

VA Hematology/Oncology Elective

The Medical Oncology and Hematology section at the Syracuse VA Medical Center is responsible for providing specialized care to our veterans with cancer and blood disorders. It is a hybrid inpatient/outpatient experience supervised by attending physicians of the hematology/oncology division of the VA Medical Center. These physicians are supported by nurse practitioners, physician assistants, pharmacists, social workers, case managers, specially trained registered nurses and other support staff.

The section is staffed by the following physicians:

Leslie Howard, MD – Chief, Department of Hematology/Oncology, VA Medical Center
Ajeet Gajra, MD – Program Director, Division of Hematology/Oncology
Jane Hudson, MD
Frank Paolozzi, MD

I. Educational Purpose

The VA hematology/oncology elective is an elective rotation available to all internal medicine residents. The duration of the elective block is typically 4 weeks. This is a hybrid inpatient/outpatient experience with the following educational goals:

1. Provide the resident a broad experience in managing commonly encountered hematologic and malignant diseases especially in the elderly. The resident would learn when to refer a patient to the hematology/ oncology sub specialist as well as the basic work-up that needs to be initiated prior to such a referral.
2. Learn to recognize the common adverse effects of cytotoxic therapy (chemotherapy and radiation therapy) and the management thereof.
3. Develop a plan and management strategy for a patient with an advanced illness.
4. Gain experience at examination of the peripheral blood smear and at performing bone marrow aspiration and biopsy.

II. Learning Venue

The rotation comprises of two half-day hematology/oncology clinics (in addition to the resident's continuity medical clinic) and participation in the management of the inpatients that the hematology/ oncology division has been consulted on.

1. In the clinic, two to three patients are typically assigned per half day and history/physical exam, radiologic and lab studies are carefully reviewed by the precepting faculty. The major emphasis is on appropriate staging and broad treatment principles of common solid tumors (lung, prostate, colorectal and head and neck cancers) and the evaluation of common hematologic problems (e.g. anemia, thrombocytopenia, hypercoagulable workup).
2. The resident is expected to examine inpatient hematology/oncology consults and present them at daily consult rounds to the team consisting of attending staff, nurse practitioner, oncology pharmacist, social worker and hematology/oncology

fellow assigned to the VA consult rotation. The resident should gain experience in the management of commonly encountered problems in patients with cancer and blood disorders including:

- Adverse effects of cytotoxic therapy (chemotherapy and radiation therapy) e.g. neutropenic fever, chemotherapy induced diarrhea and dehydration.
- Acute complications that require urgent/emergent management e.g. spinal cord compression, chemotherapy induced anaphylaxis; severe thrombocytopenia or coagulopathy with bleeding.

3. The resident is expected to learn the principles of palliative care, mainly by observation. This is an appropriate venue to learn appropriate referral to hospice services and participate in the discussions with the patient and family that typically precede it e.g. the "bad news" discussion and the "family meeting" and the discussion regarding patient's treatment preferences and advanced directives.

4. Recommended Reading

The residents are referred to the primary texts in these areas:

- Harrison's Textbook of Medicine, sections on cancer and blood disorders
- DeVita VT Jr et al: Cancer Principles and Practices of Oncology. Philadelphia, Lippincott, Williams & Wilkins 2000.
- Abeloff: Clinical Oncology. Churchill Livingstone, 2004
- Williams Hematology, Sixth Edition. Eds: Ernest Beutler, MD, Marshall A. Lichtman, MD, Barry S. Cooler, MD and Thomas J. Kipps, MD. McGraw-Hill, Inc. 2001.
- Hoffman: Hematology: Basic Principles and Practice. Churchill Livingstone, 2001
- Additionally residents are expected to review the MKSAP for Hematology and Oncology
- Access electronic databases for the latest therapeutic recommendations: <http://www.cancer.gov>
- <http://www.uptodate.com>

The residents are directed to specific articles of recent interest as the need arises. They also have access to the many hematologic and oncologic clinical research protocols currently under investigation in the division. Residents are introduced to the Hematology/Oncology division's research trial website where they can review available protocols at www.upstate.edu/medicine/cancertrial

5. Unique Learning Opportunities

- Tumor Board: An hour-long monthly institutional conference that addresses a specific disease questions and involves medical oncologists, radiation oncologists, pathologists, radiologist and the pertinent surgical specialists.
- Hematopathology Conference: An hour long conference, held weekly, provides an interface between medical oncologists and hematopathologists. Bone marrow aspirates, biopsies and flow cytometry findings in various hematologic malignancies are discussed. Patients with complex coagulopathies and benign hematologic diseases are discussed as well.
- Oncology-Pathology Conference: Another weekly conference attended by medical oncologists and pathologists. Tissues obtained as a result of biopsies, surgical resection specimen, fine needle aspirates etc. are discussed. When pertinent results of immunostaining are also shown and briefly discussed.
- Core Teaching Conference: Held twice a month, this conference covers a wide array of core topics in hematology and oncology. Aimed at the hematology/ oncology fellows; residents in the hematology/ oncology rotations are encouraged to attend.
- Protocol conference/Thursday noon conference: This is a weekly conference, which is held at the regional oncology center in which clinical trials (including intergroup trials), and research protocols are discussed. There's also a case conference once every few months held at noon on Thursday.
- Clinical research and national randomized trials

