants in the death investigation system have varied over both time and place. I have chosen 1997 because the OCCO introduced several important initiatives in 1995, and they are reflected in the example.

As I will describe in other parts of my Report, remote First Nations communities and other Northern Ontario communities have not, generally, received the same level of death investigation as is described in this example. For example, most often a coroner does not travel to the death scene in these remote communities, and the communication between the coroner and the family may not be as frequent as that described below. In my view this disparity must be addressed, and I make recommendations to do so later in my Report.

### **The Initial Police Investigation**

Our hypothetical example begins with a distraught mother calling 911 about her eight-month-old daughter who appeared to be lifeless in her crib. In response, the 911 operator dispatched the police, ambulance personnel, and the fire department to the house.

Police officers must approach pediatric deaths with care and compassion. They must collect all relevant evidence and investigate thoroughly to determine what happened. At the same time, they must take care not to unnecessarily compound the grieving parents’ profound sense of loss, guilt, and depression.

In our example, by the time the police arrived, the ambulance personnel had concluded that the child was dead. Police have a duty under the *Coroners Act*, RSO 1990, c. C.37, to notify the coroner of the death where an officer has reason to believe that a deceased person died suddenly and unexpectedly, or as a result of violence, negligence, or misconduct. The death of this previously healthy infant

clearly met the definition of a sudden and unexpected death. Whether or not the officers observed anything suspicious, they were obliged to investigate and report this sudden and unexpected death.

To assist with this process, the OCCO published guidelines that police may use when collecting evidence in cases of sudden and unexpected death of children under the age of two. It was recommended that officers at the scene report on the circumstances of the child's death, arrange identification and labelling of the body, arrange transportation of the body to a mortuary, and investigate further if there are suspicious circumstances. In addition, the police were to look for any evidence of injury to the child.

If the police suspected that the deceased child had been abused, and there was a surviving sibling in the house, they had an obligation to report their suspicions to the local children's aid society (CAS), which would then conduct its own investigation into the family's situation. (At the time of our example, 1997, information-sharing practices among the police, the coroner, and the CAS varied from one community to another.) If the CAS determined that a surviving sibling was at risk, it would begin proceedings to either remove the suspected offender from the home or have that child removed from his or her family and placed in protection. Those proceedings would run in parallel with any criminal investigation, and in many cases would conclude long before any criminal trial. Child protection proceedings may or may not make use of the pathologist's evidence.

## The Coroner's Initial Role

Because the child died in Toronto, the police officers notified the coroner by calling the coroners' dispatching service. The dispatcher then contacted the coroner on call at that time. The dispatcher made no attempt to match the type or complexity of the case with the skills or experience of the coroner assigned to it.

In Ontario, all coroners are medical doctors in good standing with the College of Physicians and Surgeons of Ontario. Most coroners are family physicians who maintain medical practices in addition to serving as part-time, fee-for-service coroners. Very few work full time as coroners.

The *Coroners Act* defines which cases coroners can and must investigate, describes the purpose of their investigation, provides the powers they possess to investigate the death, identifies to whom they can release information arising from an investigation, and contains provisions relating to inquests. The *Coroners Act* required the coroner to investigate the death of this infant because there was reason to believe that the baby girl had died suddenly and unexpectedly, which is one of the triggering circumstances listed in the statute. As required by the

*Coroners Act*, the coroner issued a warrant to take possession of the child's body, which initiated the coroner's death investigation.

Coroners investigate deaths in order to answer five questions: Who died? How, where, and when did he or she die? And by what means did the death occur? Coroners are interested not simply in determining the actual physical cause of death. The medical factors relevant to the cause of death are only some of the many factors they consider. Non-medical factors are, in many cases, equally important. A coroner conducts death investigations, in part, to reduce the risk of similar deaths in the future.

The coroner in our example travelled to the scene to view the body, which remained at the home. There the coroner met and spoke with family members to explain the coroner's involvement, to learn if they had any specific concerns, to outline the future steps in the investigation, and to answer their questions. Coroners have the power under the *Coroners Act* to gather information. As part of the investigation, in our example the coroner inspected and made copies of the child's medical records. It is the coroner's responsibility to make sure that the pathologist who will do the autopsy receives a copy of any relevant medical or hospital records.

Coroners cannot use their powers under the *Coroners Act* to further a police investigation. Indeed, they have to be very careful that they do not jeopardize a future criminal prosecution by using their powers inappropriately to further such an investigation. If the police wish to obtain evidence for a criminal proceeding, they must comply with the requirements of the *Criminal Code* and the *Canadian Charter of Rights and Freedoms*.

