

Program Goals and Objectives

The goal of the Blood Bank/Transfusion Medicine fellowship is to provide the physician-in-training with practical knowledge of laboratory methods, clinical applications, and therapeutic options as they relate to Transfusion Medicine. This training is designed to give the fellow a foundation in the skills necessary to direct a hospital transfusion service, collection center, apheresis service, and cellular therapy laboratory.

The Accreditation Council for Graduate Medical Education has defined six areas of competency in which all fellows are to be trained and evaluated, and this competency model has been adopted at all levels of medical education, from undergraduate through licensing and credentialing. In brief, these areas are:

Patient Care (PC): how one applies your medical knowledge in caring for patients

Medical Knowledge (MK): what one knows

Practice-based Learning and Improvement (PBLI): how one continually works to improve one's ability to provide patient care

Interpersonal and Communication Skills (IC): how one interacts with others

Professionalism (PROF): how one presents him (her) self

Systems-based Practice Learning (SBP): how one works within the healthcare system

Learning and Working Environment (6-2019)

Here are the specifics pertaining fellowship program:

Patient Care:

- Correctly classify transfusion reactions and give appropriate treatment recommendations.
- Choose appropriate cross-matching methods for various patients (e.g., electronic, immediate spin, and antiglobulin).
- Recognize and appropriately refer serological evaluations that are beyond the scope of a hospital-based transfusion service/blood bank.
- Correctly choose (or recommend) the appropriate blood product for patients with special needs.
- Triage and screen requests for blood components appropriately during inventory shortages.
- Demonstrate the ability to perform blood utilization reviews.
- Work with collection nurses to review whole blood and apheresis donor reactions.
- Write physician orders for peripheral blood hematopoietic stem cell collections and therapeutic apheresis procedures.
- Appropriately manage reactions that occur during peripheral blood hematopoietic stem cell

collections or therapeutic apheresis procedures.

Medical Knowledge:

- Acquire a fund of knowledge necessary to function as an independent practitioner in the field of transfusion medicine.
- Demonstrate understanding of and ability to interpret major regulations and guidelines that are applicable to collection, processing, storage, and release of blood and other cellular therapeutic products.

Practice-Based Learning and Improvement:

- Demonstrate the ability to develop new policies and procedures or change existing policies and procedures based on a review of the literature or issuance of new guidelines by regulatory agencies.

Interpersonal and Communication Skills:

- Demonstrate the ability to discuss the process of therapeutic apheresis and transfusion reactions with patients, and/or family members where appropriate; answer their questions; and obtain informed consent. Fellows should show compassion and patience to patients and their families.
- Develop or improve communication skills in the course of carrying out their clinical responsibilities as first-line consultants for the transfusion service, by communicating with other physicians in multiple specialty areas, with technical staff members in the transfusion service, with apheresis nurses, and with other caregivers.
- Learn how to communicate in a concise, yet clear way
- Learn how to organize and present complex information

Professionalism:

- Demonstrate compassion: be understanding and respectful of patients, their families, and the staff and physicians caring for them.
- Interact with others without discriminating on the basis of religious, ethnic, sexual, or educational differences.
- Demonstrate positive work habits, including punctuality, dependability, and professional appearance.
- Demonstrate principles of confidentiality with all information transmitted both during and outside of a patient encounter.
- Demonstrate knowledge of regulatory issues pertaining to the use of human subjects in research.

Systems-Based Practice:

- Gain an appreciation regarding the impact of transfusion medicine on the totality of health care; the role that transfusion services play in patient care in a wide range of medical specialties.
- Gain a perspective on how the local provision of transfusion services depends on regional and even national cooperative efforts to obtain and assure the availability of an adequate blood supply.

Learning and Working Environment (6-2019)

- The fellow must actively participate in patient safety systems and contribute to a culture of safety.
 - Programs must provide formal educational activities that promote patient safety related goals, tools and techniques.
- Fellows must know their responsibilities in reporting patient safety events at the clinical site. They must know how to report patient safety events at the clinical site.
 - Fellows must be provided with summary information of their institutions's patient safety reports.
 - Fellows must participate as team members in real and/or simulated interprofessional clinical patient safety activities such as RCA or other activities that require analysis, as well as formulation and implementation of actions.
 - All fellows must receive training in how to disclose adverse events to patients and families.
 - Fellows should have the opportunity to participate in the disclosure of patient safety events, real or simulated.
 - Fellows must receive training and experience in QI processes, including an understanding of health care disparities.
 - Fellows and faculty must receive data on quality metrics and benchmarks related to their patient populations.
 - Fellows must have the opportunity to participate in QI activities; this should include activities aimed at reducing health care disparities.

The goals and objectives for each of the fellow rotations are based on these competency areas. While each rotation has some specific goals and objectives, there are a large number of competencies that are COMMON TO ALL rotations. These are listed below.

Upon completion, the Blood Bank/Transfusion Medicine fellow will be able to:

- Discuss the theory and relate the clinical application of all tests and procedures performed in the Blood Bank Laboratory, Apheresis Service, and Stem Cell Laboratory (MK, PBLI).
- Provide expert consultative service to clinicians including but not limited to: interpretation of test results, selection of blood components, and transfusion therapy. (MK, PBLI, SBP, ICS, PROF, PC)
- Evaluate and classify adverse reactions to blood transfusions and peripheral blood stem cell infusions (MK, PBLI, ICS, PROF, PC)
- Review and determine appropriate use of uncrossmatched blood and massive transfusion protocols. (MK, PBLI, SBP, PC)
- Participate in the management of peripheral blood stem cell harvests from both allogeneic and autologous donors, including assessment of adverse donor reactions. (MK, PBLI, ICS, PROF, PC)
- Relate the theory and applications of therapeutic apheresis. (MK, PBLI, PC)
- Compare and contrast allogeneic and autologous blood donation processes. (MK, PBLI, PC)
- Increase clinical experience through interactions with patients and clinical staff. (PBLI, ICS, PROF, PC)

Gain administrative experience by interacting with the Medical Director and the Blood Bank and Apheresis staff. (PBLI, SBP, ICS, PROF)

Rotation-Specific Goals and Objectives

Additional goals and objectives specific to particular rotations are provided to the fellow during orientation to the fellowship. Examples of these objectives can be provided upon request during the interview process.