

Ministry of the Solicitor General

Ministère de la Solliciteur général

Ontario Forensic Pathology Service

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Date: March 27, 2020

To: All Registered Pathologists

From: Dr. Michael Pollanen
Chief Forensic Pathologist and Deputy Chief Coroner

Subject: **Guidelines for Medicolegal Autopsies in Ontario during the COVID-19 Outbreak**

The following document outlines guidance for conducting medicolegal autopsies under the auspices of the Office of the Chief Coroner/Ontario Forensic Pathology Service (OCC/OFPS) during the COVID-19 outbreak. The purpose of this guideline is to identify practices that prioritize the safety of staff and help manage workplace pressures, while meeting the requirements of an adequate medicolegal autopsy. This document supersedes previous communications from OCC/OFPS on this topic.

These are consensus-based guidelines approved by the Forensic Pathology Advisory Committee of the OCC/OFPS.

Guidelines that apply to all registered pathologists

Management of COVID-19 cases

- Medicolegal autopsies will not be performed on known cases of COVID-19 unless there are extenuating circumstances such as homicide.
- If an autopsy must be conducted on a known case of COVID-19, then the postmortem examination will be conducted in a Forensic Pathology Unit with a negative pressure autopsy room.
- Appropriate personal protective equipment (PPE) including N95 mask should be worn during the postmortem examination.
- The use of electric oscillating saw is not recommended. The rib cage can be opened with bone shears.
- If COVID-19 is strongly suspected, then please discuss the case with the regional coroner and/or the forensic pathologist on-call. The case will be pre-screened by obtaining a

nasopharyngeal swab for testing at the Public Health Ontario Laboratory or in a hospital laboratory, before a decision is made to conduct an autopsy.

Management of all other cases during the outbreak

- Medicolegal autopsies will be conducted on cases referred by a coroner, if the death is not known to be due to COVID-19.
- The pathologist will be responsible for determining the method of autopsy that is most appropriate for the case.
- It is recommended that the pathologist consider using a minimally invasive approach to dissection and minimizing aerosolization.
- Appropriate PPE should be worn during the postmortem examination.
- If the postmortem examination included procedures that produces aerosols (e.g., opening the cranial cavity with an electric oscillating saw), then N95 masks should be worn in the autopsy room. Otherwise, surgical masks are adequate.

Additional guidelines that apply to pathologists working in the Provincial Forensic Pathology Unit (Forensic Services and Coroners Complex)

- A minimally invasive approach to the postmortem examination can be informed by considering the past medical history, circumstances of death, findings on external examination and findings on postmortem CT imaging. This approach may permit minimizing dissection thereby reducing staff exposure to tissue and body fluids during the examination.
- Recommended options include: (1) external examination with percutaneous sampling of body fluids only; (2) targeted dissection of an organ/body cavity or *in situ* dissection, informed by postmortem CT findings; or (3) 3-cavity dissection, if most appropriate to resolve the medicolegal issues in the case, as deemed by the pathologist.
- If possible, the electric oscillating saw should not be used. This may necessitate not opening the cranial cavity, if the CT imaging shows no intracranial abnormalities.

Additional guidelines that apply to pathologists working in Regional Forensic Pathology Units and community hospitals without access to postmortem CT imaging

- A minimally invasive approach to the postmortem examination can be informed by considering the past medical history, circumstances of death, and findings on external examination. This approach may permit minimizing dissection and reducing staff exposure to tissue and body fluids during the examination.
- Recommended procedures include undertaking dissection only to the extent that is deemed necessary according to the professional discretion of the pathologist. Recommended options include: (1) external examination with percutaneous sampling of body fluids only; (2) targeted dissection of an organ/body cavity or *in situ* dissection; and (3) complete autopsy, if most appropriate to resolve the medicolegal issues in the case.
- If possible, the electric oscillating saw should not be used. This may necessitate not opening the cranial cavity, unless it is deemed necessary to establish the cause of death or to answer specific a medicolegal question.
- We do not recommend using a handsaw to open the cranial cavity unless the autopsy technician/technologist/assistant is experienced with the use of a handsaw for that purpose. However, some technical staff have experience with opening the cranial cavity with

an oscillating saw after enveloping the head within a closed plastic bag. This may be an option to consider.

Case examples for consideration

<u>Case type</u>	<u>Possible approach during COVID-19 outbreak</u>
Pre-autopsy information including external examination (and possible postmortem CT imaging) indicate that a <u>drug-related death</u> is most likely	External examination and percutaneous sampling of body fluids for toxicologic studies.
Pre-autopsy information including external examination (and possibly postmortem CT imaging) indicate that death was most likely due to <u>atherosclerotic/hypertensive cardiovascular disease</u>	External examination and percutaneous sampling of body fluids for storage. Targeted dissection of the heart (and possibly lungs) with histology of the relevant pathological findings. In addition, if postmortem CT imaging reveals a reasonable cause of death (e.g., ruptured myocardial infarct, or ruptured abdominal aortic aneurysm), then no dissection may be an option to consider.
Pre-autopsy information including external examination (and possibly postmortem CT imaging) indicate that death was mostly likely due to demonstrable fatal injuries related to <u>accidental/suicidal trauma</u>	External examination and percutaneous sampling of body fluids for toxicologic studies or storage.

Sincerely,



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