**Autopsy Rotations Goals and Objectives**

**Rotation Director:** Jeffrey Jentzen, M.D., Ph. D.

The goal of the **First Autopsy Rotation** is for the resident to move from being a

**Novice** (A novice knows little about the subject, and rigidly adheres to rules with little situational perception. He/she does not feel responsible for outcomes.)

To

**Advanced Beginner** (The advanced beginner is still dependent on rules, but can adapt rules to changing circumstances. However, all attributes of a situation tend to be given equal importance, and there is still little feeling of personal responsibility for outcomes.)

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<tr>
<th>First Rotation Goals</th>
<th>First Rotation Objectives</th>
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<tr>
<td><strong>Medical Knowledge</strong></td>
<td>The resident:</td>
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<tr>
<td>Acquires knowledge of pathophysiology and laboratory manifestations of routinely-encountered conditions; knows where to access information to fill gaps in knowledge.</td>
<td>• Understands the basic pathophysiology of the types of diseases and injuries that are common to the autopsy service</td>
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<td>• Understands autopsy safety procedures</td>
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<td>• Is knowledgeable about autopsy consents and factors that render a consent unacceptable</td>
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<td>• Recognizes next of kin hierarchy</td>
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<td>• Understand the basic histology of common diseases evident on microscopic slides</td>
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<td>• Understands basics of death certification</td>
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<td><strong>Patient Care</strong></td>
<td>With appropriate supervision (see below), the resident will:</td>
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<td>Is able to perform procedures necessary to generate laboratory information, gather clinical information needed to establish a diagnosis, and make observations relevant to the clinical situation.</td>
<td>• With faculty, review autopsy consent for completeness and validity</td>
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<td>• Preview the medical record before beginning the autopsy and gather essential information</td>
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<td>• Performs basic autopsy dissection of organs and tissues</td>
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<td>• Record appropriate measurements and weights</td>
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<td>• Accurately present gross autopsy findings to supervising faculty</td>
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<td>• Select and recover appropriate tissue sections for microscopic examination</td>
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<td>• Obtain routine and specialized photographs of the body and organs as indicated to document disease, injury, or other pathological findings</td>
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<tr>
<td><strong>Practice-based Learning and Improvement</strong></td>
<td><strong>Interpersonal and Communication Skills</strong></td>
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<tr>
<td>Uses feedback and evaluations to generate or modify learning plan and improve skills.</td>
<td>Establishes collegial interactive and communication skills in dealing with others; structures reports that are clear, succinct, and follow templates; listens to and fulfills requests from other providers.</td>
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</table>
| The resident:  
  - Consult medical references relating to diseases encountered  
  - Improve dissection skills based on experience gained in previous cases  
  - Improve in selection of meaningful microscopic sections based on feedback from slide review with faculty  
  - Respond to questions raised at autopsy conferences by seeking additional clinical or reference information | The resident will  
  - Verbally communicate with the referring care providers regarding the patient’s clinical conditions and expectations of the autopsy  
  - Effectively communicate the relevant clinical information and questions to the supervising faculty in the pre-autopsy meeting  
  - Succinctly and accurately describe the case and the findings at autopsy conference (morgue rounds)  
  - Dictate the autopsy protocol using the provided template  
  - With direct faculty guidance, prepare presentations for interdepartmental conferences (such as M&M conferences) |
| **Professionalism** | **Systems-based Practice** |
| Is honest, compassionate, and respectful of others; complies with laws and regulations pertaining to medical practice; fulfills patient care and educational responsibilities faithfully. Understands professional responsibility to appear for duty rested and fit to provide service. | Identifies issues related to error, cost, and the need for interdisciplinary collaboration in the delivery of health care. Conducts handoff at the conclusion of rotation with care and thoroughness. |
| The resident:  
  - Maintain ethical principles pertaining to confidentiality of patient information acquired during the handling of hospital autopsy, medicolegal, and pediatric autopsy cases  
  - Attends autopsy and forensic conferences  
  - Complete uncomplicated autopsies in 30 days or less, and all autopsies in 60 days or less  
  - Practice considerate, ethical and respectful behavior with faculty, peers, clinical, technical and clerical staff | The resident:  
  - When appropriate, participates in tissue procurement  
  - Provide written preliminary autopsy findings to clinical team within 24 hours  
  - With faculty, completes quality assurance form that is returned to clinical service |
The goal of the **Second Autopsy Rotation** is for the resident to move from being an **Advanced Beginner** (The advanced beginner is still dependent on rules, but can adapt rules to changing circumstances. However, all attributes of a situation tend to be given equal importance, and there is still little feeling of personal responsibility for outcomes.) to **Competent** (The competent learner grasps the relevant facts, can sort information by relevance, can bring his/her own judgment to each case, and solve problems. Guidelines are adapted to unexpected events. He/she feels accountable for outcomes because of increasing decision-making.)

