

1. Rotation Name

BONE MARROW TRANSPLANTATION ROTATION

2. Educational Purpose of the Rotation

The overall goal of this rotation is to provide the resident with the skills necessary to allow them to understand the unique infectious complications seen in bone marrow transplant patients and to assist them in determining those patients that need to be referred to a tertiary center and those that can be personally managed. Residents will gain knowledge in chemoprophylaxis and immunoprophylaxis, diagnostic difficulties when working with bone marrow transplant patients with infection and appropriate utilization of prophylaxis.

3. Staffing of the Rotation

Faculty are members of the Wayne State University Infectious Diseases Division.

4. Resources

This rotation will occur at Wayne State University under the direction of Dr. Chandrasekar. Dr. Chandrasekar is the ID residency program director at Wayne State University and supervises subspecialty residents from Henry Ford Hospital and William Beaumont Hospital as they rotate through Wayne State for their bone marrow transplantation experience.

5. Patients

Ultimate and primary responsibility for patient care rests upon the attending physician. In this rotation sub-specialty residents never serve as primary care providers, but work as part of the Infectious Diseases bone marrow transplant team at Wayne State University. As their level of skill progresses, their level of participation and responsibility will increase commensurately.

6. Responsibilities

Goal: The resident will gain exposure to the unique infectious complications seen in bone marrow transplant patients. This will assist them in determining those patients that need to be referred to a tertiary center and those that can be personally managed. Residents will also gain knowledge regarding diagnostic difficulties when working with bone marrow transplant patients with infection.

Duties: The sub-specialty resident is expected to:

- a. Care for bone marrow transplant patients including a complete work-up with a history and physical examination in both the inpatient and outpatient settings.
- b. Be responsible for daily patient follow up including appropriate medical record documentation.
- c. Be prepared to discuss all aspects of a patients' illness as it relates to significant findings, progress and treatment plans.
- d. Attend inpatient rounds with the attending physician on weekdays and assigned weekends.
- e. Present significant patient related events that occur during nighttime hours to ensure information transfer and continuity of care.
- f. The sub-specialty resident will participate as a member of the bone marrow transplant patient care team and assumes responsibilities for patients commensurate with their ability.
- g. Participate in rotation related conferences.
- h. Learn by observing and assisting diagnosis related procedures as appropriate.
- i. Participate in outpatient clinics and patient management under the supervision of an attending physician.
- j. Read and be prepared to discuss key literature including articles as recommended.

7. Objectives

- a. Demonstrate a sound knowledge base pertinent to the practice of infectious diseases in bone marrow transplantation patients.
- b. Demonstrate the ability to complete an efficient work up inclusive of history and physical, diagnostic procedures, problem list, working diagnosis and treatment plan.
- c. Follow assigned patients appropriately.
- d. Demonstrate the ability to effectively work with other members of the health care team including other residents, attending physicians and other health care providers to develop a comprehensive treatment plan.
- e. Communicate effectively with patients and their families.
- f. Demonstrate the ability to respond appropriately to abnormal test results.

7. Instructional Methods

Faculty members teaching the resident are responsible for:

- a. Supervision of the resident in accordance with the supervision policy.
- b. Respond promptly to the resident's questions/concerns.
- c. Organize and conduct formal teaching each week, utilizing appropriate lectures, teaching material and literature.
- d. Provide the resident with ongoing performance feedback and skill progression.
- e. Increase the resident's level of responsibility as individual skill levels progress.

9. Evaluation

At the conclusion of each rotation faculty members will summarize and accurately describe the resident's performance on the provided form, discuss this evaluation with the resident and return the form to the residency director. In addition, the resident will summarize and accurately describe the rotation experience and return it to the program office for inclusion in a computer generated report to insure resident anonymity. Residents are further evaluated twice per year by the program director. These evaluation sessions include a formal, written evaluation which is signed by both the director and the resident.

10. Schedule

The schedule for the resident on the bone marrow transplantation service varies according to the site but includes inpatient and outpatient experiences, daily ward and x-ray rounds, weekly Grand Rounds, weekly Sub-specialty Resident Teaching Conferences and monthly Morbidity/Mortality Rounds. Night call, if required, averages six nights per month which includes one weekend each month.

Bone Marrow Transplantation Rotation Competency Objectives

1. Patient Care

- a) By the conclusion of the rotation, the Infectious Diseases Resident will have gained exposure as a member of the consulting team and have assumed responsibility for their assigned patients.
- b) The subspecialty resident will care for bone marrow transplant patients including a complete work-up with a history and physical examination in both the inpatient and outpatient settings.
- c) Attend in-patient rounds

- d) Resident will be responsible for daily patient follow up including appropriate medical record documentation.
 - e) Residents will observe and assist with related procedures.
2. Medical Knowledge
- a) Residents will develop a knowledge base pertinent to the practice of infectious diseases in bone marrow transplantation patients.
 - b) Residents will be exposed to the techniques used in diagnosing infectious diseases in bone marrow transplantation patients and importance of the microbiology laboratory in assisting in caring for such patients.
3. Interpersonal and Communication Skills
- a) Residents are expected to demonstrate professional communication skills throughout their interactions with other members of the health care team including other residents, attending physicians and other health care providers participating in the program to develop a comprehensive treatment plan.
 - b) Residents will be expected to communicate effectively with patients and their families.
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
- 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 regarding infections in bone marrow transplant patients.
 - 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 the facility.

6. Systems Based Practice

- a) All residents will demonstrate conscientious awareness of the impact of their professional activities at the 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.