DES MOINES UNIVERSIT

PATHOLOGY

Office for Clinical Affairs
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General Description

Elective/ Selective Rotation

This rotation is a two (2) week experience intended to provide an introduction to the practice of pathology in a hospital setting. Most students electing this rotation will be in their third year of osteopathic medical school although fourth year students are eligible.

This rotation is intended to further develop the student's decision-making, cognitive skills and continue to apply didactic material in a clinical pathology setting. The student should observe and take part in the actual examination, description, dissection, and diagnosis of surgical tissues, when appropriate. Early in the rotation the student may assist in autopsies by reviewing the clinical records, helping with the performance of the autopsy, assisting in making reports on the gross and microscopic findings, and participating with staff in arriving at the final diagnosis. Full attendance at slide conferences, clinical pathology conferences, gross pathology conferences, and autopsies is expected. Students will be fully prepared for the various conferences and will be called upon to participate in all discussions.

A post-rotation examination is **not** currently required.

Purpose

Clinical experiences are intended to assist the student's transition from didactics to integrated clinical evaluation, decision-making, and management of patients with medical problems. In addition to gaining specific skills in pathology during this rotation, the student should also develop skill in systematic medical problem solving and patient management abilities, establish or reinforce patterns of independent learning and self-evaluation, and improve skills in communication and medical record keeping.

Objectives

Students should learn how to evaluate laboratory and pathologic testing, including pitfalls related to specimen collection, handling methologies, and the skills of individuals performing those tests. Greater knowledge about laboratory tests will not only enable testing to be used more effectively but will also allow more and better understanding of the nuances and interpretation of laboratory evaluations. Therefore, the student should:

1. understand the pathologic basis of disease for which a particular test is performed.
2. understand the limitations of such studies in order to be able to critically select proper tests suited to a particular diagnostic problem.
3. understand the principles considered in test selection for screening, diagnosis treatment and monitoring of disease.
4. be able to evaluate the timeliness and appropriateness of the testing.
5. understand the benefits and limitations of test results in arriving at specific diagnostic end points.
6. be able to interpret the following specific laboratory tests:
    a. Gram-stained specimens of sputum, urine and wound drainage
    b. dipstick urinalysis and microscopic examination of urine sediment
    c. Wright's-stained peripheral blood smears for RBC, WBC and platelets
    d. occult blood testing of fecal samples
7. Students should also be familiar with the following:
    a. blood bank and serology testing
    b. blood chemistries
    c. diagnostic biopsies
    d. hematologic tests (e.g. blood counts, etc)
    e. urine testing other than dipstick and microscopic

Implementation

Course objectives are to be accomplished in a College affiliated hospital or clinical facility, under supervision. Basic objectives **must** be covered during the rotation to assure adequate student preparation for Board examinations and other evaluations such as post-rotation examinations. The use of diverse methods appropriate to the individual and the clinical site are encouraged, but patient-centered teaching is optimal.

Didactic methods to achieve required objectives include:

- reading assignments
- lectures
- computer-assisted programs (if available)
- student attendance at/participation in formal clinical presentations by medical faculty

Clinically oriented teaching methods may include:

- assignment of limited co-management responsibilities under supervision
- participation in pathology rounds, daily patient rounds and conferences
- supervised and critique case evaluations
- assigned, case-oriented reading case presentations

Three levels of achievement are identified:

- familiarity with a variety of medical procedures through observation and assisting
- proficiency in clinical procedures through actual supervised performance
- awareness of the availability of various medical procedures and their use.

Autopsy Pathology

Autopsy pathology is the practice of medicine that directs its efforts to the scientific study of the human body after death.

The objective of the autopsy includes the following:

- the evaluation of clinical diagnoses
- the detection and diagnosis of unsuspected disease
- the study of the cause, nature, and development of disease
- determination of the cause of death

The autopsy is a professional activity that requires the application of extensive knowledge and technical ability to the art and science of its performance and interpretation. Assisting or watching an autopsy is by far the easiest and the most interesting way to learn pathology. To get the full value from a postmortem examination, write a short note about the main features of the case.

Evaluation of students should be completed on the E*Value on-line system within one week from completion of the rotation. On the last day of service, the supervising physician should review the student's performance with the student.

Texts and Resources

Required Assignment Text

Henry, JB (ed), Clinical Diagnosis and Management by Laboratory Methods, Latest Edition, Philadelphia: W. B. Saunders.

Assignments

1. For each of the major objectives, find and read the related chapters, readings, etc., in assignment text.
2. Read Chapter 1 in assignment text.
3. Read chapters on anemias from any recognized hematology text.