

## **Transfusion Medicine/Blood Banking**

### **REQUIRED rotation**

*This is a onetime rotation and is not planned by PGY level.*

### **Objective:**

The objective of this rotation is to teach fellows the clinical and laboratory aspects of Transfusion Medicine and Blood Banking as it impacts hematology/oncology.

### **Goals:**

The goal of this rotation is to teach fellows blood ordering practices, the difference of type and screen and type and cross matches and selection of appropriate products for transfusion.

Fellows will also learn to perform, watch type and screen red cell antibodies and will learn the significance of ABO, Rh and other blood group antigen systems briefly so as to understand the significance of red cell antibodies in transfusion practices.

Fellows will learn the different types of Blood components, their indications and contraindications and component modification. e.g. Irradiated and washed products, and special product request and transfusions e.g. granulocyte transfusion, CMV negative products etc.

Fellows will learn and become proficient in the laboratory aspects of autoimmune hemolytic anemia, coagulopathies and bleeding disorders in relation to massive transfusions and the laboratory aspects and management of platelet refractoriness.

Fellows will learn some aspects of coagulation factor replacement for factor deficiencies and inhibitors.

### **Activities:**

Fellows will rotate in the Blood Bank at UMC and learn to perform, observe and interpret standard blood bank procedures such as ABO Rh typing, Antibody Screen, Antibody Identification and Direct Antiglobulin Test (DAT). Fellows will also watch platelet cross matching for platelet refractoriness.

Fellows will attend and present a few didactic lectures of about 40 minutes on Blood Bank related topics as they apply to hematology/oncology like blood group antigens, Blood Component therapy, Transfusion reactions, Autoimmune hemolytic anemia, Platelet immunology and HLA as it applies to transfusion medicine.

Fellows will be encouraged to attend morning call rounds at 9AM in the clinical lab library scheduled every day which have a special focus on transfusion medicine.

Fellows will contact the Resident and other Blood Bank fellows on rotation, attend daily sign out of immuno-hematology reports, help in Blood Bank consultation and follow up Blood Bank related cases as schedules permit.

Meeting schedule is as follows but is subject to change:

Monday to Friday 8.30 AM in Blood Bank with resident and fellows and will continue to morning rounds at 9 AM in clinical lab library and will plan for the day's activity including didactic lecture with the attending on the rotation.

**Projects:**

Fellows will be encouraged to do a project or a case study of their interest.

Fellows will present interesting transfusion cases at Friday noon Hematopathology conference.

**Reading Assignments:**

See reference list.

**Competencies to be addressed:**

Knowledge- fellows will learn indications and proper product utilization and adverse reactions of component therapy

Technical skills - Fellows will learn standard Blood Bank procedures mentioned above

Professionalism – fellows will learn about communication and interpretations of results with regard to ordering physicians

**Evaluation:**

Global attending evaluation

Evaluation of formal case presentation at hematopathology conference

Semi-annual examination will have questions related to information obtained during this rotation.