Kaiser Permanente Sunset Medical Center
Hematology/Oncology Curriculum
TARGET: PGY 5-6

A. EDUCATIONAL GOALS AND OVERVIEW
The purpose of this rotation is to train residents to competently care for patients with a broad range of Hematologic and Oncologic conditions that require specialized care in a busy efficient health maintenance organization. The rotation is designed to increase reasoning ability, therapeutic acumen, objective knowledge, overall patient care skills, health delivery system knowledge, and team management skills.

B. ROTATION DESCRIPTION AND STRUCTURE
The training site for this rotation is Kaiser Permanente - Sunset. The facility is a large modern HMO with inpatient services, full subspecialty availability, outpatient clinics, and a dedicated hematology/oncology infusion center. The electronic medical record is state of the art. Clinical trials are available in a broad array of malignancies. Multidisciplinary clinics are available for the treatment of several malignancies. Second and third year fellows will rotate for 2-3 months at a time seeing inpatient consultations as well as outpatient consultations and follow-up patients. Duty hours are designed to be compliant with the RRC requirements.

Attending physicians supervise all housestaff. The fellow will be available from 8 AM to 5 PM Monday through Friday, except on Wednesday when attending their continuity clinic at Olive View. Fellows will cover 1 weekend every 3 weeks.

An overview of fellow responsibilities includes:
- Inpatient and emergent outpatient hematology/oncology consult requests from all services in the hospital,
- Participation in the multidisciplinary management of patients with hematologic and oncologic problems in both the inpatient and outpatient settings,
- Attendance and participation at attending rounds,
- Attendance at teaching conferences and site-specific tumor boards,
- Hematology/oncology clinics and all-day Olive View Wednesday Continuity clinic.
- Presentation of all cases to attending staff,
- Appropriate and accurate communication of consult service recommendations to other members of the patient care teams.

C. OBJECTIVES (by RRC competency and PGY level)
At the completion of this rotation (and with additional experience and study throughout the training program) the resident will be developing competency in the items outlined in the overall fellowship curriculum.

1. Medical Knowledge
Note: The Medical Knowledge objectives of this curriculum are comprehensive. It is understood that residents will focus their study on the medical conditions of the patients they are exposed to during the rotation. Residents should also enhance their medical knowledge in the other areas listed below. Exposure to additional patients and conditions, supplemented by individual study, should take place on other rotations throughout the fellowship. Demonstrate an appropriate knowledge of the basic
and clinical sciences, understand complex relationships and mechanisms of disease, and recommend appropriate diagnostic and treatment options for the following medical conditions (PGY 4 - basic knowledge; PGY 5/6 - advancing knowledge; by the end of the 3rd year of fellowship, a resident should be able to independently implement an effective diagnostic and treatment plan). Fellows should:

- Be able to diagnose, stage, and treat patients with various hematologic malignancies and solid tumors.
- Be familiar with diagnostic work-up and management of various non-malignant hematologic disorders including anemias, hemoglobinopathies, disorders of white blood cells, disorders of platelets, and disorders of hemostasis and thrombosis.
- Be familiar with clinical trial enrollment and management of study patients.
- Be familiar with management of cardiothoracic surgery hematologic complications.
- Be familiar with principles and indications for local management of both primary and metastatic liver malignancies.
- Be familiar with principles and indications for surgical management of various malignancies.
- Be familiar with various single agent and combination chemotherapeutic drugs, biologic and immunologic agents, growth factors in their indications, toxicity, drug interactions, and mechanisms of action.
- Develop the knowledge and skills to manage Hematologic and Oncologic disorders as outpatients.
- Be familiar with and manage various toxicities of chemotherapy, radiation therapy and immunosuppression.
- Be familiar with indications for genetic risk assessment and risk modifying options.

2. Patient Care: Fellows should:

- Develop procedural skills including bone marrow biopsy/aspirate, intrathecal administration of chemotherapy, care of vascular access devices, etc. including appropriate documentation. (PGY 4-6)
- Develop procedural skills with the assistance of ultrasound guidance. (PGY 5,6)
- Complete an interview, physical exam and patient data review which is accurate, effective, and appropriate for the specific patient. (PGY 4-6)
- Utilize appropriate lab and radiologic studies for evaluation of various disorders. (PGY 4-6)
- Create assessments and plans including therapeutic decisions with advancing skills, towards independence while progressing through the fellowship. (PGY 4-6)
- Demonstrate sound judgment, insight, and prioritization skills in making reasonable clinical choices based on patient preferences, up-to-date scientific evidence, and clinical judgment.
- Perform effective hematology/oncology consultations. (PGY 4 -6, with increasing independence)
- Effectively work in a multidisciplinary environment to optimize patient evaluation and care including medicine, surgery, OB/Gyn, radiation therapy, social services, home health agencies, Hospice, community physicians and subspecialists. (PGY 4-6)
- Safely and proficiently perform medical procedures that minimize patients’ discomfort and maintains sterile precautions. (PGY 4-6)
- Be familiar with the indications and potential risks of transfusion of various blood products and apheresis procedures. (PGY 4-6)
• Be familiar with the management and care of indwelling venous access catheters. (PGY 4-6)
• Be familiar with cancer prevention and screening, including genetic testing and counseling in patients with hereditary cancers. (PGY 4 - basic knowledge; PGY 5/6 - advancing knowledge)
• Be familiar with acute and chronic pain management, anti-emetic therapy, and nutritional support in cancer patients. (PGY 4-6)

