## RESIDENT COMPETENCY IN AUTOPSY PATHOLOGY

## **Model Checklist**

**PATIENT CARE:** Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. In the context of pathology, residents must demonstrate a satisfactory level of diagnostic competence and the ability to provide appropriate and effective consultation. Residents should be able to:

Determine that an autopsy permit is valid, determine that the appropriate person as defined by statute has signed the permit, and note restrictions.
Adhere to and apply universal precautions in the autopsy room.
Perform an external examination of the body, appropriate for the circumstances, including positive patient identification.
Perform a routine autopsy utilizing standard dissection techniques, e.g., Virchow and Letulle/Rokitansky types, in such a way that it will not compromise preparation and viewing of the body at a funeral.
Open the heart appropriately along the pathway of blood flow.
For cases of suspected acute myocardial infarction, cut ventricles parallel to base and understand the use and limitations of TTC solution.
As necessary, remove and dissect coronary arteries and bypass grafts and decalcify to demonstrate vascular pathology.
Remove and inflate lungs with formalin and other solutions as needed.
Dissect pulmonary arterial tree to demonstrate thromboemboli and webs.
Dissect the entire gastrointestinal tract.
Dissect the biliary tree maintaining appropriate relationships of gallbladder, bile ducts, pancreas and ampulla.
Dissect the kidneys, ureters, bladder and, in males, the prostate, maintaining continuity of organs for demonstration.
Dissect the female reproductive organs.
Examine the testes in males.
Examine the breasts in females and males.
Dissect the thyroid and, as appropriate, the parathyroid glands.
Remove the tongue and tonsils when appropriate.
Obtain samples of bones, bone marrow, peripheral nerve, and striated muscle.
Dissect the calf veins in cases of suspected pulmonary emboli.
Remove the brain in adult, pediatric and perinatal cases, using electric saw and hand tools as appropriate.
Be familiar with methods to remove the spinal cord partially by anterior approach, intact by posterior approach and via foramen magnum with cord extractor.
Weigh all organs and dictate a detailed gross description of major organs and organ systems.
Know how to take macroscopic photographs (and photomicrographs) that adequately document pertinent positive and negative findings.

Be familiar with special dissection techniques such as removing eyes, middle and inner ears, paranasal sinuses, and bones and joints as permitted by regulations of the institution, laws of the state, and wording of the autopsy permit.
Obtain tissue and or fluids for culture using sterile technique.
Obtain vitreous humor (medical legal cases and/or forensic rotation).
Select appropriate tissues for histologic examination
Know how to order and use appropriate special stains, immunohistochemistry, electron microscopy, and selection of materials for freezing or flow cytometry as appropriate.
Formulate diagnoses based on gross and microscopic examination.
Prepare well-organized, thorough provisional anatomic diagnoses (PAD).
Prepare final anatomic diagnoses (FAD) combining and integrating gross and microscopic diagnoses after review of case with staff pathologist.
Perform a pediatric and/or perinatal autopsy using appropriate physical measurements such as crown-rump and head circumference, etc.
Examine placenta and incorporate findings into perinatal autopsy.
Obtain appropriate tissue for cytogenetics.
Perform a complete autopsy independently by the end of final rotation.

**MEDICAL KNOWLEDGE:** Residents must demonstrate knowledge about established and evolving biomedical, clinical and cognate (e.g., epidemiological and social-behavioral) sciences and application of this knowledge to patient care in pathology. Residents should be able to:

Abstract pertinent information from the medical record necessary to perform a thorough autopsy and determine cause of death.
Determine which cases fall under the jurisdiction of the medical examiner/coroner for the particular state in which he or she is practicing.
Demonstrate an understanding of clinical signs, symptoms, and diagnostic studies and how they manifest themselves in pathology identified at autopsy.
Demonstrate knowledge of the gross and microscopic manifestation of disease by converting observations and findings at autopsy into diagnoses.
Prepare a thorough autopsy summary in which there is documentation of the cause of death and a clinicopathological analysis, integrating an understanding of the pathological basis for disease.
Perform an appropriate literature search to support pathologic findings.

**PRACTICE-BASED LEARNING AND IMPROVEMENT:** Residents must be able to demonstrate the ability to investigate and evaluate their diagnostic and consultative practices, appraise and assimilate scientific evidence, and improve their patient care practices. They should be able to:

Actively search for previous pathology diagnoses within the anatomic pathology database.
Make use of on-line resources to identify recent advances in understanding disease processes manifested in a particular autopsy case.

