

LLUMC – Transplant Surgery

PGY 1

Goals:

Loma Linda University Medical Center will provide a learning environment for the care, treatment and follow up of transplantation patients. Surgical basic science, including immunosuppressant, fluids, electrolytes, wound healing and nutrition, will be emphasized. Clinically, residents will assess surgical pathology pre-operatively, develop clinical judgment on managing these issues, and learn operative skills to address the problem. Careful postoperative care and follow up will be emphasized.

Objectives:

Medical Knowledge:

Kidney Transplantation:

- Understand the organ procurement operation and methods of organ preservation.
- Understand methods of kidney preparation including differences with the right and left kidneys.
- Understand methods of the organ transplant operation and differences in placement of kidney to right or left iliac fossa.
- Understand issues regarding stents and drains in kidney transplantation.

Liver Transplantation:

- Understand the organ procurement operation and methods of organ preservation.
- Understand principles of graft preparation and arterial anatomical variations.
- Understand and participate in the recipient hepatectomy and allograft implantation; understand differences in approach and variations including use of veno-venous bypass.

Pancreas Transplantation:

- Understand the organ procurement operation and methods of organ preservation.
- Understand principles of graft preparation and arterial anatomical variations.
- Understand the difference in organ placement for transplantation and with addressing exocrine drainage.
- Understand the main issues regarding postoperative care of these patients.

General Issues in Transplantation:

- Understand preoperative assessment and optimization.
- Understand indications for solid organ transplantation.
- Understand contraindications to transplantation.
- Understand issues in the assessment of donor suitability.
- Understand general principles of organ preservation.
- Understand the concept of and impact of cold / warm ischemia.

- Define brain death and understand the ethical issues surrounding brain dead donors.
- Define donation after cardiac death.
- Understand HLA matching and organ outcomes in kidney transplantation.
- Demonstrate a greater understanding of the mechanisms of pharmacologic immunosuppression used with organ transplantation, side effects, and indications for use of various agents.

Patient Care:

- Establish basic proficiency in providing pre-operative and post-operative care (writes appropriate pre-op and post-op orders for floor patients, handles nursing calls appropriately, and manages most routine post-operative care with minimal intervention by supervisor).
- Take an appropriate history to evaluate patients with transplant issues to include:
 - A complete history of present illness
 - Presence of any co-morbidities
 - A review of social and family history impacting the present problem
 - A complete review of systems
- Demonstrate an increasing level of skill in the physical examination of the transplant patient with a special emphasis in recognition of the surgical abdomen.
- Develop a proficiency in evaluation and interpretation of the different diagnostic modalities including: X-rays, ultrasounds, CT scans, Contrast studies and MRIs.
- Discuss treatment options, risks and potential complications of patients with transplant issues.
- Assist in the performance of general surgical and laparoscopic procedures.
- Participate in the pre- and post- operative surgical management of patients after organ transplantation.
- Participate in the peri-operative management of immunosuppressive drug therapy, including monitoring drug levels and treating potential toxicity.
- Diagnose acute and chronic organ rejection using clinical signs and symptoms as well as serum chemistries and radiologic studies.
- Recognize and manage postoperative surgical complications, including wound infection, anastomotic stenosis and leaks, and lymphocele formation in immunosuppressed patients.
- Participate in the evaluation of potential candidates for living-related and cadaveric organ transplantation, including
 - clinical suitability
 - strength of social support
 - expected graft and patient survival
- Participate in the evaluation of patients suspected of organ rejection to include:
 - laboratory and radiologic testing
 - administration of immunosuppressive agents

- following patients for potential acute and chronic side effects
- Demonstrate skill in basic surgical techniques, including:
 - Knot tying
 - Exposure and retraction
 - Knowledge of instrumentation
 - Incisions
 - Closure of incisions
 - Handling of graft material including mesh
 - Establishing pneumoperitoneum
 - Handling of laparoscopic instruments
 - Handling of the laparoscopic camera
- Evaluate and institute management of abdominal wound problems.
- Coordinate pre and post-surgical operative care for patients in the Transplant Surgery rotation.
- Assist in closure of abdominal incisions and exhibit competency in suture technique.
- Be able to apply and remove all types of dressings.
- Make and close a variety of incisions and tie knots using sterile technique.