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<tr>
<th>Second and Third Rotation Goals</th>
<th>Second and Third Rotation Objectives</th>
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<tr>
<td><strong>Medical Knowledge</strong></td>
<td>The resident will acquire knowledge about</td>
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<td>Acquires knowledge of less commonly-</td>
<td>• The role of special studies in autopsy practice, including immunohistochemical stains,</td>
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<td>encountered conditions and laboratory</td>
<td>molecular and cytogenetic studies, pharmacogenomics and toxicology</td>
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<td>techniques; critically evaluates</td>
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<td>knowledge sources and uses evidence-</td>
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<td>based approach to acquire new knowledge.</td>
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<td><strong>Patient Care</strong></td>
<td>With appropriate supervision (see below), the resident will</td>
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<td>Uses laboratory data and own observations</td>
<td>• Perform specialized dissections, including leg vein dissection, removal of eyes, spinal cord,</td>
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<td>to generate accurate diagnoses and</td>
<td>layered neck structures, brain, conduction system of heart</td>
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<td>differential diagnoses; suggests</td>
<td>• Understand sexual assault testing and fingerprinting</td>
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<td>appropriate ancillary studies as needed;</td>
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<td>responds to requests for consultation.</td>
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<td><strong>Practice-based Learning and Improvement</strong></td>
<td>The resident:</td>
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<td>Adapts practices based on literature</td>
<td>• Use available information technology to support their own education, including medline</td>
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<td>review, case outcomes, peer reviews,</td>
<td>searches and web-based sites that support autopsy pathology learning</td>
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<td>and system demands; seeks and gives</td>
<td>• Prepare a case study for conference presentation (morning Clinical Perspectives series) and,</td>
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<td>feedback to improve self and others.</td>
<td>ideally, for publication</td>
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<td>• Prepare autopsy reports that are clear and appropriate to the intended recipients, needing</td>
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<td>only slight editing by faculty</td>
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<td><strong>Interpersonal and Communication Skills</strong></td>
<td>The resident will</td>
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<td>Effectively communicates in a variety of</td>
<td>• Take and active, independent role in autopsy consultative discussions with clinical care</td>
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settings, including during conferences, while providing consultations, and teaching peers.

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<th>Professionalism</th>
<th>Providers and pathology staff</th>
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<td>Manages patient care duties and interacts with other providers with compassion and respect for diversity; recognizes and responds to need for help from colleagues.</td>
<td>• Prepare cases for conference presentation and/or publication with indirect guidance by faculty</td>
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<td>• With direct faculty supervision, communicate with families, death investigators, and law enforcement officials</td>
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<tr>
<th>Systems-based Practice</th>
<th>The resident:</th>
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<td>Improves patient outcomes and promotes efficiency by making decisions based on best evidence of outcomes, and by involvement in quality initiatives.</td>
<td>• Practice accountability to the needs of patients’ families and care providers that supersedes self-interest</td>
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<td>• Demonstrate a commitment to excellence</td>
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<td>• When requested, assists others to deliver quality autopsy services</td>
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| The resident: |
| Make accurate and timely diagnoses supplemented by cost-effective use of special stains and other ancillary studies |
| Achieve increasingly rapid turnaround time for autopsy final reports |

