



Educational Goals and Objectives for Rotations on: Hematology/Oncology

Educational Content

- The resident will learn the pathophysiology, prevention, evaluation and management of common hematology problems including: anemia and abnormalities of peripheral blood smear, hemoglobinopathies, bleeding, bruising, petechia, family history of anemia or bleeding disorder, lymphadenopathy, pallor or fatigue, recurrent infections, fever/neutropenia, splenomegaly, venous or arterial thrombosis, polycythemia, neutropenia, leukocytosis, thrombocytopenia, thrombocytosis, coagulopathy, and common hematologic malignancies.
- The resident will learn the pathophysiology, prevention, evaluation and management of common oncology problems including: ascites, bleeding, bowel obstruction, cough, hoarseness, hemoptysis, lymphadenopathy, soft tissue mass, organ enlargement, pleural or peritoneal effusion of unknown cause, sensory polyneuropathy, superior vena cava syndrome, weight loss, lung cancer, breast cancer, colorectal cancer, prostate cancer, pancreatic cancer, urinary tract malignancies, uterine (including cervical) cancer, lymphoma, gastric cancer, ovarian cancer, skin cancer (including melanoma), head and neck cancers, and esophageal cancer.

Patient Care: History Taking

PGY 3

- Take a complete history and physical of the cancer patient.
- Construct a complete differential diagnosis for a wide variety of medical problems encountered by patients in the hematology/oncology practice.
- Select appropriate hematologic/oncologic diagnostic studies and understand the significance of their results.
- Perform common diagnostic studies and, as appropriate, appreciate their difficulty, the impact on patients, and advantages and shortcomings of the studies.
- Correctly interpret peripheral blood smears demonstrating normal findings and common abnormalities.

Residents are expected to be approaching competence and ready for independent practice. The resident at this level should be not only able to manage the patient's correctly and quickly but they should also be able to teach others particularly Junior students and junior residents about the conditions and the evidence behind the treatment protocols.



Medical Knowledge

PGY-3

- Reflect satisfactory understanding of the common hematologic and oncologic conditions noted above under the Educational Content.
- Understand the indications and limitations as well as technical aspects of common diagnostic procedures including:
 - Bronchoscopy and mediastinoscopy
 - Open lung biopsy and mediastinotomy
 - Mammography
 - Needle aspiration (breast and others)
 - Breast biopsy and axillary node dissection
 - Bone marrow aspiration and biopsy
 - Upper and lower GI endoscopy
 - Prostatic ultrasound and biopsy (transrectal and TUR)
 - Nuclear imaging studies, including PET
- Understand the indications, limitations, and technical aspects (lab and clinical) of transfusion of blood products.
- Understand the basic principles of major modalities of cancer treatment including:
 - Chemotherapy
 - Surgical treatment
 - Radiation therapy
 - Immunotherapy
- Understand the importance of adequate symptom management and demonstrate knowledge of specific techniques for control of pain, nausea, and anxiety.

Medical decision making and medical management:

By completion of the rotation, residents should be able to:

- Integrate history, physical exam, and diagnostic studies to formulate a differential diagnosis, diagnostic plan, and initial management plan for common hematologic and oncologic syndromes:
 - anemia and other cytopenias
 - disorders of homeostasis and clotting
 - newly diagnosed common tumors (breast, colon, prostate, lung and hematologic malignancies)
- Under supervision, properly order transfusion of blood products
- Under supervision, provide appropriate palliative care

Residents should demonstrate the highest level of medical knowledge and be exceeding a feeling of ready for independent practice. Having been through the hematology oncology rotation in the in the PGY 2 rotation that is resident at this level should be looking for journals and communicating knowledge about hematology and oncology conditions by discussing research and literature. Resident at this level is expected to be participating fully in tumor boards and conversations with the faculty on the rotation.



Interpersonal and Communication Skills:

PGY3

- Demonstrate satisfactory communication skills necessary for the care of the dying patient and his/her family.
- Demonstrate clear and effective communication in the role of consultant.

Residents should be most proficient level able to negotiate and discuss the management plan. They should be having patients to teach back methodology in order to ensure full comprehension of the patient. They should be having communications with nurses and other caregivers that models their leadership abilities.

Evaluation Methods: Mini Cex, End of Rotation Competency Tool

Professionalism:

- Exhibit consistently responsible, sensitive, and ethical behaviors.
- Demonstrate punctuality and personal responsibility for attendance at learning opportunities.
- Competently work with patients regarding advanced directives, DNR status, futility, and withholding or withdrawing therapy.

Residents are expected to demonstrate a professionalism that is ready for independent practice if not role model already.

Practice Based Learning and Improvement:

PGY3

- Understand the design of oncologic trials and the implications for clinical practice.
- Demonstrate a commitment to continuous improvement, both in personal development and in a constructive approach to the clinical curriculum and clinical operations.
- Demonstrate critical appraisal of literature relating to hematology-oncology care, and constructively participate in small group discussions, including journal club.
- Demonstrate active case-based reading.

Residents should be fully competent at inviting feedback from every lev of the healthcare team including the patient and the family's. The PGY 3 resident should be consistently able to incorporate feedback after just one advice. PGY 3 residents should be completing quality improvement projects but showing an appreciation for the amount of quality assurance that goes into maintaining a cancer center and and infusion centers. This is 1 of the most tightly regulated industries and PGY 3 resident should learn techniques from the hematology and oncology doctors as to how this is able to be maintained at a such a highly reliable rate.



Systems Based Practice:

PGY3

- Demonstrate satisfactory knowledge of systems of care available for the care of the dying patient and his/her family, including the use of advance directives and hospice care.
- Integrate care with nurses, ancillary staff, infusion staff, social workers and faculty to contribute to efficient and effective clinic care.
- Demonstrate understanding of the circumstances under which the general internist should consult other health care professionals, including hematology-oncology subspecialists, surgeons, radiation oncologists, nutritionists, etc.

Residents are expected to also continually be learning this new system of healthcare and because of the unique attributes of the long history clinics hematology and oncology service line they should be paying close attention to how the office utilizes the Comprehensive Care clinic as a way to avoid ER admissions for their patients who are sick from post chemotherapy to 3. It would be expected that the PGY 3 resident would also show appreciation for how the long Street clinic has arranged for a direct admit process further cancer patients to their own hospital rounder for the group.

Evaluation Methods:

- Mini Cex
- End of Rotation Competency Tool
- End of Rotation Quiz
- Participation in Quality Assurance efforts