SUBJECT: Autopsies During Coronavirus Disease 2019 Pandemic

References: See Enclosure 1

1. PURPOSE. This Defense Health Agency-Procedural Instruction (DHA-PI), based on the authority of References (a) and (b), and in accordance with the guidance of References (c) through (f), establishes the Defense Health Agency’s (DHA) procedures for conducting post-mortem autopsies during the Coronavirus Disease 2019 (COVID-19) pandemic response. It applies only to deaths occurring as result of COVID-19 infection or complications of COVID-19 infections after the medicolegal authority with autopsy jurisdiction declines jurisdiction because the cause of death was not unclear or vaguely suspicious.

2. APPLICABILITY. This DHA-PI applies to DHA, the Military Departments, all military medical treatment facilities (MTF), and MTF clinical staff supporting COVID-19 patients, including treating providers and pathologists.

3. POLICY IMPLEMENTATION. It is DHA’s instruction, pursuant to References (c) through (h), that establishes DHA’s procedures to safely increase the performance of autopsies on individuals who died as a result of COVID-19 infection or from complications of COVID-19 infections after the appropriate medicolegal authority (medical examiner or coroner with autopsy jurisdiction) declines jurisdiction. The goal of this DHA-PI is to encourage approval and authorization of autopsies at MTFs where there is staff who are appropriately trained and experienced in conducting them on decedents with known infectious agents and where there are adequate safety measures available.

5. RESPONSIBILITIES. See Enclosure 2.

6. PROCEDURES. See Enclosure 3.
7. **PROPOSENT AND WAIVERS.** The proponent of this publication is Deputy Assistant Director, Medical Affairs. When Activities are unable to comply with this publication the activity may request a waiver that must include a justification, to include an analysis of the risk associated with not granting the waiver. The activity director or senior leader will submit the waiver request through their supervisory chain to the Deputy Assistant Director, Medical Affairs to determine if the waiver may be granted by the Director, DHA or designee.

8. **RELEASABILITY.** **Cleared for public release.** This DHA-PI is available on the Internet from the Health.mil site at: https://health.mil/Reference-Center/Policies and is also available to authorized users from the DHA SharePoint site at: https://info.health.mil/cos/admin/pubs/SitePages/Home.aspx.

9. **EFFECTIVE DATE.** This DHA-PI:

   a. Is effective upon signature.

   b. Will expire 10 years from the date of signature if it has not been reissued or canceled before this date in accordance with Reference (c).

/S/
RONALD J. PLACE
LTG, MC, USA
Director

Enclosures
1. References
2. Responsibilities
3. Procedures

Glossary
ENCLOSURE 1

REFERENCES

(a) DoD Directive 5136.01, “Assistant Secretary of Defense for Health Affairs (ASD(HA)),” September 30, 2013, as amended
(c) DHA-Procedural Instruction 5025.01, “Publication System,” August 24, 2018
(d) Centers for Disease Control and Prevention (CDC) Interim Postmortem Guidance, “Collection and Submission of Postmortem Specimens from Deceased Persons with Confirmed or Suspected COVID-19,” December 2, 2020¹
(e) College of American Pathologists (CAP) Protocols and Guidelines²
(g) United States Code, Title 10, Section 1471
(i) Centers for Disease Control and Prevention, Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2, September 10, 2021
(j) Centers for Disease Control and Prevention, Standard Precautions

¹ This reference can be found at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html#biosafety.
² This reference can be found at: https://documents.cap.org/documents/COVID-Autopsy-Statement-05may2020.pdf.
³ This reference can be found at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html.
ENCLOSURE 2

RESPONSIBILITIES

1. DIRECTOR, DHA. Under the authority, direction, and control of the Under Secretary of Defense for Personnel and Readiness and the Assistant Secretary of Defense for Health Affairs, and in accordance with References (d) through (g), the Director, DHA, will provide oversight for the DHA’s use of the Defense Information Technology Portfolio Repository.

2. SECRETARIES OF THE MILITARY DEPARTMENTS. Secretaries of the Military Departments will ensure compliance with this policy in MTFs under Service authority, direction, and control.

3. DIRECTOR, ARMED FORCES MEDICAL EXAMINER SYSTEM (AFMES). Under the authority granted by Reference (g) as implemented in Reference (h), the Director, AFMES is responsible for investigating not obviously natural deaths that occur on exclusive federal jurisdiction. In that capacity, the AFMES is routinely involved with deaths that occur outside of a healthcare facility, such as in a residence, outdoor setting, or motor vehicle. These deaths are referred to as “unattended” due to a lack of presence of a healthcare provider at the time of death. This publication provides guidance related to AFMES response to notifications of deaths on exclusive federal jurisdiction. Notification to the AFMES should continue per established routine procedures.