In many instances, a coroner decides case by case whether an autopsy will be performed. In 1995, the OCCO issued Memorandum 631, attaching the Protocol for the Investigation of Sudden and Unexpected Deaths in Children under 2 Years of Age, which required that an autopsy always be performed in these cases. In our hypothetical example, therefore, the coroner issued a warrant for post-mortem examination, as required under the *Coroners Act*, to authorize an autopsy on the body. In the warrant, the coroner was required to provide the name of the deceased, the name of the pathologist to perform the autopsy, a full description of the circumstances or medical history indicating why the autopsy was required, and any toxicology, X-ray, or other special investigations that might assist the coroner.

The warrant for post-mortem examination is an important source of relevant information for the pathologist performing the autopsy. It is widely accepted that pathologists will be better able to direct their attention where it is needed during the post-mortem examination if they are given relevant information about the

death. For these reasons, a coroner should include as much detail as possible. At the time of our case, however, the warrants were often cryptic and contained little information.

After issuing the warrant for post-mortem examination, the coroner telephoned the pathologist to provide additional information in advance of the examination. Whether the coroner and the pathologist took detailed notes of the information shared during this conversation depended on their individual practices.

## **Role of the Pathologist and the Police at the Post-Mortem Examination**

In 1997, pathologists performed virtually all autopsies conducted under a coroner's warrant. Pathologists are medical doctors who are specially trained to examine bodies and their tissues both visually and under a microscope. Some pathologists have additional training or certification relating to young people (pediatric pathologists) and/or to the investigation of deaths that raise both medical and legal issues (forensic pathologists). In 1997, and indeed today, no Ontario pathologists had certified expertise or training in both pediatric pathology and forensic pathology.

Because the eight-month-old child died in Toronto, the police accompanied the body to the Ontario Pediatric Forensic Pathology Unit (OPFPU) at Toronto's Hospital for Sick Children (SickKids). In 1991, the Ministry of the Solicitor General signed a contract with SickKids to establish the OPFPU for the purpose of performing autopsies under coroner's warrants on most deceased infants and children in Toronto and the surrounding area. The pathologists at the OPFPU were pediatric pathologists who performed these autopsies on a fee-for-service basis. In 1997, there were no pathologists at the OPFPU with certified expertise or training in forensic pathology.

The police, in this case the forensic identification officer, accompanied the child's body to the OPFPU. A police officer does this for at least three reasons: to identify the body to the pathologist; to maintain continuity of evidence in the event that the police subsequently lay charges in connection with the death; and to provide the pathologist with information acquired during the investigation to that point. In 1997, it would have been extremely unusual for a pathologist to travel to and view the death scene.

The police officer met with the pathologist in the conference room and told the pathologist what she had learned. Typically, the officer did not filter out any potentially irrelevant or prejudicial information, nor did the officer provide the

information to the pathologist in writing. In addition, neither the officer nor the pathologist took detailed notes of their conversation.

The police officer next accompanied the pathologist to the autopsy suite, where she took notes on the autopsy. The pathologist conducted the post-mortem examination in accordance with the protocol. A pathology assistant, a trained non-medical laboratory professional, assisted the pathologist with the preparation and examination of tissues. This pathologist noted observations made during the autopsy but did not list all the procedures performed. In 1997, some pathologists dictated their notes as they went along, some made written notes, and others typed their notes directly into a computer. It would have been unusual at that time for a pathologist to make notes of the information the police officer communicated during the autopsy.

The first stage of a post-mortem examination is the external examination of the body. This examination consists of X-rays, visual examination, collection of physical evidence (if any), and the taking of measurements. In our example, the child's entire body was X-rayed and additional X-rays were taken of the ribs, knees, shoulders, and skull. A qualified radiologist then reviewed the X-rays before the autopsy, looking for bone fractures and paying particular attention to the skull, ribs, and long bones. The presence of new, healing, or old fractures is of critical importance, and, in our case, the radiologist's report also directed the pathologist to bony injuries that could not be recognized by the naked eye.

The pathologist then inspected the body, documenting external marks of injury. In particular, the pathologist diagrammed and recorded the size, shape, colour, location, and pattern of bruises, scrapes, cuts, and penetrating wounds. As in most cases, both the police and a hospital photographer took photographs of the whole body, of any wounds, and at various points throughout the autopsy as directed by the pathologist.

The pathologist also looked for any physical evidence (for example, fibres, hairs, and fluid stains) that could be seized for testing by the Centre of Forensic Sciences (CFS). In some cases, although not this one, a pathologist would take swabs of the genitalia, anus, or any possible bite marks. The pathologist also took a series of standard measurements, including weight, length, and circumference of the head, chest, and abdomen.

The second stage of a post-mortem examination is the internal examination. The pathologist opened the body and examined, removed, and weighed the major internal organs. The pathologist carefully examined the rib cage for evidence of recent or healing fractures. Special dissection techniques were used to examine the neck for evidence that the death may have been caused by asphyxia due to neck compression, and the pathologist examined the spinal cord and

brain, looking for, among other things, subdural hemorrhage, which is common in head injury cases.