The goal of the **Final Autopsy Rotation** is for the resident to move from being

**Competent** (The competent learner grasps the relevant facts, can sort information by relevance, can bring his/her own judgment to each case, and solve problems. Guidelines are adapted to unexpected events. He/she feels accountable for outcomes because of increasing decision-making.)

To

**Proficient** (Characterized by the progress of the learner from step-by-step analysis and task performance to a holistic perception of the entirety of the situation. Uses pattern recognition arising from experience to identify problems. Perceives deviations from what is expected. Learns from the experience of others. Sense of responsibility grows with increasing decision-making.)
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<tr>
<th>Final Rotation Goals</th>
<th>Final Rotation Objectives</th>
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<tbody>
<tr>
<td><strong>Medical Knowledge</strong></td>
<td>The resident will understand</td>
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<tr>
<td>Exercises judgment in application of evidence-based knowledge to patient and to patient population; assists junior residents and other learners in accessing sources of medical knowledge.</td>
<td>• Medico-legal evidence collection and chain of custody considerations</td>
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<td>• The definitions of legal procedures, including subpoenas, depositions, and courtroom procedures</td>
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<tr>
<td><strong>Patient Care</strong></td>
<td>The resident will</td>
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<tr>
<td>Recognizes clinical cases and circumstances that are rare or unique and selects appropriate additional studies; initiates consultant role in unusual cases; directs other providers and learners in challenging situations.</td>
<td>• Perform autopsies independently, after communicating with clinical care team, reviewing records, and generating expectations for autopsy</td>
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<td>• Devise focused dissection approaches to address unusual clinical questions</td>
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<td>• Have completed at least 50 autopsies, and/or take steps to be sure this is accomplished</td>
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<td>• Resolve issues of autopsy consent</td>
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<td>• Observe a deposition</td>
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<tr>
<td><strong>Practice-based Learning and Improvement</strong></td>
<td>The resident:</td>
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<td>Facilitates collaboration and teamwork to improve patient care and promote learning.</td>
<td>• Learns by teaching and guiding others, including junior residents, house offices from other services, and medical students</td>
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<td>• Is able to use the autopsy findings, together with other information, to build an explanation for the patient’s clinical course</td>
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<tr>
<td><strong>Interpersonal and Communication Skills</strong></td>
<td>The resident will</td>
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<td>Demonstrates skill in dealing with conflicting opinions or perspectives; responds independently to questions from other providers, patients, and families; generates sophisticated reports that relay information about complex cases.</td>
<td>• Use tact and judgment in communicating autopsy findings that are unwelcome to care providers</td>
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<td>• Independently field questions from clinical team and proactively contact them with information that is important to understand the care of the patient before death</td>
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<td><strong>Professionalism</strong></td>
<td>The resident:</td>
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<td>Recognizes impairment in themselves and peers and takes steps to address this. Mentors others in use of inter-professional and multi-disciplinary collaboration; is a mentor.</td>
<td>• Serve as an example to junior residents and medical students regarding appropriate conduct</td>
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<td>• Recognizes when self or others need more expert assistance</td>
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role model to other learners regarding accountability to self and others.

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<th>Systems-based Practice</th>
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<tr>
<td>Identifies sources of error and inefficiency and initiates action to assess and fix; acts as a consultant in conducting cost benefit analysis</td>
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The resident:
- Attends courtroom presentations of autopsy case material
- Understands how their handling of autopsy cases affects other health care professionals, the health care organization (risk management), and the larger society.
- Establish accurate diagnoses of epidemiologically important infectious diseases or genetic disorders
- Recognizes situations that require special handling
- Recognizes consistent approaches to reducing errors and improving patient care

Plan for Training

Residents are expected to complete three months of autopsy service. The rotation in autopsy pathology is designed to provide the resident with experience in hospital, pediatric and medicolegal cases. Each resident should conduct a minimum of 50 autopsies under the direction of the attending pathologist or designee. Up to 10 autopsies may be performed in association with another resident.

