

## Sample Rotation Objectives

**LEVEL OF TRAINING:** PGY1

**LENGTH OF ROTATION:** 4/5 Weeks

### Goals and Objectives:

**By the end of the rotation the resident should be able to:**

#### **PATIENT CARE**

- (1) Demonstrate the steps required to safely perform a bedside paracentesis or thoracentesis.
- (2) Discuss the diagnostic/management algorithm for evaluating oliguria in a postoperative kidney transplant patient.
- (3) Discuss the diagnostic/management algorithm for evaluating transplant patient with a fever.
- (4) Discuss the diagnostic/management algorithm for evaluating an increased creatinine in a kidney transplant patient.
- (5) Discuss the essential parameters required to rule out bleeding in a posttransplant patient.

#### **MEDICAL KNOWLEDGE**

- (1) Discuss the potential infectious complications associated with immunosuppression.
- (2) Discuss the complications of cirrhosis that warrant consideration of liver transplantation.
- (3) List and describe the basic mechanisms of action and potential adverse effects of commonly used immunosuppressive agents.
- (4) Discuss the options available to patients in need of dialysis for renal failure.
- (5) Discuss the basic cellular immune interactions that lead to a rejection response and the clinical manifestations of allograft transplantation.
- (6) Describe the role of HLA antigens in human transplantation.

#### **PROFESSIONALISM**

- (1) Outline important considerations in discussing DNR status with a patient's family.
- (2) Outline the important steps in explaining a surgical complication to a patient.

#### **INTERPERSONAL AND COMMUNICATION SKILLS**

- (1) Describe the updated treatment plan to a transplant patient on daily rounds.
- (2) Describe the basic considerations involved WHEN talking to a patient's family following a transplant.

#### **SYSTEMS-BASED PRACTICE**

- (1) Describe the basic process by which deceased donor organs are allocated for transplantation.

## **PRACTICE-BASED LEARNING AND IMPROVEMENT**

- (1) Describe the basic criteria used to determine a patient's candidacy for transplant.
- (2) Perform a literature search for presentation to the transplant service on a transplant related issued pertinent to one of your patients.
- (3) Describe the basic steps required to select and prepare a patient for living donation.

### **Learning Activities:**

#### **Operating Room:**

Residents will be assigned to specific surgical procedures.

- Resident responsible for
- (i) reading up on case
  - (ii) serving as 1<sup>st</sup> assist on case
  - (iii) overseeing post-op care including out-patient

The R1 resident will

1. Perform/ First assist in:
  - a. First assist in at least 1 cadaveric multiorgan procurement.
  - b. Perform (with attending or senior fellow supervising) at least 2 vascular access procedures (assuming surgical loupes).
  - c. First assist in non-transplant surgical procedures performed on the transplant service.
2. Participate in:
  - a. At least 2 laparoscopic donor nephrectomies.
  - b. At least 1 kidney transplants.
  - c. Participate in at least 1 liver transplant.
  - d. Participate in at least 1 kidney/pancreas transplant.

#### **Outpatient Clinic (half day clinics):**

The resident will attend at least (Mandatory clinics are assigned to each resident):

- (1) 2 post kidney / kidney/pancreas transplant clinics.
- (2) 2 pre-liver transplant clinics.
- (3) 1 intestinal failure clinic.
- (4) 2 vascular access clinics.
- (5) 2 hepatobiliary tumor clinics.

#### **Organ Harvesting:**

Multiorgan Donors.

To Accommodate Resident Flexibility – Care of patients on the floor will need to be covered by a combination of Nurse Transplant coordinators, PAs, and Transplant Fellows.

#### **Educational Seminars:**

Residents will attend weekly the:

- a. Hepatology/Hepatobiliary Surgery Seminar (Friday 7:30 - 8:30 am)
- b. Multi-disciplinary Liver Tumor Conference (Friday 14:30 – 15:30 hrs)
- c. Transplant Clinical Conference (Monday 14:30-16:00 hrs)
- d. Transplant Fellows Conference (Thursdays 16:30-17:30 hrs)
- e. Resident teaching conference with Dr Fryer (Friday noon-1pm)
- f. Mulidisciplinary Liver Tumor conference (Friday 2:30-3:30 pm)

**Performance Feedback to Residents:**

Resident will be assigned a “score card” at the beginning of Transplant rotation, which they will turn in upon completion of the rotation. This will list all the above objectives. Transplant Attendings will be responsible for helping that R2’s to achieve these objectives.

