



## **AUTOPSY**

The autopsy training consists of 5 months on the autopsy service and weekend autopsy calls during the 4-years' of pathology training. Generally, the autopsy rotation is 2 months in the first year and 1 month each in the following 3 years. The department of Pathology has an agreement with the Hinds County Coroner and other coroners of the State of Mississippi to conduct autopsies on natural deaths, that occur in the community. These forensic autopsies are done at the UMC morgue.

### **Skill Level I – First and Second year residency (3 months).**

#### **Objectives for Six General Competencies**

##### **Patient Care**

1. Understanding the legal aspects of the autopsy permit and know the family member who is authorized to give permit for an autopsy; know the definition of “legal next of kin”.
2. Understanding the procedures for obtaining phone-autopsy permits so as to evaluate if the autopsy permit is legally valid when a phone permit is obtained by the clinicians.
3. Evaluating the restrictions and other special examinations authorized by the family member.
4. Know the procedures involved in release of the body to the Health Information Service after the autopsy is completed.
5. Know the procedures to follow when an autopsy is delayed.
6. Know the policy regarding retention of organs and procedures for sending the remains not needed for further examination to the funeral home with the body.
7. Know the procedures for accessioning the autopsy in the Epic system.
8. Know the procedure for identifying the body.
9. Know the process of obtaining relevant clinical information from the chart or from contact with the clinicians.
10. Know the proper methods of protection against infectious or other noxious agents while performing an autopsy.
11. Know the Mississippi laws regarding the definition of deaths that fall under the jurisdiction of the county coroner.
12. Know special procedures for handling tissue, for example, decalcification, fixation in B-5 fixative or other special fixatives.

##### **Medical Knowledge**

1. Know the proper methods of evisceration of organs.
2. Know the methods of evaluating and estimating the volume of fluid collections within body cavities.
3. Know how to separate the individual organs for dissection and methods of dissecting each organ.
4. Know the essentials of gross examination of the heart, lungs, blood vessels, liver, spleen, urogenital system, brain, and the skeletal system.
5. Know how to remove the brain and spinal cord.
6. Know the methods of sutures that are applied to the body after the autopsy is complete.
7. Know the essentials of gross examination of various organs so as to formulate a provisional diagnosis within 24 hours of completion of the autopsy.
8. Know how to select tissue for microscopic examination.



9. Know when and how to take gross photographs using the equipment in the morgue and how to utilize the photographs for use in conferences.
10. Know basic histology and pathology for evaluation of microscopic slides and for arriving at an accurate diagnosis.
11. Know the definition of cause of death, manner of death and mechanism of death.
12. Know the proper terminology to use when examining a death certificate.
13. Know the basics for writing the Final Autopsy Report.
14. Know the skills involved in preparing and presenting an autopsy at the weekly autopsy conference.

### **Practice-Based Learning and Improvement**

1. Know the JCAHO and CAP regulation regarding completion time for uncomplicated and complex autopsies.
2. Accept and learn from constructive feedback and guidance from staff physicians, clinicians, laboratory supervisors, house staff colleagues, and modify behavior as appropriate.
3. Make use of on-line resources and identify recent advances in understanding disease processes manifested in a particular autopsy case.
4. Monitor their own case mix such as numbers of adult, pediatric, neuropathological, and forensic cases and types of diseases to assure a broad-based exposure to both diagnostic and technical aspects of autopsy pathology.
5. Understand the principles of quality assurance in autopsy by
  - a. Regularly attending the monthly Departmental Performance Improvement Meeting
  - b. Applying quality assurance practices by correlating autopsy findings with current and/or previous histologic/cytologic material.
    - a. Knowing how to access and use the computer system for work-up and sign-out of autopsy cases
    - b. Attending the summation conference at the conclusion of the departments' CAP inspection.
    - c. Participating in teaching medical students rotating in anatomic pathology.

### **Interpersonal and Communication Skills**

1. Know the basic principles of transmitting the autopsy diagnosis to the clinicians in a timely and succinct way.
2. Ability to obtain relevant information from the coroner or other officials involved in the autopsy.
3. Ability to present the autopsy in a clear, concise manner at autopsy conferences.
4. Ability to write a concise and accurate autopsy report.

