### DC Office of the Chief Medical Examiner Standard Operating Procedures

Section 8: Postmortem Examinations Q: Documenting the Postmortem Examination

4: Radiology

Approved

#### TITLE: POST-MORTEM EXAMINATION – PATHOLOGY SERVICE

Policy: The Office of the Chief Medical Examiner (OCME) is assured adequate

supporting services, equipment and facilities to perform autopsy examinations

pursuant to DC Code § 5-1403 and 1409.

Purpose: To ensure adequate radiology and x-ray support for autopsy examination in

accordance with the mission of the Office of the Chief Medical Examiner.

Scope: The following procedures are to ensure that Mortuary Staff and the Medical

Examiner physicians have the proper forensic radiology support in a safe and

secure environment.

#### 1. POST MORTEM RADIOLOGY

- 1.1. An integral aspect of certain autopsy examinations is the performance of postmortem radiology. The decision for obtaining X-rays is the responsibility of the medical examiner performing the postmortem examination. The medical examiner should ensure, prior to the release of the decedent, the X-rays obtained are at a proper exposure level to allow for valid interpretation and are labeled with unique case number and are properly oriented to the viewer using a left or right designation on each radiograph.
- 1.2. Case that require postmortem X-ray
  - 1.2.1. All Penetrating/Perforating Trauma
  - 1.2.2. Gunshot/Shotgun Wounds
  - 1.2.3. Sharp Force Injury
  - 1.2.4. All Decomposed Remains
  - 1.2.5. All Pediatric Cases
    - 1.2.5.1.1. In children, the entire body should be X-rayed paying close attention to the extremities.
    - 1.2.5.1.2. Directed X-ray for infant cases is strongly encouraged
  - 1.2.6. Cases were death is caused by an explosion device
  - 1.2.7. Charred Bodies
  - 1.2.8. Skeletonized Remains
- 1.3. X-rays may be obtained at the discretion of the attending pathologist

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- 1.4. All x-rays shall be completed by the mortuary staff immediately after completing the intake of remains procedures.
  - 1.4.1. The mortuary staff must document that X-rays were completed in Forensic Automated Case Tracking System (FACTS).
  - 1.4.2. Postmortem X-rays should be performed through the body bag prior seal being broken by the attending pathologist.
    - 1.4.2.1.1. Postmortem X-rays should be repeated if artifacts obscure abnormalities
    - 1.4.2.1.2. Directed post-mortem X-ray is encouraged upon body bag being opened in the presence of attending pathologist

## 2. Radiology Quality

- 2.1. Radiographs
  - 2.1.1. Radiographs are taken using the Lodox or portable Carestream systems.
  - 2.1.2. Radiographs are archived in two locations
  - 2.1.3. OCME PACS system in dicom format
  - 2.1.4. OCME server in jpeg format
- 2.2. Quality Inspection
  - 2.2.1. Approximately 10% of the decedent radiographs, randomly chosen, are verified for quality and archiving. Verification is conducted by the forensic anthropologist or Forensic Investigator with radiography training.
  - 2.2.2. Radiograph quality is visually verified. The following items are considered:
    - 2.2.2.1. the L mark is present in the radiograph;
    - 2.2.2.2. the skeletal elements are clearly observed.
  - 2.2.3. Radiograph archiving is verified by accessing the radiograph through the IQWEBX interface and the case photo file.
- 2.3. Documentation of Quality Inspection
  - 2.3.1. The result of each radiograph verification is documented in the Radiograph Inspection Log. The following information is recorded:
    - 2.3.1.1. the case number;
    - 2.3.1.2. verification date and time;
    - 2.3.1.3. verifier;

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### 2.3.1.4. results: acceptable or unacceptable.

# 2.4. Unacceptable Radiographs

- 2.4.1. An unacceptable verification result is reported to the Mortuary Supervisor via email at the time of the verification.
- 2.4.2. The Mortuary Supervisor examines the radiograph to determine if it is operator error or equipment malfunction.
- 2.4.3. When the error is operator error, the Mortuary Supervisor addresses the error with the appropriate staff.
- 2.4.4. When the error is equipment malfunction, the Mortuary Supervisor works with internal and external technical support to correct the problem.
- 2.4.5. Following an unacceptable radiographs, all radiographs are verified over a five (5) day period to insure the problem is resolved.