Resident expectations:

a. Gather essential and accurate clinical information regarding the patient upon receipt of the autopsy consent. Review all available clinical information in CareWeb, such as radiological studies and reports and/or slides of previous pathologic specimens. Discuss the clinical history and goals of the autopsy with the clinician or designee (document in GPD), and with the staff pathologist before beginning the case.

b. Perform a complete autopsy with gross dissection and examination of pathology specimens, with increasing independence as experience is gained, including:
   a. Selection and recovery of appropriate tissue sections for microscopic examination
   b. Obtaining routine identification photos as well as appropriate photographs when indicated to document injuries, natural disease, or pathological findings. (Review Camera Operation).
c. Record accurate measurements and weights

d. Document autopsy findings by photographs, written reports, and sketches, if necessary

e. Perform specialized dissections

f. Procedures essential for autopsy practice are found on the Autopsy W Drive under Summary of Autopsy Components (Attachment No. 9).

c. Render informed decisions regarding diagnostic workup of autopsy specimens (special stains, deeper sections, electron microscopy, etc.) based on the patient’s clinical history, current scientific evidence gathered from textbooks, journal articles, internet-based searches and clinical judgment.

d. Provide effective communication of preliminary autopsy results by electronic mail or verbally, the Gross Pathologic Diagnosis (GPD) to clinicians within 24 hours of completing the autopsy (see GPD template).

e. Prepare and present autopsy results at gross pathology and other conferences.

f. Complete cases in a timely manner. The goal of completing the autopsy is fourteen (14) days, with a maximum of 30 days. Complex cases requiring additional studies (neuropathology or cardiac pathology review) may be extended not more than a total of 60 days. All pertinent findings should be discussed in the report.

g. Participate in pediatric autopsies as indicated. Pediatric cases, with the exception of medical examiner and teratology cases, are the responsibility of the pediatric pathology service. Upon receipt of a pediatric case, pathology staff notifies the pediatric pathology staff, pediatric pathology fellow, and/or pediatric pathology resident. If there is not assigned pediatric fellow or resident, the autopsy service resident will perform the case.

h. Perform/assist in medicolegal autopsies, the level of involvement depending on the type of case

i. Attend and present findings at weekly autopsy conference, Clinical Perspectives conference, and various interdepartmental conferences

j. Consult textbooks, journals, and online resources as appropriate to sign out cases.

k. Maintain an autopsy log

l. Review CAP Autopsy and forensic teaching sets

m. Publish one autopsy-based paper in case report format in a peer-reviewed journal

Supervision
The following activities are to be conducted with **Direct Supervision** (the supervising physician is physically present with the resident):

At least the first three complete autopsies, and key portions of other autopsies, depending on faculty assessment of ability.

Review of microscopic sections in preparation of final report.

The following activities may be conducted with **Indirect Supervision** (direct supervision immediately available either within the hospital of by telephonic or electronic communication):

Portions of autopsies after the first three that the faculty supervisor designates the resident to do with indirect supervision.

Communication with clinical team.

Preparation for and presentation of autopsy-related findings at department or extradepartmental conferences.

The following activities may be conducted with **Oversight** (the supervising physician is available to review with feedback after activity is completed):

Preliminary review of microscopic sections.

Dictation of gross findings, GPD, and final report.

**Evaluation**

- Electronic (MedHub) evaluation completed by faculty at the conclusion of each rotation
- 360 evaluation completed by fellows and technical staff semi-annually
- Resident Inservice Examination (annually)