

Proposal for Pediatric Hematology Elective for 4th year Medical Students
Department of Pediatrics
Boston University School of Medicine

Course Director: Philippa Sprinz, MD MSc

BRIEF SUMMARY

This elective will expose one medical student per rotation to many of the hematologic disorders experienced by pediatric patients including, but not limited to sickle cell disease, G6PD deficiency, von Willebrand disease and hematologic disorders of the newborn.

The service consists of approximately 4 outpatient clinical sessions. The inpatient service consists of consultations; medical students are encouraged to perform the initial consult and review the literature to answer important clinical questions regarding these patients.

If desired, students may have the opportunity for exposure to Pediatric Oncology with up to two half-day sessions through the Floating Hospital for Children at Tufts and Dana Farber Cancer Institute.

Students will be evaluated on the basis of their participation in clinic and rounds. If scheduling permits the MSIV may give a 20-minute presentation to students on the Pediatrics rotation. This elective is well suited for students interested in general pediatrics or hematology.

DESCRIPTION OF ELECTIVE

The Pediatric Hematology Elective is an opportunity for 4th year medical students to gain exposure to, recognize and manage hematologic disorders in patients from birth to the age of 22 years old in both the inpatient and outpatient setting.

Students will participate in daily rounds, write progress notes for admitted patients and present new consultations. They will be responsible for following patients on the consult service throughout their admission, communicating with the Pediatrics floor team and finding related journal articles to augment their understanding of each patient's hematologic disorder; presenting these journal articles both during rounds and in their daily progress notes. Students will also have the opportunity to see patients in the outpatient clinic, to recognize the long-term management of patients with sickle cell/hemoglobinopathies including prophylactic therapies and sickle cell pain plans. During this rotation students will be exposed to a wide spectrum of other hematologic disorders which may include: anemia, thalassemias, spherocytosis, G6PD deficiency, ITP, hemophilia,

von Willebrand disease, deep vein thrombosis, pulmonary embolism, anticoagulation therapy and white cell disorders.

If desired, students may have the opportunity for exposure to Pediatric Oncology - up to two half day sessions as can be arranged - through the Floating Hospital for Children at Tufts and/or Dana Farber Cancer Institute.

Students will attend Pediatric Grand Rounds and Case of the Week and may also attend Morning Report and Noon Conference with both Pediatric interns and residents.

Students will be evaluated by a faculty observation checklist (please see the Evaluation section below). This elective is well suited for students interested in general pediatrics or hematology. It is expected at the conclusion of this elective that the student will have an appreciation of the acute and chronic management of children and adolescents with hematologic disorders.

Administrative Contact: Philippa Sprinz, MD MSc
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Please email to Dr. Sprinz at the above email address the week prior to the start of the rotation to confirm that you are to report on the first day of the elective to: Yawkey Ambulatory Care Center Room 4S-01 at 9:00 am.

GOAL

The purpose of the Pediatric Hematology elective is for the BUSM student to gain exposure and experience in the evaluation and management of patients with acute or chronic hematologic disorders.

OBJECTIVES

By the end of the Pediatric Hematology elective, the BUSM student will be able to:

- Describe the pathophysiology of sickle cell disease (SCD), routine screening required, prophylactic therapy and medical management of SCD. (U, R)
- Explain the inpatient pain management algorithm for patients presenting with sickle cell pain episodes. (U, R)
- Describe the psychosocial aspects of Sickle Cell Disease and the role of our Pediatric Hematology Social Worker. (B, C, A, S)

- Describe the clinical manifestations of Sickle Cell Anemia including: aplastic episodes, splenic or hepatic sequestration, pain episodes, cerebral vascular accidents and Acute Chest Syndrome. (U, R)
- Explain the clinical signs of and risk factors for Acute Chest Syndrome (ACS), precautions taken to decrease the risk of ACS and how it is treated. (U, R)
- Describe the difference between a straight and an exchange transfusion. (U)
- Explain the differential diagnoses of common anemias defined by mean corpuscular volume. (U, R)
- Describe the coagulation cascade and pathways commonly affected in Hemophilia A, Hemophilia B and von Willebrand disease and how PT, PTT and bleeding time are affected in each. (U, R)
- List the causes of thrombocytopenia in a neonate, infant and child. (U, R)
- Discuss the initial assessment, work-up and treatment of a pediatric patient with a deep vein thrombosis or pulmonary embolism. (U, R)
- Demonstrate both during rounds and through daily progress notes, an organized approach to clinical problem solving including a differential diagnosis and a systematic approach to the use of diagnostic testing. (C, A, E)
- Communicate with the Pediatrics floor team regarding consults and recommendations for patient care. (B, C, A)
- Participate in family meetings for admitted Pediatric Hematology patients. (B, C, A, S)

FACULTY

Philippa Sprinz, MD MSc, Division of Pediatric Hematology, BUSM

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Amy Sobota MD MPH, Division of Pediatric Hematology, BUSM

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CURRICULUM

The curriculum includes:

- Twice daily bedside rounds on the Pediatrics floor (Menino) and/or the PICU, NICU
 - Participation in patient evaluations, write-ups and patient presentations
 - Almost daily clinic in Pediatric Hematology with the opportunity to see patients independently, present an assessment and plan and write clinic notes
 - Daily lectures: Morning Report (Monday, Tuesday and Wednesday) by Pediatric Chief Residents and Noon Conference (Monday through Thursday) by pediatric faculty or Chief Residents
 - Thursday (8-9am) Pediatrics Department Grand Rounds
 - Friday (8-9am) Pediatrics Department Case of the Week
- With the exception of academic summer break when there is Thursday Case of the Week and no Friday meeting

EVALUATION

Towards the middle of the rotation, the student will have a mid-clerkship evaluation with Dr. Philippa Sprinz or Dr. Amy Sobata. Towards the end of the rotation, the student will have a formal evaluation with Drs. Sprinz or Sobata of his/her achievement of the above stated goals by means of a faculty observation checklist (attached separately). This checklist will provide the basis for filling out and submitting the standardized BUSM IV student evaluation (used for 4th year sub-internships and electives) to be completed by Drs. Sprinz or Sobata and forwarded to the Office of the Registrar.

NUMBER OF STUDENTS

Two BU 4th year medical students

LENGTH OF ROTATION

1 month

AVAILABLE BLOCKS

12 (Block 9 through Block 20)