4. TREATING PROVIDERS. Treating providers should have pathologists involved in the discussion with the decedent’s legally authorized representative to explain the autopsy procedures, to include the fact that the autopsy can be limited in scope.

5. PATHOLOGISTS. Pathologists must conduct any autopsies performed in accordance with Centers of Disease Control and Prevention (CDC) recommendations on standard precautions, contact precautions and airborne precautions.

   a. Per CDC recommendations, the risks of performing an autopsy can be substantially mitigated with the use of proper/recommended Personal Protective Equipment (PPE) and environmental controls, even in the absence of modern autopsy suite technology.

   b. Per College of American Pathologists (CAP) recommendations, pathologists-in-training should be included, at the discretion of the Residency Program Director, in all aspects of their institution’s response to the COVID-19 pandemic to acquire skills that will enable them to manage future pandemics. See Enclosure 3.
c. Centralized review of all COVID-19 autopsy slides and tissue samples at the Joint Pathology Center is strongly encouraged to assist in diagnosis and identification of novel pathologic findings, as well as tracking and trending of disease-manifestations that inform clinical care.

6. MTF DIRECTORS. In conjunction with guidance from the Chief of Pathology, MTF Directors must determine whether to conduct an autopsy.
1. Postmortem Examination for COVID-19 Autopsies. The current CDC recommendations for COVID-19 autopsies outline how to safely perform a postmortem examination. The CDC’s guidance reflects an effort to increase the use of autopsy, if done with trained staff and appropriate safety precautions in place, along with appropriate consent from the decedent’s legally authorized representative. NOTE: Enclosure 3 pertains to cases under medical examiner jurisdiction only. Follow this DHA-PI for deaths attributable to COVID-19 as autopsy examination performed under CDC guidelines are encouraged to establish pathophysiology and sequelae of COVID-19 infection.

2. Consent of Decedent’s Legally Authorized Representative. When seeking consent from the decedent’s legally authorized representative, the clinical care team should include a pathologist (preferably the pathologist performing the autopsy) in the discussion. Among other things, the pathologist can explain the process, answer questions, and describe the contributions to scientific knowledge of this novel disease the autopsy could provide.

3. CDC Recommendations for Autopsies of Confirmed COVID-19 Persons. When conducting autopsies, pathologists need to follow CDC recommendations found in Reference (d). This includes use of techniques that minimize aerosols, environmental controls, and PPE, including eye protection (goggles or face shields). Consistent with CAP guidance, and with concurrence of the Residency Program Director, pathologists are encouraged to include pathologists-in-training.

4. Deaths of Persons That Have Laboratory Confirmed COVID-19 Infections. These individuals were very likely to be in the hospital or were being cared for in another health care facility and/or their homes under physician care, such that their clinical courses will be documented and their cause of death apparent. These deaths will be considered medical in nature (a “Natural” manner of death) and, thus, will not fall under the medical examiner jurisdiction; however, these deaths must still be reported through Defense Casualty Information Processing System. Therefore, no autopsy will be performed by the AFMES. In general, known COVID-19 deaths do not fall in the realm of forensic cases performed under title 10 by AFMES. If the death is known to be due to COVID-19, and a physician from the treatment teams signs the death certificate as such, the case does not fall under the realm of a forensic autopsy. Families may seek to pursue a consented hospital autopsy, but many facilities choose not to do these cases, due to the associated hazards or inadequate facilities to handle this type of case. Autopsy
by hospital staff pathologists may be performed for cases with signed consent of the decedent’s legally authorized representative and in accordance with local policy and current CDC guidance.

5. **Unattended Deaths With Lack of Apparent Non-Natural or Traumatic Cause of Death That Occur Outside the Hospital.** These will be handled on a case-by-case basis. The AFMES may need to consider COVID-19 infection as a cause of death. Prior to a decision about conducting an autopsy examination, the AFMES must be provided as much clinical history from first responders and/or clinical staff if recently seen in the MTF. Based on available information, AFMES may direct COVID-19 testing be conducted at the servicing MTF prior to rendering an autopsy decision. If AFMES elects not to perform an autopsy, the MTF may follow this DHA-PI to perform an autopsy. The AFMES website is [https://health.mil/Military-Health-Topics/Combat-Support/Armed-Forces-Medical-Examiner-System](https://health.mil/Military-Health-Topics/Combat-Support/Armed-Forces-Medical-Examiner-System).

