

## Sub-Internship Description

**Campus:** Northeast (Grand Forks)

**Acting Internship Title:** Autopsy/Forensic Pathology Sub-I

**Department:** Pathology

**Course Number:** PATH 9302

**Location of Acting Internship:** UND Forensic Pathology, 1451 44th Ave S, Unit G, Grand Forks

**Preceptor(s):** Dr. Mary Ann Sens & Dr. Susan Roe

**Phase Available:** ONLY Phase 3

**Period(s) offered:** All

**Number of students per period:** 1

**Purpose:** To learn how to perform an autopsy, a skill required of first year pathology residents, and to learn the associated activities, including proper certification of cause and manner of death

**Objectives:** After completing the acting internship, the student will be able to

1. Obtain scene investigation information (either through direct participation or via communication with the death investigation) and perform an autopsy, including external and internal examination and collection of specimens for toxicologic analysis (*competency 3.1, 3.6*)
2. Present autopsy findings to the staff pathologist (*competency 3.7*)
3. Based upon the scene investigation and autopsy findings, determine the cause and manner of death (*competency 3.3*)
4. Select adjunct testing to supplement autopsy findings (*competency 3.2*)
5. Document the autopsy in a timely fashion (*competency 3.7*)
6. Communicate with patients' families and clinicians regarding autopsy findings (*competency 4.1, 4.2*)
7. Research a pathologic condition related to the autopsy and discuss its clinical correlation (*competency 1.8, 1.9*)
8. Formulate or update an accurate final problem list for autopsy patients. (*competency 3.7*)

**Specialty Specific Objectives:** (These should be linked to EPAs and Year 4 learning objectives which can be found at <https://med.und.edu/education-resources/phase3.html#Yr4O> under “Overview & Objective) Please include any procedures the student will be expected to perform.

8. Interpret an autopsy permit for validity (*competency 3.4*)
9. Based upon the scene investigation, determine whether or not a forensic autopsy is warranted and justify clinical reasoning in this decision. In addition, describe possible adverse outcomes (e.g., potential miscarriage of justice, risk to public health, incorrect determination of cause and manner of death) when the decision of whether or not to perform an autopsy is made incorrectly. (*competency 3.4*)
10. Based upon medications and other drugs found at the scene and upon toxicologic analysis of fluids obtained at autopsy, determine pathologic conditions the deceased was being treated for and recognize aberrant prescription drug use, including possible drug overdoses, and potential therapeutic complications. (*competency 3.3*)
11. Identify common pathologic conditions at autopsy. (*competency 2.2, 2.3*)
12. Recognize unusual or unexpected findings found at autopsy. If these are discrepant with clinical or other historical information, provide assessment and potential reporting or action items. Recognize reportable conditions at autopsy (infections, biohazard, unexpected unnatural deaths, work injuries, reportable injuries / abuse) and identify appropriate reporting procedures and actions. (*competency 2.2, 2.3, 3.3*)

In many deaths, this may be referral to appropriate quality assessment and management committees within a health care system, such as peer review panels, consensus case review conferences, morbidity and mortality conferences, CPC's etc. In others, it may involve reporting to child or elder abuse agencies, health departments for infectious agents / hazards, work or safety. It may involve recognizing unsuspected unnatural deaths and reporting to the correct jurisdiction and agency.

Comment: as objectives for a rotation in the field of pathology are different than those for typical clinical rotations (e.g., internal medicine, surgery), the standard objectives do not easily apply. The objectives listed above are specific to this rotation in pathology; however, their clinical equivalents are listed in the Addendum.

**Instructional Activities:** During this elective, the student will be involved in/experience:

1. In a step-by-step fashion, the student will learn how to perform an autopsy, and learn the associated procedures (i.e., assessing a permit, determining cause and manner of death, using adjunct testing material such as toxicology testing, completing the death certificate), starting with observation, progressing to dissection of select organs, and finishing with performing a complete autopsy.
2. If possible, attend at least one death scene investigation with the death investigator assigned to the case or with the forensic pathologist.
3. Attend informal lectures covering basic areas of autopsy/forensic pathology.
4. Conduct a review of a pathologic condition of their choosing and give a short presentation regarding that condition.

**Evaluation Methods:** The preceptor will:

1. By direct observation, evaluate the student's ability to perform a complete autopsy, including external examination, internal examination, and collection of toxicologic specimens (*Objectives #1,2*)
2. By verbal discussion or review of written work, evaluate the student's ability to determine the cause and manner of death and properly complete the death certificate (*Objectives #3, 9-12*)
3. By direct observation, verbal discussion or review of written work, evaluate the student's selection and interpretation of toxicologic and adjunct testing related to the autopsy (*Objective #4*)
4. By direct observation, evaluate the student's documentation of an autopsy (*Objectives #2, 5,6,8*)
5. Administer a 30-point image-based quiz of commonly encountered pathologic findings at autopsy.
6. Observe the student's presentation on their chosen pathologic condition for discussion.

Comment: as evaluation methods for a rotation in the field of pathology are different than those for typical clinical rotations (e.g., internal medicine, surgery), the standard evaluation methods do not easily apply. The evaluation methods listed above are specific to this rotation in pathology; however, their clinical equivalents are listed in the Addendum.