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.
Regularly attend departmental gross autopsy conferences in order to maximize exposure to findings of different diseases.
Accept and learn from constructive feedback and guidance from staff physicians, clinicians, laboratory supervisors, and house staff colleagues, and modify behavior as appropriate.

**INTERPERSONAL AND COMMUNICATION SKILLS:** Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange in teaming with other health care providers, patients, and patient's families. Residents should be able to:

Contact members of the clinical team and/or primary care provider prior to beginning the autopsy and elicit appropriate key information about the patient's medical history and determine specific questions to be addressed during the autopsy.
Present a concise organized clinical summary of the patient's history to the attending pathologist prior to beginning the autopsy.
Consult, interact with, and supervise technicians, medical students, and fellow residents during the performance of a case to obtain assistance without losing primary responsibility for the case.
Prepare and present cases at intradepartmental autopsy conference with synoptic clinical history and appropriate selection of organs for illustration of gross pathology.
Prepare and present cases at interdepartmental Morbidity and Mortality conferences with appropriate selection of pertinent pathologic findings.
Teach fellow residents, medical students and pathology assistants in various aspects of autopsy practice and the pathologic evaluation of organs and tissue.
Write a well-organized and grammatically correct final report with accurate listing of findings and clear presentation of cause of death and clinicopathologic correlation.
Produce a final protocol which thoroughly discusses the cause of death and progression of disease but which does not overly criticize or inflame a potential reader with regard to the quality of clinical care.
Communicate autopsy findings to clinicians and staff pathologists.
Meet or speak with families of the deceased to discuss findings in an open and supportive atmosphere (with appropriate supervision).

**PROFESSIONALISM:** Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents should:

Where appropriate, be able to assist clinicians and family members in obtaining proper informed consent for performance of an autopsy.
Demonstrate unconditional respect for the body of the deceased patient.
Demonstrate respect for the patient's and family's religious beliefs in relation to the autopsy
Demonstrate respect for clinical colleagues, ancillary laboratory staff, and the medical profession.
Promote the efficient, thorough, and expeditious performance of an autopsy so as not to

compromise family funeral arrangements or departmental work schedules.
Demonstrate an understanding of the importance of preserving patient privacy and confidentiality in the performance of the autopsy.
Gain a working knowledge of universal safety precautions and protect the safety of all employees taking part in the performance of a given autopsy.
Interact with and help fellow residents needing assistance in the performing of autopsies in order to assure efficient running of the service.
Respect the clinician's interpretations of patient care and consider the case from their point of view when dealing with apparent discrepancies.
Interact with clinical colleagues in a non-confrontational and professional manner in discussing issues of appropriateness of clinical care with reference to the case at hand.
Demonstrate an ability to communicate with family members regarding autopsies in general, and in particular, the findings of the case.

**SYSTEMS-BASED PRACTICE:** Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to call on system resources to provide pathology services that are of optimal value. Pathologists occupy a unique position with health care delivery. Free from the day-to-day details of direct patient care delivery, pathologists have the opportunity and obligation to analyze and explore human disease. Residents should acquire the ability to assume this role by learning to:

Actively seek out additional clinical/laboratory information by consulting patient care information systems within the hospital and consulting with clinicians.
Participate actively in programs of performance improvement within the health care system, such as identifying and reporting major unanticipated diagnoses and presenting cases at Morbidity and Mortality conferences.
Demonstrate an awareness of regulations such as CLIA (Clinical Laboratories Improvement Act), HIPAA (Health Insurance Portability and Accountability Act) Privacy and Security rules, and CAP laboratory accreditation standards.
Advocate for the role of the autopsy in performance improvement, promoting the practice of obtaining autopsy permissions to other departments within the institution.
Complete the PAD within 2 working days and the final autopsy protocol within 60 working days such that the findings can be released to family and clinicians. Follow the autopsy reporting requirements in the CAP Laboratory Accreditation Program.
Collaborate with other members of the health care team to improve patient care by learning from the autopsy results and developing evidence-based health care delivery strategies.
Demonstrate judicious use of special procedures such as freezing and retaining tissues and performing cultures to assure accurate diagnoses without over utilizing laboratory resources.
Understand how diagnoses are coded for retrieval by a lab information system and how to retrieve diagnoses for use in studying human disease while maintaining patient confidentiality.
Understand the role of the autopsy in quality assurance and risk management.