The pathologist took samples of tissues for technicians at SickKids to prepare for examination under a microscope, a process that would take between a few days and a few weeks. The list of tissues sampled varies from case to case, but would include the cerebrum, cerebellum, brain stem and spinal cord, heart, left and right lung, thymus, liver, spleen, pancreas, and kidneys. A pathologist can generally be expected to examine 30 to 35 glass slides, or more in cases where special samples are required.

The pathologist consulted with any additional experts considered necessary. In our example, he requested that a pediatric neuropathologist examine slides from the brain of the deceased child. The pathologist also drew blood for toxicological screening for alcohol and drugs, a procedure that would be completed at the CFS. Depending on the circumstances of the case, the pathologist could have requested additional microbiological, biochemical, and other tests. In 1997, it would have been common for the pathologist not to document or record such consultations – often described as informal.

At the conclusion of the autopsy, the pathologist provided the police and the coroner with a preliminary opinion on the cause of death. Typically, this opinion was not in writing and was offered without the benefit of the results of the toxicological screens or the microscopic examination of the tissues. In 1997, the only record of this opinion was generally found in the police officer's notes of the conversation with the pathologist. The police incorporated the pathologist's preliminary opinion on cause of death into their investigation.

Over the following weeks, the pathologist examined the tissue samples with the aid of a microscope and reviewed the results of the ancillary testing, such as the toxicological and microbiological testing and the neuropathology report.

The pathologist synthesized all this information and wrote the formal report of post-mortem examination – Form 14 under the *Coroners Act*. The pathologist was able to complete the report only after all the professionals who conducted ancillary testing had reported their results, especially those on toxicology.

The report contained six headings: identification (who identified the body and who was present during the examination); observations made on external examination; observations made on internal examination; microscopic and laboratory findings; X-ray findings; and summary of abnormal findings. Finally, the report contained a space for the pathologist to record the opinion on the cause of death.

The pathologist, like most Ontario pathologists in 1997, did not include the history of the case, commentary, or an exhibit list in the report – Form 14 did not

direct the pathologist to do so. Reports prepared at this time commonly contained no case history or circumstantial evidence, even where the pathologist relied on such information or evidence in reaching an opinion on cause of death. They included little or no discussion, commentary, or interpretation. Thus, the report conveyed little of the reasoning used by the pathologist to reach the report's conclusions.

### **Role of the Police, the OCCO, and the Pathologist: From Completion of Report through Trial**

After the pathologist completed the report of post-mortem examination, he forwarded it to the regional coroner who in turn forwarded it to the Chief Forensic Pathologist. The Chief Forensic Pathologist reviewed the report to ensure that its conclusions were reasonable, and to identify any major forensic pathology issues that needed to be addressed before the pathologist released the report to the Crown. The Chief Forensic Pathologist was responsible for ensuring that the injuries were properly documented, the report contained no inconsistencies, the summary of abnormal findings was accurate, and the cause of death was supported by the findings. The Chief Forensic Pathologist would not review photographs or slides unless he had identified a potential problem. Once the Chief Forensic Pathologist had reviewed the report, it was released to Crown counsel.

When the Chief Forensic Pathologist approved the release of the report, the coroner was able to complete the coroner's investigation statement. This document is the official record of the death investigation: it contains the coroner's findings of fact regarding the cause and manner of death, as well as an explanation of why the coroner investigated the case and ordered a post-mortem examination. In our example, the police filed charges, so the coroner did not complete the coroner's investigation statement until the criminal proceedings were over.

In 1997, the police sometimes laid charges against an individual based, in part, on the pathologist's preliminary opinion on cause of death. The amount of contact between the police and the pathologist varied significantly between cases. Often, the pathologist's discussions with police dropped off sharply after the autopsy, even where the police charged an individual. Frequently, the pathologist did not hear from the Crown or the police until shortly before the preliminary hearing or the trial. If a pathologist received additional information from the police or Crown counsel that affected his or her opinion on the cause of death, the pathologist would likely have prepared a supplementary report. Similarly, if a pathologist modified an opinion for any reason after releasing the report, he or she would likely have issued a supplementary report.



In our example, the Crown counsel called the pathologist to testify at both the preliminary hearing and the trial. The purpose of the testimony was for the pathologist to communicate his findings to the court. Like all expert witnesses who are permitted to give opinion evidence, the pathologist was there to assist the court, not the party who called the pathologist to the stand. Expert witnesses must serve and place the interests of justice ahead of the interest of either party. Experts – in 1997 and today as well – must be independent, and they must always remember that they are not there to secure a conviction or an acquittal. This participation in the criminal justice system, which of course does not occur in every case in which a post-mortem examination is conducted, is the final task performed by a pathologist in a death investigation.