**Resident**

**Evaluation:**

Residents will be given a written “exit” exam to determine if the learning objectives have been met. The exam will be based both on the knowledge of common transplant surgical procedures and basic Transplantation principles. The exam results will be reviewed with the resident during an exit interview conducted by the Transplant Attending. Residents will also receive a “360°” evaluation including input from transplant coordinators, 11E nurses, SICU nurses, physician’s assistants and Transplant attendings.

**Frequently Asked Questions:**

**\* Transplant fellows compete for OR experience. How will the residents be assured of acquiring the necessary operative experience?**

*Appropriate surgical cases will be assigned to specific residents in keeping with listed target of operations and the RRC requirements. Residents will be told which patients they will be assigned to several days in advance. They will 1<sup>st</sup> assist at surgery and therefore must be prepared (i.e. read up on surgical procedure and familiarize with specific patient details). Fellows will be excluded from the resident’s assigned case unless they are senior enough to guide the resident through the procedure. Depending on the resident’s skills and experience, they will either 1st assist the attending or senior fellow, or they will perform the surgery themselves with an attending or senior fellow 1<sup>st</sup> assisting them.*

**\*The workload outside of the OR is typically very heavy, especially in the SICU and “hepatology” patients. How will this addressed so as to not to interfere with other learning activities?**

*When the R1 is in the OR, SICU coverage of transplant patients will be assumed by the Transplant Fellow with the help of the Transplant in-patient coordinators, PAs, and Critical Care team. Transplant in-patient coordinators and PAs will “round” daily with the critical care service on all Transplant patients to optimize inter-service communication.*

*Surgical residents will be relieved of all responsibilities regarding patients admitted by Hepatology service. The Hepatology service will assume primary care*

*responsibilities for all patients admitted by a Hepatology attending to SICU or IIE. Transplant Fellows, Transplant in-patient coordinators and PAs will interact with hepatology service daily on hepatology patients that are relevant to the Transplant service (i.e. patients that have been listed for liver transplants and patients that are being assessed for liver transplant or other non-transplant surgical procedures). Transplant Fellows and Attendings will be available for surgical assessment of Hepatology patients as needed. Procedures required (paracenteses, thoracenteses, etc.) on these patients will be performed or arranged by the Hepatology service with the help of Transplant in-patient co-coordinators and PAs. Supervision of Hepatology housestaff will be provided by Transplant Fellows as needed.*

*To alleviate R1 responsibilities on IIE, PAs and transplant in-patient coordinators will be trained to help R1s on IIE with clinical responsibilities including History and Physical exams, interactions with consulting services, radiology, etc., and common procedures (IVs, drain removals, central lines, paracenteses, thoracenteses, LPs, wound debridements)*

**\*How will the resident be able to participate in multiorgan donor procurements with potential conflicts of either being on-call, post-call, or not invited?**

*The 80-hour work week will decrease the R1s overall on-call and post-call hours, making residents more available for multiorgan donor procurements which occur sporadically, at unpredictable hours. Transplant procurement coordinators will be mandated to include residents in all procurements. To compensate for time spent on procurements, appropriate time off during the week will be given when needed to comply with RRC work hour limitations.*

**\*Will the 80 hour work decrease the time available to achieve these objectives?**

*By increasing the responsibilities of the Transplant In-patient Coordinators, and Physicians Assistants and off-loading critical care responsibilities to critical care service, R1s will be able to spend their reduced hours pursuing activities with higher educational values. Residents will be given maximum flexibility to arrange their own schedules to optimize their fulfillment of the educational objectives.*

**\*Are there other optional educational opportunities available to surgical residents during the Transplant rotation?**

*(i) Laboratory experience: R1s will be given the opportunity to spend part or all of their Transplant rotation in the Transplant research laboratory where basic science research in islet cell transplantation, xenotransplantation, small bowel transplantation, and CMV virology is ongoing. Residents will be given the opportunity to learning basic research techniques including microsurgery, flow cytometry, and PCR. If a research rotation is chosen, a different set of learning objectives and activities will be made available.*