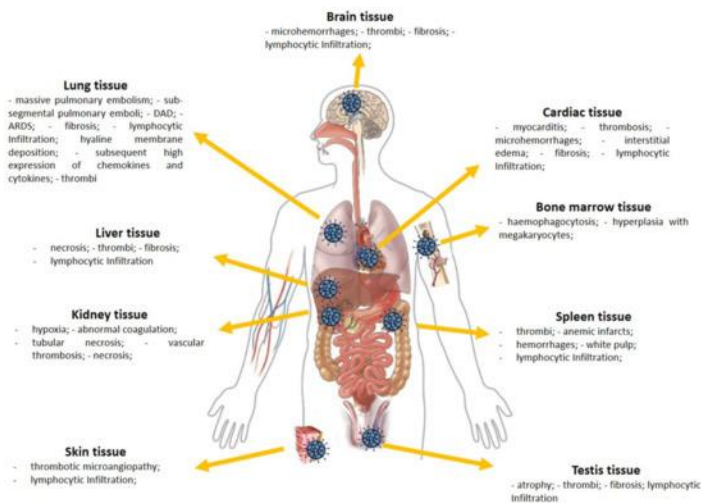




IPC Requirements for Safe Autopsies of SARS-CoV-2 Positive Corpses

POSSIBLE FINDINGS IN COVID-19 AUTOPSY







Ministry of Health and Wellness
MAURITIUS

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Approval Form

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IPC REQUIREMENTS FOR SAFE AUTOPSIES OF SARS-COV-2 POSITIVE CORPSES			
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PEER REVIEW

Dr. S. Gungadin (Chief Police Medical Officer).

This document was reviewed by the IPC teams in May 2023 and no changes were recommended – this version is being extended to 2025.

Date of next review: December 2025

IPC Requirements for Safe Autopsies of SARS-CoV-2 Positive Corpses

Introduction

Autopsies on COVID-19 patients have generally been avoided in Mauritius due to concerns about the transmission of the virus. Notwithstanding the risks, in case of possible foul play, it may be necessary to conduct autopsies on contagious corpses.

There have been virtually no documented cases of transmission of COVID-19 through the handling of the bodies of deceased people.¹ However, as a precaution, the appropriate personal protective equipment (PPE) should be worn. Autopsies are considered aerosol-generating procedures and additional precautions must be taken.

Purpose

This document describes the steps that should be taken to minimize transmission of infection when conducting an autopsy on a SARS-CoV-2 positive corpse.

Basic principles of infection prevention and control

Healthcare workers should:²

- Perform hand hygiene before and after handling the body (see the National IPC Guidelines for details);
- Use appropriate PPE based on the level of interaction with the body and risk assessment (see the annexed figure for details)³
- Ensure that any body fluids leaking from orifices are contained and cover leaking parts in impermeable material;
- Minimize handling of the body;
- Disinfect any non-disposable equipment used during handling of the body (see the “Standard Operating Procedure for the Routine Environmental Cleaning of Healthcare Facilities” for details);
- Correctly remove and dispose of PPE when finished (see the “Standard Operating Procedure on the Rational Use of PPE in the Context of the COVID-19 Outbreak” for details);
- Embalming is not recommended in order to avoid excessive manipulation of the body;
- Linen should be disinfected or thrown away as per protocol (see the “Standard Operating Procedure on the Management of Linen that may be Contaminated with SARS-CoV-2” for details); and
- Dispose of infectious waste in yellow bags and body parts in red bags for incineration; if leakage is suspected, use double bags.

Autopsies

1. Any post-mortem activities, including recovery, transport, autopsy, handover to families and burial, should be carried out with a focus on avoiding generating aerosols and splashing bodily fluids.
 - a. Non-invasive post-mortem examination like CT scan imaging can be used in some cases.
2. If aerosol generation is likely (e.g., when using an oscillating saw or washing the intestines):
 - a. appropriate engineering controls and PPE must be used;

- b. contaminated surfaces and equipment must be regularly disinfected; and
 - c. thorough personal hygiene, especially handwashing, must be rigorously observed.³
- 3. Limit the number of staff who are involved in the autopsy procedure.
- 4. Lighting must be adequate.⁴
- 5. For unconfirmed COVID-19 cases, consider a staged autopsy i.e., perform a post-mortem COVID-19 test and await the results.⁵
- 6. Prefer the use of round-ended scissors. Heavy duty blades with blunted points should be used to avoid prick injuries.⁶
- 7. Only one body cavity at a time should be dissected.
- 8. Unfixed organs must be held firm on the table and sliced with a sponge.⁶
- 9. Oscillator saws should preferably be used with a suction extractor; otherwise, a handsaw with a chainmail glove should be used.^{6,7}
- 10. High-pressure water sprays should not be used, and if the intestine needs to be opened, this should be done under water.⁸
- 11. Avoid taking specimens out of the autopsy room. If required:⁹
 - a. Specimens should be placed in a leakproof primary container.
 - b. Within the autopsy suite, primary containers should be placed into a leakproof secondary container.
 - c. If possible, the secondary container should then be placed into a resealable plastic bag that was not in the autopsy suite when the specimens were collected.
 - d. The primary and secondary containers and resealable plastic bag should be wiped down with 70% alcohol or 0.5% hypochlorite.
 - e. The resealable plastic bag should then be placed into a labeled biological specimen bag with absorbent material (e.g., paper towel).
- 12. Use a biosafety cabinet Class II or higher for the handling and examination of specimens and other containment equipment whenever possible.⁹ Otherwise, avoid manipulating specimens.
- 13. Clean the body with an appropriate disinfectant when finished; wipe blood and other fluids off.

Layout

- 1. Autopsy rooms must have a precautionary sign posted on the entry door (e.g., “Autopsy in Progress”, “Authorized Personnel Only”, “SARS-CoV-2 Awareness”, “Proper PPE Required”).⁹
- 2. A logbook including names, dates, and activities of all workers participating in the postmortem care and cleaning of the autopsy suite should be kept and available for future follow up, if necessary. The names of custodial staff entering after hours or during the day, should also be included in the logbook.⁹
- 3. Hand sanitizers should be available at the entry site, the exit, the donning station and the doffing station. Handwashing facilities should be available at the doffing area.

4. Donning is done in a clean zone. Doffing is done near the exit.
5. Bins should be found at the donning and doffing areas. All bins should be covered and touch-free.
6. All PPE should be readily available at a PPE station at the donning area. Posters to remind staff how to don and doff should be present at the donning and doffing stations.
7. Unilateral flow of staff is preferred i.e., the same entry point should not be used for exit.
8. Doors to the room should be kept closed except during entry and egress.
9. Always perform autopsies in an adequately ventilated room, i.e., for natural ventilated spaces, a controlled airflow of at least 12 air changes per hour or an airflow of 160L/s/person should be assured. Where a mechanical ventilation system is available, negative pressure should be created to control the direction of airflow.⁴
 - a. To minimize cross-contamination, the CDC recommends use of an airborne isolation room – this can include having a HEPA filter for exhaust air and a negative pressure of 5 to 10 Pa.^{5,10}
 - b. Airflow should be directed away from personnel.
 - c. When such facilities are not available, the procedure should be performed in the most protective environment possible.
10. A family viewing area should be provided. Because of social-distancing measures in place, it may be that only a few relatives will be permitted access to the facilities.³

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