III. Educational Content

Advance planning and management of end-of-life issues

Breast cancer (pre- and postmenopausal)

<i>Dermatologic</i>

Actinic keratosis (see also Dermatology)
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Basal cell carcinoma (see also Dermatology)
Melanoma (see also Dermatology)
Squamous cell carcinoma (see also Dermatology)
<i>Gastrointestinal</i>
Cancer of the anus
Cancer of the colon, rectum
Cancer of the esophagus
Cancer of the gallbladder, bile ducts
Cancer of the pancreas
Cancer of the stomach
Hepatoma
Metastatic disease to various sites
<i>Genitourinary</i>
Cervical dysplasia and cancer
Endometrial cancer
Kidney cancer
Ovarian cancer
Prostate cancer
Testicular cancer
Ureter, bladder cancer
<i>Head and neck</i>
Cancer of the head, neck
Cancer of the parathyroid
Cancer of the thyroid
<i>Hematologic malignancies and lymphoma</i>
Chronic lymphocytic leukemia
Hodgkin's and non-Hodgkin's lymphomas
Leukemia, acute
Multiple myeloma
Myelodysplastic syndrome
Management of pain, emesis, and nutrition
<i>Neurologic</i>
CNS lymphoma
Metastatic disease to the CNS
Primary brain tumors
Nutrition in malignancy
<i>Oncologic emergencies</i>
Depressed CNS function due to brain malignancy
Hypercalcemia
Pericardial tamponade
Renal failure due to uteral obstruction
Spinal cord compression
Tumor lysis syndrome
<i>Pulmonary</i>
Bronchial carcinoid
Cancer of the lung
Mediastinal tumors
Pleural malignancy
Superior vena cava syndrome

Hemochromatosis
Hemostasis and thrombosis
 Abnormal coagulation (abnormal prothrombin and partial thromboplastin times)
 Anticardiolipin antibody syndrome
 Anticoagulation, fibrinolysis (therapeutic)
 Disseminated intravascular coagulation
 Hypercoagulable state
 Hyperviscosity syndrome
Platelet disorders
 Platelet dysfunction
 Thrombocytopenia
 Thrombocytosis
Leukocyte disorders
 Leukemoid reaction
 Immunosuppression
 Neutropenia
Myeloproliferative disorders
 Chronic myelogenous leukemia
 Polycythemia vera
Neoplasia (see also Oncology)
 Hodgkin's and non-Hodgkin's lymphomas
 Leukemia, acute
 Myelodysplastic syndrome
 Myeloid metaplasia
Polycythemia, secondary
Red Cell Disorders
 Anemia
 Hemoglobinopathy (e.g. sickle cell)
Transfusion therapy

IV. Method of Evaluation – Evaluations are based on the six core competencies. All team members are expected to complete formal evaluations at the end of each rotation using our web based E-value evaluation software. Residents are evaluated by the attendings.

V. Rotation Specific Competency Objectives

Patient care - A unique opportunity to provide specialized care to often seriously ill patients. It is very important to be able to decide if the patient can still be managed as an outpatient or needs to be admitted for further management, being too unstable to remain an outpatient.

Medical Knowledge - This is a valuable opportunity for residents to review classic literature in the management of common hematologic and malignant conditions.

Professionalism - Underscores the values of humanism in medicine and need for respect and compassion towards patients and families.

Interpersonal and communication skills - A great opportunity to establish effective therapeutic relationships with patients and families in an environment where concern and involvement are typically high; An opportunity to build on listening and non-verbal skills; Opportunity to gain experience with the "bad news discussion" through role modeling by faculty.

Practice-based learning – Hematology/oncology is one of the fastest changing specialties and challenges residents to be proficient in literature searches and evidence based medicine. In addition residents will participate in the care of patients on research trials. Residents have the opportunity to familiarize themselves with the use of web-based resources to obtain the latest information regarding treatment and available clinical trials since the field is constantly evolving.

System based practice – Residents are expected to work for safe and appropriate follow up in this patient population that often has multiple different medical/surgical disciplines involved in their care. There is also increased collaboration with nursing staff especially in the areas of chronic pain management, coordination of care and close observation of treatment side effects.

Reviewed 11/08 by Jad Joseph Wakim, MD