

Pediatric Hematology/Oncology

1. Rotation Name

Peds/Onc at Michigan State University

2. Educational Purpose of the Rotation

It is expected that residents rotating through the Hematology/Oncology experience will successfully master specific skills and learn to appropriately assess, diagnose and manage disorders in children with prevalent Hematologic/Oncologic conditions.

To have resident learn about some of the behavioral, emotional, cultural, and social issues involved for families with chronically or deathly ill children.

To educate resident about the importance of participation in national trials (i.e., Children's Cancer Group for children with cancer and National Hemophilia Foundation for children with hemophilia).

3. Staffing of the Rotation

Roshni Kulkarni, MD, Renuka Gera, MD, Ajovi B. Scott-Emuakpor, MD, PhD.

4. Resources

The Pediatric Hematology/Oncology Out-Patient Clinic is located at the Sparrow Professional Building and the Hemophilia Clinic is located at the Internal Medicine Module, A225 Clinical Center.

5. Patients

Residents are exposed to a large variety of children with hematologic/oncologic conditions

6. Responsibilities

Fellows who participate in this rotation are expected to attend Hematology/Oncology clinics. Attend Grand Rounds, Sub-Specialty Rounds, General Pediatric Conferences, Pediatric Tumor Board and Hemophilia Clinic.

7. Evaluation

At the completion of the rotation:

1. Faculty members will summarize and accurately describe the fellow performance on the provided evaluation form. The faculty member will discuss the evaluation with the fellow; and return to the Program Director.
2. The fellow will summarize and accurately describe the faculty performance on the provided evaluation form and return it to the program office.

8. Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
8:00-12:00 HEM/ONC Clinic SPB – Suite 145	HEM/ONC Rounds HEM/ONC Consults Reading	HEM/ONC Rounds HEM/ONC Consults Pediatric Pathology Session (to be arranged) twice a month	8:00-9:00 Grand Rounds 9:30-10:30 Sub-Specialty Rounds 11:00-12:00 HEM/ONC Rounds	HEM/ONC Rounds HEM/ONC Consults Hemophilia Clinic (once a month)
NOON CONFERENCE	NOON CONFERENCE	NOON CONFERENCE		NOON CONFERENCE
HEM/ONC Rounds HEM/ONC Consults Reading	HEM/ONC Rounds HEM/ONC Consults Reading	1:00-5:00 HEM/ONC Clinic SPB – Suite 145	12:00-2:00 HEM/ONC pre-clinic SPB – Suite 145 2:00-5:00 HEM/ONC Rounds HEM/ONC Consults	HEM/ONC Rounds HEM/ONC Consults Reading

9. Pediatric Hematology/Oncology - Rotation Competency Objectives

1. Patient Care

- a) Through examination of patient looking for early signs of recurrence of malignancy as well as drug toxicities.
- b) Give intrathecal medications in an appropriate manner.
- c) Perform bone marrow aspiration and biopsy
- d) Evaluate peripheral blood smear and bone marrow aspirate for anemia and malignancy
- e) Observe blood draw from central venous catheter (port for Broviac)
- f) Accurately calculate dosages of clotting factor in patients with hemophilia and dosage of DDAVP for von Willebrands patients.
- g) Learn indications and care of indwelling venous catheters in patients with cancer.
- h) By the conclusion of the rotation, the Hematology/Oncology Resident will learn to appropriate assess, diagnose and manage disorders in children with Hematologic/Oncologic conditions.
- i) By the conclusion of the rotation, the Hematology/Oncology Resident will be able to perform the above skills and be able to independently generate an appropriate management plan.

2. Medical Knowledge

By the end of the rotation, the resident will be able to:

- a). Describe the diagnostic approach and treatment for the patient suspected of having the following:
 - a) Anemia
 - b) sickle cell anemia
 - c) bbleeding disorders
 - d) ALL and lymphoreticular malignancies
 - e) ITP
 - f) Common solid tumors – neuroblastoma, rhabdomyosarcoma, bone tumors, brain tumors, Wilms tumor, etc.
 - b). List the side effects and toxicities of the most common chemotherapeutic agents.
3. Know the care necessary for sickle cell patients
 4. Describe the techniques of chemotherapy infusion (helpful if you need to administer part of a patient's chemotherapy treatment in your office)
 5. Be familiar with indications, side effects of blood and blood product transfusions.
 6. Know how to read and interpret and follow national/international protocols (i.e., CCG and national hemophilia protocols).

3. Interpersonal and Communication Skill
 - a) Residents will learn about some of the behavioral, emotional, cultural, and social issues involved for families with chronically or deathly ill children.
4. Professionalism
 - a) Throughout the rotation, residents are expected to exhibit reliability in their clinical duties, as well as integrity and respect in their interactions with patients and colleagues.
 - b) Residents will be able to demonstrate appropriate consultative principles of communication and responsiveness to professional consultative requests.
5. Practice Based Learning and Improvement

Required reading: Hematology chapter from Nelson's text book of Pediatrics

Hematology

Oski and Nathan. Hematologic Problems in Newborn (current edition)

Oski and Nathan. Hematologic Diseases in Infancy and Childhood (current edition)

Clinics in Perinatology (appropriate issues)

Oncology

Pizzo's Pediatric Oncology (current edition)

Journals

- a. Pediatric Clinics of North America
- b. Hematology/Oncology Clinics of North America
- c. Journal of Pediatric Hematology/Oncology
- d. Journal of Clinical Oncology

Watch the video - *My Friend has Leukemia*

Read the patient hand-out - *What is it called again?* - on ITP

- a) Rotating residents will demonstrate self-initiative in the use of information technology available via the MSU electronic library to access and retrieve materials for self-education via computer terminals located in the resident offices and throughout the clinic.

- b) Rotating residents will be expected to show progressive learning throughout the rotation, with emphasis on learning from any cognitive or procedural errors. They are also expected to facilitate any quality improvement initiatives in place at MSU's pediatric hematology/oncology clinic.

6. Systems Based Practice

- a) All residents will demonstrate conscientious awareness of the impact of their professional activities at the MSU Ped/Onc office practice site, and will conscientiously avoid inappropriate use of the practice resources.
- b) Residents must demonstrate understanding of cost-effectiveness of care incorporating cost-effectiveness into their development of diagnosis and treatment plans.