3. Interpersonal and Communication Skills: Fellows should:
• Create and sustain therapeutic and ethically sound relationships with patients. (PGY 4-6)
• Communicate effectively with all members of the patient care team verbally and in written notes and orders. (PGY 4-6)
• Communicate effectively with the patients and their families regarding disease education, diagnosis, treatment options, goals of therapy, end of life issues, and supportive care. (PGY 4-6)
• Learn to properly document the medical record including writing adequate history/physical, a clear impression and diagnostic/treatment plan including the goals of therapy, disease parameters being followed for response, patient/family education/consent, writing clear chemotherapy orders including dosing, route of administration, premedications, toxicity monitoring and treatment; and maintaining flowsheets. (PGY 4-6)
• Work effectively with others as a leader/member of the health care team. (PGY 4-6)
• Be familiar with end of life care of patients. (PGY 4-6)
• Be able to recognize and manage patients with hematologic and oncologic emergencies including superior vena cava syndrome, tumor lysis syndrome, leukostasis, hyperviscosity syndrome, and others. (PGY 4-6)
• Participate in conducting the clinical trials, i.e., evaluate and screen patients for clinical trials, enter patients in clinical trials, treat patients according to the protocol, and gather appropriate data. (PGY 4-6)

4. Professionalism:
• Demonstrate respect, compassion, integrity, and honesty. (PGY 4-6)
• Demonstrate responsible and ethical behavior, including acknowledgement of errors, patient confidentiality, and proper use of informed consent. (PGY 4-6)
• Consider the needs of professional colleagues, patients and their families, hospital/clinic/STC staff, including being sensitive to different cultural/socioeconomic backgrounds, levels of medical sophistication, and avoiding judgmental behaviors. (PGY 4-6)
• Demonstrate accountability to patients, colleagues, and ancillary staff. (PGY 4-6)
• Communicating both verbally and in written documents and orders in a clear and accurate manner to all involved in any patients’ care. (PGY 4-6)

5. Practice based Learning and Improvement:
• Demonstrate a commitment to self-assessment and improvement by listening to and incorporating feedback. (PGY 4-6)
• Effectively use information technology (e.g., on-line or other resources) and an EBM approach in providing patient care. (PGY 4-6)
• Research and discusses relevant literature with the team (PGY 4-6) and demonstrate effective teaching, management and leadership skills. (PGY 4-6)
6. Systems-Based Practice:
   - Effectively access hospital resources, understand and follow Utilization Review requirements, and utilize appropriate levels of care in managing hospitalized and outpatient hematology/oncology patients (PGY 4 - basic understanding; PGY 5/6 - advancing knowledge)
   - Appropriately use inpatient clinical pathways and other practice guidelines as required (PGY 4-6)
   - Effectively use discharge planning (e.g. NPs, CCRs, early discharge planning) and follow-up care (e.g. ancillary clinics/services) processes (PGY 4-6)
   - Complete charting requirements (date/time/sign all orders, write legibly, no unapproved abbreviations, daily notes edited and updated appropriately, deficiencies timely completed) (PGY 4-6)
   - Work effectively with consultants and other professional members of the health care team (e.g., NP, RN, PT, MSW) (PGY 4-6)

D. TEACHING METHODS

Fellows are supervised and taught by full-time faculty and clinical attending physicians in all aspects of their clinical activity. All patient cases are discussed in formal attending rounds on all new consults and follow-ups, and recommendations are reviewed with the attending physicians. Attendings will be responsible for teaching housestaff during the rotation. Attending rounds will cover didactics in addition to patient care issues, and will include bedside teaching. Learning is patient-based, and housestaff are expected to supplement their learning with additional reading on the diseases encountered. Simulation will be utilized in developing procedure skills with ultrasound guidance.

E. RESIDENT RESPONSIBILITIES

   - Provide inpatient and outpatient Hematology/Oncology consultations to all patients on non Hematology/Oncology services.
   - Communicate all the recommendations for diagnostic work-up and management of the consult patients with the primary care team.
   - Review all consult cases with the attending physicians for diagnostic work-up and treatment recommendations.
   - Participate in Attending Rounds and lead case discussions.
   - Supervise and educate medical housestaff and medical students on consult service as well as primary care team.
   - Provide daily follow up on all consult patients along with the housestaff/medical students.
   - Review all pathology, imaging studies, and lab results with house staff/medical students.
   - Review pertinent literature on all cases and educate housestaff/medical students.
   - Write initial consult note and daily follow-up notes with the housestaff/medical students.
   - Enter patients on clinical trials when appropriate.
   - Perform and/or supervise necessary procedures including bone marrow biopsy, paracentesis, thoracentesis, lumbar puncture, and intrathecal chemotherapy.
   - Give didactic lectures to the housestaff/medical students.
   - Participate in General Oncology Tumor Boards.
   - Attend out-patient Hem/Onc continuity clinic.
F. EDUCATIONAL RESOURCES

- Up-To-Date
- Multiple Hematology/Oncology textbooks
- On-line EBM resources are available on all computers and in the Library
- Simulation programs

G. MONITORING AND EVALUATION

- Attending physicians will complete a written evaluation of housestaff on the above objectives and core competencies at the end of the rotation. In addition, residents (PGY 1-3) will evaluate fellows (PGY 5/6) teaching abilities, and medical students will evaluate the teaching ability of all house officers.
- Attending Physicians will give verbal feedback on the resident's performance.
- A supervising physician will complete a computerized evaluation form to document satisfactory competency.
- Yearly in-service examinations will evaluate medical knowledge.

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