

Faculty In Charge Of Course:	Aleksandra De Golovine, MD
Participating Faculty:	Drs. De Golovine, Edwards and Pai
Location:	Memorial Hermann Hospital
Offered:	Blocks 1-8, 10, 11, 13
Max. # Students/Period:	1

Course Objective

The student will be exposed to the basic science (physiology/pharmacology) of the specialty as well as to clinical practice. This elective is comprised of a month on the Renal Transplant service with inpatient and outpatient encounters.

Material Covered:

Understanding the pathogenesis, clinical expression, diagnosis, and therapy of acute and chronic renal disease with emphasis on the transplant patient.

Skills Acquired:

Acute and chronic subspecialty care, of medically complex pre- and post-transplant patients.

Overall Objectives:

After successful completion of this rotation, the student will have been exposed to:

- Disorders of acid-base, electrolytes, and bone mineral metabolism in patients with renal disease
- Renal replacement therapy modalities and indications
- Transplant candidacy evaluation and selection at the Medical Review Board
- Surgical overview of kidney and simultaneous pancreas kidney (SPK) transplantation
- Management of kidney and SPK transplant recipients in both the inpatient and outpatient settings.
- Principles of immunosuppression and monitoring of adverse drug-related side effects ,
- Infectious and metabolic complications of Immunosuppression
- Diagnosing and managing acute allograft dysfunction in transplant recipients.
- Monitoring, diagnosing and treating transplantation rejection
- Early and late complications of kidney and SPK transplants (i.e. management of hypertension, diabetes, osteoporosis, hyperlipidemia, etc.).
- Psychosocial aspects of organ donation and transplantation.
- Living Kidney Donor evaluation, approval and donation
- Multidisciplinary team assessments

Activities Of Elective

Number Of New Patients/Student/Week: 10-12 per week

Responsibilities Of Student For Assigned Patients:

Does history/physical:	Yes
Who critiques:	Fellow/Faculty attending/
Follows patients, with appropriate notes as needed:	Yes
Who supervises:	Fellow/Faculty attending/
Does student see ambulatory patients:	Yes

Procedures	Observe	Perform/Assist
Hemodialysis, peritoneal dialysis, and continuous renal replacement therapy	X	
Renal Biopsies	X	
Renal Transplantation and Living Kidney Donation	X	

Scheduled Duties of Student:

Frequency of rounds on patients	Daily
Presents patients to preceptor or attending physician	Yes
Weekly schedule of required teaching sessions	Renal CONFERENCES (required): Internal Medicine and Nephrology Grand Rounds, Transplant Renal Biopsy Conference, Renal Morbidity and Mortality (M&M), Quality Assessment Performance Improvement (QAPI), , Transplant Journal Club

Describe Optional Rounds And Activities, If Any:

N/A

Other Required Activities:

Reading/review of current literature	Yes
Writing or presenting a paper	No

Required Reading:

- Various articles will be provided at the beginning of the rotation, covering the following topics:
 - a. Evaluation of the Potential Renal Transplant Recipient
 - b. Understanding Crossmatch and tissue typing testing
 - c. Induction Immunosuppressive therapy in Renal Transplantation
 - d. Maintenance Immunosuppressive therapy in Renal Transplantation
 - e. Differential diagnosis of infection in renal transplant patients
 - f. Hypertension in renal transplant patients
 - g. Patient survival following renal transplantation
 - h. Renal transplantation in the elderly

Suggested Initial Reading (more articles will be provided during the rotation):

- 1) Brennan, DC. "The management of patients after kidney transplantation." *Renal and Urology News* 28-33, Feb 2012,.
- 2) Mulley et al. "Understanding crossmatch testing in organ transplantation: A case-based guide." *Nephrology* (16)125-133, 2011.
- 3) Wiseman, AC. "Renal Immunology: Immunosuppressive medications." *Clin J Am Soc Nephrol* 11:332-343, 2016
- 4) Rossi, AP et al. "Hypertension, Living Kidney Donors, and Transplantation: Where are We Today?" *Advances in CKD* (22) 154-164, 2015.

How Is Student Evaluated:

Student is evaluated based on presentations, performances on rounds and knowledge from readings.

Who Evaluates Students:

Faculty attending

Unique Features Of This Elective:

This elective is unique in the scope of the curriculum including core material relating to patients with fluid and electrolyte disorders, acute renal failure, and renal transplantation issues, and management of common problems in immunocompromised patients.