6. **Unattended Deaths That Do Have an Apparent Cause Other Than COVID-19 Infection Will Be Investigated by AFMES.** Testing for SARS-CoV-2 infection must be performed prior to any autopsy for possible autopsy precautions and contributions of COVID-19 to the death. These investigations may be hindered as a result of the travel restrictions in place now or in the future. AFMES will work with the MTF staff for timely response and/or may direct movement of remains from the MTF to the Dover Port Mortuary or other MTF to protect investigative teams and/or accommodate travel restrictions. For Outside the Continental United States (OCONUS) cases, AFMES will direct movement of the remains to a different location (likely Dover Air Force Base or the Landstuhl Mortuary) to protect AFMES personnel from quarantine imposed as a result of foreign travel. For OCONUS investigations under AFMES jurisdiction being repatriated for autopsy examination, please contact the AFMES to discuss case prior to any embalming or preservation procedures as embalming before repatriation pertains to only COVID-19 confirmed deaths. There may be cases that are unattended or forensic in nature which fall under AFMES purview and jurisdiction in which a history or suspicion of COVID is present. If these cases fall under AFMES jurisdiction, AFMES would perform an autopsy to establish scientific identification, as well as cause and manner of death. AFMES may perform a COVID-19 swab prior to autopsy for the safety of staff performing the autopsy and for completeness. AFMES may also send tissue to Joint Pathology Center for confirmation, if the lung radiology and histology support a COVID-19 diagnosis.

7. **CDC Guidance For Postmortem Care of Decedents With Potential COVID-19.** COVID-19 pandemic is a dynamic situation, and this publication will be updated, as needed, to accommodate future situations. The CDC has issued guidance for handling decedents with potential COVID-19 infections for medical examiners, coroners, pathologists, other workers involved in the postmortem care of decedents with potential COVID-19 infections, and local and state health departments (d). The CDC refers to people with potential COVID-19 infections as “Persons Under Investigation.” In general, the CDC believes COVID-19 to be spread by passage of respiratory droplets from person-to-person. It is believed that the risk of a deceased
person to transmit COVID-19 to a person handling the deceased is low. The CDC has issued guidance on the risk for health care providers associated with treating patients with COVID-19 infections (i); however, it does not discuss autopsy personnel specifically.

8. **Postmortem Activities Should Avoid Aerosol Generating Procedures.** If aerosol generation is likely, such as when using an oscillating saw, then appropriate engineering controls and PPE must be used. These precautions and the use of standard precautions are appropriate practices to prevent contact with infectious material, percutaneous injury, and other autopsy hazards. More specific information on CDC recommendations for Standard Precautions can be found on the CDC website (j).

9. **LOCAL STANDARD OPERATING PROCEDURES.** In conjunction with the Chief of Pathology/Laboratory Director, MTF Directors should determine whether to provide autopsy services to COVID-19 positive decedents. Once this decision is made, the MTF director and Chief of Pathology/Laboratory Director must coordinate with Facilities Engineers, in order to ensure that proper environmental controls are provided according to CDC and other federal and regulatory agency guidelines.

10. **Research and COVID-19 Deaths.** COVID-19, a respiratory viral infection caused by SARS-CoV-2, has caused the most serious pandemic in the world since the 1918-19 influenza. While reports demonstrate that COVID-19 shares many clinical findings and outcomes as observed for prior Coronavirus-caused Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), the ongoing pandemic has revealed a large number and wide range of varying and confusing clinical manifestations, for which clear biological and pathophysiologic understanding is lacking. To help researchers and clinicians understand COVID-19 and develop improved ways to treat severely affected COVID-19 patients with septic shock, Acute Respiratory Distress Syndrome, myocardial dysfunction, renal failure, inflammatory effects, and other conditions in adults, adolescents, children, infants, and neonates, Military Health System pathologists can provide critical support by performing autopsies, conducting diagnostic laboratory testing for the virus, performing critical clinical laboratory testing, and clearing blood products that facilitate safe patient care. Centralized review of selected COVID-19 autopsy slides and tissue samples by the Joint Pathology Center is strongly encouraged, if necessary, to assist in diagnosis and identification of novel pathologic findings, as well as tracking and trending of disease-manifestations that inform clinical care.
**GLOSSARY**

**ABBREVIATIONS AND ACRONYMS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AFMES</td>
<td>Armed Forces Medical Examiner System</td>
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<td>ARDS</td>
<td>Acute Respiratory Distress Syndrome</td>
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<td>CAP</td>
<td>College of American Pathologists</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<td>COVID-19</td>
<td>Coronavirus Disease 2019</td>
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<td>DHA</td>
<td>Defense Health Agency</td>
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<td>DHA-PI</td>
<td>Defense Health Agency-Procedural Instruction</td>
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<td>MERS</td>
<td>Middle East Respiratory System</td>
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<td>MTF</td>
<td>military medical treatment facility</td>
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<td>OCONUS</td>
<td>Outside the Continental United States</td>
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<tr>
<td>PPE</td>
<td>personal protective equipment</td>
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<td>SARS</td>
<td>Severe Acute Respiratory System</td>
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<td>SARS-CoV-2</td>
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