Professionalism:

- The resident should be receptive to feedback on performance, attentive to ethical issues and be involved in end-of-life discussions and decisions.
- Understand the importance of honesty in the doctor-patient relationship and other medical interactions.
- Treat each patient, regardless of social or other circumstances, with the same degree of respect you would afford to your own family members.
- Learn how to participate in discussions and become an effective part of rounds, attending staff conference, etc.
- Complete all assigned patient care tasks for which you are responsible or provide complete sign out to the on-call resident.
- Maintain a presentable appearance that sets the standard for the hospital that includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.
- Assist with families of critically injured/ill patients and guidance of families towards or through difficult decisions.
- Demonstrate mentoring and positive role-modeling skills.
- Provide an appropriate orientation and guide all medical students as to their roles and responsibilities during the rotation.
- Provide an appropriate orientation to other PGY 1's that are about to rotate through the transplant surgery service.
- Complete the professionalism curriculum for the current month

Systems-Based Practice:

- Understand, review, and contribute to the refinement of clinical pathways
- Understand the cost implications of medical decision-making
- Partner with health care management to facilitate resource efficient utilization

of the

- hospital's resources.
- Describe in general terms the benefits of clinical pathway implementation
- Develop a cost-effective attitude toward patient management.
- Develop an appreciation for the benefits of a multi-disciplinary approach to management of critically ill surgical patients.
- Comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations regarding patient privacy and confidentiality.
- Demonstrate knowledge in steps and conduct during major surgical procedures.
- Have clear indications and know when it is appropriate to perform a surgical procedure.
- Have an understanding of when it is not appropriate to operate.
- Demonstrate knowledge of steps to be taken to have a patient ready for surgery including preoperative workup and medical clearance.

Practice-Based Learning & Improvement:

- Demonstrate the ability to:
 - Evaluate published literature in critically acclaimed journals and texts
 - Apply clinical trials data to patient management
 - Participate in academic and clinical discussions
- Accept responsibility for all dimensions of routine patient management on the wards
- Apply knowledge of scientific data and best practices to the care of the surgical patient
- Facilitate learning of medical students and physician assistant students on the team.
- Use the LLUMC library and databases on on-line resources to obtain up to date information and review recent advances in the care of the surgical patient.
- Demonstrate a consistent pattern of responsible patient care and application of new knowledge to patient management.
- Demonstrate a command and facility with on line educational tools.
- Complete the personal learning project as outlined in the practice based learning and improvement curriculum

Interpersonal & Communication Skills:

- Work as effective team members
- Cultivate a culture of mutual respect with members of nursing and support staff
- Develop patterns of frequent and accurate communication with team members and attending staff
- Gain an appreciation for both verbal and non verbal communication from patients and staff
- Demonstrate consistent respectful interactions with members of nursing and support staff
- Demonstrate consistent, accurate and timely communication with members of

- the surgical team
- Demonstrate sensitivity and thoughtfulness to patients concerns, and anxieties.
 - The resident will demonstrate the ability to provide and request appropriate consultation from other medical specialists.

Contact information:

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Didactic Schedule:

- **Liver Case Conference:** 2x month on Tuesday AM and Wednesday PM
- **Liver Pathology Conference:** Wednesday at 1:00 in Pathology Dept
- **Kidney-Pancreas Transplant Patient Selection Committee:** Thursday at 7:45 in the Transplant Institute (PGY 1 resident MUST attend RCRMC Skills Lab at RCRMC during this time)
- **Transplant Grand Rounds:** Friday at 8:30 – 10:30 Unit 4100 Conference Room
- **LLUMC General Surgery Residency Basic Science:** 6:00 am A-level amphitheater (PGY 1 resident will attend this and not need to come to RCRMC basic science lecture)
- **LLUMC M&M and Grand Rounds:** Wednesday 7:00 am A-level amphitheater
- **PGY 1 Skills Lab:** Thursday 7:00 – 9:00am at RCRMC