## **Assessment:**

Evaluation methods #1-3 will be assessed using the Entrustability scale.

Level	Descriptor	Example
1	"I had to do"	Requires complete hands on guidance, did not do, or was not given the opportunity to do
2	"I had to talk them through"	Able to perform tasks but requires constant direction
3	"I had to prompt them from time to time"	Demonstrates some independence, but requires intermittent direction
4	"I need to be there in the room just in case"	Independence but unaware of risks and still requires supervision for safe practice
5	"I would not have needed to be there other than to fulfill regulatory requirements"	Complete independence, understand risks and performs safely, practice ready

*\*This scale was adapted from the Ottawa surgical competency operating room evaluation (O-SCORE): A tool to assess surgical competence. Acad Med. 2012; 87:1401-407.*

Please indicate below the method of assessment for the specialty specific evaluation methods.

1. Each of the following activities (#a-j) will be graded based upon the Entrustability scale by the pathologist who witnesses the activity:
  - a. Determine validity of autopsy permit.
  - b. Collection of vitreous fluid, blood, urine and liver for toxicologic analysis.
  - c. Determination of cause and manner of death, and verbal report to attending pathologist as to how to complete death certificate (to be completed at least five separate times during rotation).
  - d. Closure of the body following autopsy.
  - e. Complete external examination and report findings to attending pathologist verbally.
  - f. Complete external examination and document findings in report submitted to attending pathologist.
  - g. Dissection of abdominal and pelvic organs.

- h. Dissection of heart and lungs.
  - i. Dissection of brain.
  - j. Completion of autopsy, including external examination, internal examination, and collection of fluids for toxicological analysis.
- 2. Activity #5 (quiz) will be a fill-in-the-blank, graded by the preceptor.
  - 3. Activity #6 (student presentation) will be graded on a pass/fail basis, as determined by the preceptors in attendance

Please indicate who will be completing the assessment. If more than one preceptor, how will scores be compiled?

Each forensic pathologist who observes a 1a-j. above done by the student for the purpose of evaluation will submit an Entrustability scale score.

The Entrustability scale score for each activity above will count equally, with the final score being an average of all scores.

## **Grading Criteria:**

To receive honors, the student must:

- Achieve an average Ottawa score of at least 4.0
- Obtain a score of 26 or higher on the end of rotation quiz
- Completion of all activities listed under Assessment above
- Have no ratings of 2 or lower

To pass the Sub-I, the student must:

- Achieve a mean rating of at least 3.0 on the Ottawa scale
- Obtain a score of 19 or higher on the end of rotation quiz
- Completion of all activities up to and including 1.h. in Assessment above
- Have no ratings of 2 or lower

If the student does not pass, remediation will consist of:

If a student fails an Sub-I, the Sub-I director and campus dean will work with the student to form a written remediation plan (signed by all 3) that specifically addresses the competencies that the student did not meet during the rotation. A copy of this plan will be sent to the Office of Student Affairs. Remediation will consist of conversion of their presentation given during the rotation to a ready-for-publication paper format. In order to pass the Sub-I, the student will be required to meet the original passing requirements. A student may not receive honors on an Sub-I that was initially failed.

## **ADDENDUM**

## **OBJECTIVES**

**Objective 1:** Specialty specific equivalent: Obtain a history and perform a physical exam EPA #1 Year4 LO #1

**Objective 2:** Specialty specific equivalent: Present the history and physical in a concise, well-organized format EPA #6 Year4 LO #2

**Objective 3:** Specialty specific equivalent: Form and prioritize a differential diagnosis. Select a working diagnosis. EPA #2 Year4 LO #3

**Objective 4:** Specialty specific equivalent: Select screening and diagnostic studies and labs and interpret the results of these tests. EPA #3 Year 4 LO #4, 14

**Objective 5:** Specialty specific equivalent: Document the clinical encounter in a timely fashion EPA #5 Year4 LO #2

**Objective 6:** Specialty specific equivalent: Communicate effectively with patients and their families regarding diagnoses and plans of care with respect for cultural and socioeconomic backgrounds. Year4 LO # 6

**Objective 7:** Specialty specific equivalent: Research a clinical question relating to patient care with appropriate evaluation of resources and use of evidence-based information. EPA #7 Year 4 LO #13

**Objective 8:** Specialty specific equivalent: EPA 11: Obtain informed consent for tests and/or procedures

**Objective 12:** Specialty specific EPA 13: Identify system failures and contribute to a culture of safety and improvement.

## **EVALUATION METHODS**

*Evaluation method 1:* Clinical equivalent: By direct observation evaluate the student's ability to perform a complete history and physical pertinent to the Sub-I specialty and present his or her findings.

*Evaluation method 2:* Clinical equivalent: By direct observation or review of written work evaluate the student's ability to form a complete differential diagnosis and select a working diagnosis.

*Evaluation method 3:* Clinical equivalent: By direct observation, verbal discussion or review of written work, evaluate the student's selection and interpretation of screening and diagnostic laboratory tests.

*Evaluation method 4:* Clinical equivalent: By direct observation evaluate the student's documentation of clinical encounters.