

Hematopathology Rotation - Objectives

Patient Care

- A. Procedural skills.
 1. **Objective:** Gain proficiency in performing bone marrow aspiration and biopsy procedures and grossing and triaging lymph node biopsies for histopathology as well as any appropriate ancillary studies.
 2. **Plan:** The senior residents will report to the PMH Heme/Oncology clinic on Thursday mornings to perform bone marrow aspiration and biopsy under the supervision of the Heme/Onc attending or fellows. Each resident is expected to participate in at least 8 procedures and primarily perform at least 6. The residents are responsible for maintaining a log of each bone marrow procedure they perform. A copy of the log will be provided to the Director at the end of the rotation. The resident on the service is expected to gross lymph node biopsies and will first observe the procedure performed by one of the hematopathology fellows or a senior resident. Detailed written instructions for submitting biopsied lymph nodes is provided during the rotation orientation. During the procedure, the resident will make a touch preparation of the nodes and examine the "diff-quick" stained slides. Based on the morphologic impression, they will select ancillary tests for which dissected tissue will be submitted (flow cytometry, cytogenetics, molecular diagnosis, or culture). The resident may review the slides of the touch preparation with the attending hematopathologist for decision making if questions arise.
 3. **Assessment:** Resident performance will be assessed through direct observation by hematopathology faculty, fellows, and clinicians and by reviewing the bone marrow biopsy log.
- B. Interpretive skills.
 1. **Objectives:** Be able to evaluate and interpret peripheral blood and body fluid smears, bone marrow aspirates and core biopsies, lymph node biopsies, any hematomphoid infiltrate in other organ/systems, and a variety of hematology tests including CBC, reticulocyte counts, Kleihauer-Betke test for fetal hemoglobin, osmotic fragility, sickle cell screen, hemoglobin electrophoresis, and flow cytometric analysis.
 2. **Plan:** In the first 2 weeks of the rotation, residents will participate in scheduled morning sessions in the bone marrow and hematology laboratories at mutually agreeable times. These sessions will include basic blood and marrow cell morphology at a multi-headed microscope, at-the-bench sessions, and basic instrumentation issues and quality assurance and control. Hematology fellows and senior residents will teach residents how to perform bone marrow and peripheral differential counts at the beginning of the rotation. The residents will be expected to prepare the assigned cases, including gathering appropriate clinical and laboratory data, reviewing the morphology, performing differential counts when applicable, and formulate their own impressions and diagnoses prior to reviewing the cases with the attending hematopathologist. The hematopathologist will discuss the cases with the residents during sign-out and finalize the diagnosis. Residents are assigned to Children's Medical Center on a rotating basis to prepare morphologic reports on pediatric bone marrow and body fluids. Generally there is sufficient time for the CMC resident to sit in on the sign-out at Parkland and vice versa.
 3. **Assessment:** The resident's performance will be assessed through direct observation by hematopathology faculty and fellows, as well as through oral quizzes during daily sign-out and unknown conferences.