### **Professionalism**

1. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diverse patient and clinician population as well as to research.
2. Appropriate interaction with social workers or family members (e.g. attend family conference).
3. Maintain appropriate confidentiality with regard to patient information and autopsy reports.
4. Strive to facilitate the timely completion and release of patient records and autopsy permit to avoid unnecessary delay of the autopsy.
5. Timeliness and accuracy of reports.
6. Recognize the limitations of himself/herself, and seek advice or assistance when needed.

## **Systems-Based Practice**

1. Understand how the management of the autopsy service affects other health care professionals, organizations, and society.
2. Understand the costs involved in performing autopsies and how to apply cost-effective practices
  - a. Take sections and use cassettes efficiently
  - b. Learn which tissues should be kept for storage and which can be discarded at the time of evisceration.
  - c. Tailor the use of lab tests to each case to avoid unnecessary costs
3. Ability to recognize potential legal ramifications related to autopsies.

## **Skill Level 2: Third and Fourth year residency (2 months)**

### **Objectives for Six General Competencies**

#### **Patient Care**

1. Perform all complicated dissection with minimal supervision from the staff.
2. Perform special techniques, for example, removal of eyes, spinal cord, sinuses and middle ear. (Some of these techniques covered on Neuropathology rotation.)
6. Describe those situations in which radiographic examinations of the whole body or parts are indicated.
7. Understand the use of autopsy data for quality of patient care.

#### **Medical Knowledge**

1. Know how to order and interpret appropriate special stains and immunohistochemical studies.
2. Know when electron microscopy or other special techniques (molecular or cytogenetics) may be beneficial to the case, and understand the interpretation of these tests.
3. Expand knowledge of histology and pathology of each organ system.
4. Ability to complete the entire autopsy procedure and write the final autopsy report with minimal supervision from staff.
5. List diseases encountered at autopsy that may present a health hazard to the staff and funeral director.

#### **Practice-Based Learning and Improvement**

1. Perform literature searches on selected topics.
2. Know how to apply SNOMED codes and how to use these codes to retrieve cases from Epic.
3. Learn investigative tools for studying diseases using autopsy material.
4. Read and understand the Practice Guidelines for Autopsy Pathology, Autopsy Reporting, Arch. Pathol Lab Med. 1999;123:1085-1092. Can access via CAP website ([www.cap.org](http://www.cap.org))
5. Read and understand the College of American Pathologists inspection checklist for autopsy.
6. If possible, inspect an autopsy service as part of a CAP inspection or mock inspection.
7. Select cases for saving as teaching specimens.
8. Ability to teach junior residents and medical students rotating in Pathology.

#### **Interpersonal and Communication Skills**

1. Prepare autopsy cases to be presented to interdepartmental conferences.

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2. Prepare autopsy cases for presentation at the monthly clinico-pathologic conference.
3. Learn to take appropriate digital microphotographs for presentations.
4. Learn collection of data for presentation at national conferences.
5. Establish rapport and communication with local funeral directors in order to achieve maximum cooperation and proper handling of autopsy procedures, to include requirements for appropriate embalming and avoiding time delays.

### **Professionalism**

1. Maximize time management and prioritization of tasks.
2. Maximize ability to organize and assimilate all data effectively.
3. Maintain a high level of responsibility, achieving a level in keeping with a senior resident/junior faculty.

### **Systems-Based Practice**

1. Utilize the internet to access pathology websites (CAP, ASCP, etc) to stay abreast of current topics and how autopsy issues are handled by other institutions or organizations.
2. Know how information technology is used to store, retrieve, and transfer data.
3. Assist other health care professionals in dealing with system complexities.

### **Outcomes Assessment**

Subjective evaluation: The resident's performance will be evaluated based on observation of the resident's performance and presentations at autopsy conferences. The faculty will complete a competency-based evaluation at the end of each rotation.

### **Recommended Reading:**

An Introduction to Autopsy Technique. Grover M. Hutchins, MD, Editor. College of American Pathologists, Northfield, Illinois.

Cardiovascular Pathology. Eds M.D. Silver, A.I. Gotlieb, F.J. Schoen. Churchill Livingstone, New York, 2001.

Pathology of the Lungs. B. Corrin, Churchill Livingstone, London, 200