GOALS AND OBJECTIVES FOR HEMATOLOGY ROTATION

Introduction:
This two-month rotation consists of rotations involving a mixture of inpatient hematology unit and inpatient consult service. In addition, residents will rotate in weekly hematology outpatient clinic. The resident is expected to make an oral presentation on a clinical case and /or a relevant hematology topic during weekly morning report on at least one occasion during their rotation.

For hematology rotation, residents will be assigned to Mubarak Al-Kabeer Hospital, Al-Amiri Hospital, Al-Adan Hospital, Jahra Hospital or Farwanieyha Hospital.

Rotation Structure and Schedule:
On the inpatient hematology unit, residents are expected to round on a minimum of 2-3 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with hematological disease, including sickle cell crisis, severe thrombocytopenia resulting from ITP, TTP, or treatment-related; acute leukemia for induction or consolidation; and patients with congenital bleeding diatheses. The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the hematology team lead by the consultant hematologist. It is expected that the resident completes their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees an average of 1-2 new cases per day, and follow up on minimum of 1-2 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the rest of hematology team. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of common hematologic diagnostic studies and the significance of their results, including identify normal findings and common abnormalities on peripheral blood smears.

In the outpatient hematology clinic, the resident is expected to work with consultant hematologist on a one to one basis evaluating and managing patients presenting with common hematological problems and diseases including: Erythrocyte disorders (Production problems; Hemolytic problems); Platelet disorders; Bleeding disorders (Inherited and acquired); Thrombotic disorders (Antiphospholipid antibody syndrome; Thrombotic microangiopathic anemia syndrome; Thrombophilia (inherited and acquired); Antithrombotic and prophylactic therapy).

Sample Daily Schedule on hematology inpatient service & consult service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Resident follows up on old patients and work up new consults.

9:00 am to 9:30 am: Team meets in lab to go over normal findings and common abnormalities on peripheral blood smears
9:30 am to 11:00 am: Team gather and round on all new and old patients.

11:00 am – 12:30 pm: Resident follows up on old consults and work up new consults
12:30 pm -2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Outpatient Hematology Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory hematology clinic along with supervising attending hematologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
The Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

8. **Medical Expert:**

- **R1-R2 residents:**

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

29) **The resident will demonstrate competency to perform and accurate history and physical and present pertinent positives and negatives relevant to hematological diagnoses; synthesize these data and arrive at an initial plan for diagnosis and treatment**
30) **The resident demonstrates understanding of the basic principles of diagnosis (e.g., the importance of pathological diagnosis) and therapy for malignant diseases and blood disorders**
31) **The resident will demonstrate understanding of the major anticoagulants and the principles of their control.**
32) **The resident demonstrates understanding of the diagnosis and management of thrombophilia and venous thromboembolic disease.**
33) **The resident demonstrates understanding of the principles of blood component therapy, including indications for transfusion of blood components. management of neutropenia and immunosuppression**
34) **The resident demonstrates understanding of indication and interpretation of diagnostic studies, including peripheral blood smears, bone marrows, and biopsy specimens.**
35) **The resident demonstrates understanding and knowledge in management of of neutropenia and immunosuppression.**

- **R3-R4 residents:**

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

24) **Meet competency stated for R1-R2 residents.**
25) **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, petechiae, 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.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

11) **Meet competency stated for R3-R4 residents.**
12) **Demonstrate proficiency in management of hematological emergencies including Thrombotic thrombocytopenic purpura, transfusion complications, febrile neutropenia in high risk patients, fever in splenic patient, sickle cell crisis, Hyperleukocytosis and Leukostasis, disseminated intravascular coagulation, Autoimmune hemolytic anemia induced by drugs, Hypercalcemia associated with hematological malignancy, and superior vena cava syndrome (SVCS).**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

9) **Develops a good working relationship with other physicians, health care professionals, and patients (resident explains plans to patients and their families, and put them at ease).**
7) **Presents in a well-thought out manner. The presentations are concise, accurate, and provide adequate information for initial diagnosis and treatment**
8) **Maintains clear and accurate medical records**

9. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

8) **Work effectively with, and enhance the interdisciplinary team involved in the delivery of medical care.**
9) **Work effectively in an interdisciplinary team, showing an understanding and respecting the roles of other health disciplines (social workers, pharmacists, nursing staff, nutritionists, case managers).**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

24) **Document history and physical/consult on chart within 24 hours of admission or consultation and write daily progress note.**
25) **Follow through promptly with scholarly assignments.**
26) **Interact respectfully with all healthcare team members**
27) Maintain patient confidentiality.
28) **critically appraising medical literature, and apply evidence to the care of patients.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

14) Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and decision making.
15) Demonstrate knowledge of systems of care available for dying patients and their families including the use of advance directives and hospice care.
16) Describe indications for the use of blood products, cite issues related to blood bank and community blood supply.
17) Demonstrate understanding of the circumstances under which the general internist should consult others in the care of patients with hematological disorders.
18) Serve as a consultant to other services with proper faculty input.

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

7) **Critically appraise medical literature as it pertains to managing patients with hematological disorders.**
8) **Demonstrate use of the literature in management of patients with hematological diseases.**
9) **Facilitate the learning of other members of the healthcare team through presentations at Hematology Conference and at the bedside.**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

15) **Demonstrates respect, compassion, and integrity to patients, families, and other health professionals**
16) Recognize the scope of his/her abilities and ask for supervision and assistance as appropriate.
17) Respond promptly to phone calls and pagers.
18) Truthfully document and report clinical information
19) **Demonstrate proper professional attitudes with respect to attendance and punctuality.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.