

RONALD REAGAN UCLA MEDICAL CENTER LIVER TRANSPLANT ANESTHESIA GOALS AND OBJECTIVES

GOALS	EDUCATIONAL OBJECTIVES	CLINICAL RESPONSIBILITIES / ACTIVITIES	EVALUATIONS
<p>Patient Care: To provide the resident with clinical experience in the anesthetic management of adults and pediatric surgical patients with end-stage liver disease that is compassionate, appropriate, and effective.</p>	<ol style="list-style-type: none"> 1. Continued improvement in procedural skills (arterial catheter, central line insertion, pulmonary artery catheter; as appropriate: flexible fiberoptic intubation and transesophageal echocardiography). 2. Learn and demonstrate proficiency in the evaluation and management of patients with end-stage liver disease: <ol style="list-style-type: none"> a) Pre-operative assessment: findings to seek in the history and physical exam b) Anesthetic management of patients with liver disease for nontransplant surgery c) Post-operative liver dysfunction 3. Learn and demonstrate proficiency in the administration of anesthesia for liver transplantation: <ol style="list-style-type: none"> a) Operating room set-up for OLT b) The stages of the case and their implications on patient management c) The management of reperfusion d) Hepatopulmonary syndrome e) The association of pulmonary hypertension with ESLD and its management implications f) Hepatorenal syndrome g) Rapid infuser use h) Pediatric issues: <ol style="list-style-type: none"> i Volume resuscitation in children ii The risk of hepatic artery thrombosis 4. Residents will demonstrate proficiency in the selection and use of the various available blood products and knowledge of their potential complications. 	<ol style="list-style-type: none"> 1. UCLA is one of the busiest liver transplant centers in the world, performing approximately 200 transplants a year. 2. Residents on the liver transplant rotation will be scheduled to provide anesthesia services in the liver transplant operating room. This OR is used by the surgical transplant service for a number of procedures, including pediatric and adult liver transplantation, pediatric and adult small bowel transplantation, combined organ transplantation involving the liver, kidney and/or small bowel, post-transplant exploratory surgery, vascular access surgery, tumor resection, incisional hernia repair and tracheostomy – to name some of the more common procedures. 3. The resident will perform the preoperative assessment, discuss the case with the attending the night before and, be directly involved in the management of the case. 4. The residents will receive a manual for the liver transplant service, which is designed to provide them with knowledge about the rotation. It includes literature about various 	<ol style="list-style-type: none"> 1. Monthly on-line faculty evaluations. 2. 360 evaluations. 3. Quarterly meeting with program director.

		<p>hepatic pathology and their anesthetic implications.</p> <ol style="list-style-type: none"> Residents will be scheduled in the Cardiac Service call and on occasion be scheduled on the OR call. Residents may participate in simulation. 	
<p>Medical Knowledge: To acquire the clinical and applied science knowledge pertinent to the management of the surgical patient with end-stage liver disease.</p>	<ol style="list-style-type: none"> Improved understanding of the physiology of normal and pathologic cardiovascular system. Knowledge of the pharmacology of anesthetic agents and their effects on the cardiovascular system, drugs commonly used in the treatment of end-stage liver disease, and their interaction with anesthetic drugs. Learn and demonstrate proficiency in transfusion medicine: <ol style="list-style-type: none"> Blood product storage and selection Diagnosis and treatment of coagulopathies, including citrate toxicity and fibrinolysis Transfusion reactions Interpretation of invasive monitoring lines (arterial, central and pulmonary artery). 	<ol style="list-style-type: none"> Document preanesthetic evaluations on all patients. Individual supervision and instruction in the operating room. Directed independent study. Attend annually scheduled lectures. Attend resident simulation. Discuss topics listed under Educational Objectives with the supervising faculty daily on a one-on-one basis as determined by the cases of the day. 	<ol style="list-style-type: none"> Monthly on-line faculty evaluations. Self evaluations. 360 evaluations. Quarterly meeting with program director.
<p>Practice Based Learning: To be able to investigate and evaluate their own patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.</p>	<ol style="list-style-type: none"> Use information technology, on-line resources, expert consultation, and primary texts to expand their knowledge base. Learn to critically evaluate the liver transplant anesthesia literature. Apply scientific evidence to decision making. Compare evidence-based practice to commonly taught experience based decision making to develop a personal practice strategy. Understand how to assess the impact of one's actions on outcomes. 	<ol style="list-style-type: none"> Obtain feedback from the supervising faculty. Review and discuss scientific literature with the supervising faculty. Participate in departmental Q/A. Attend faculty lectures on statistics and critical literature evaluation Attend resident simulation. 	<ol style="list-style-type: none"> Daily faculty-resident interaction in the operating room. Self evaluations. Monthly on-line faculty evaluations. Quarterly meeting with program director.
<p>Interpersonal and Communication Skills: To be able to demonstrate communication skills that result in effective information exchange and appropriate interaction with colleagues, surgeons, patients, and ancillary personnel</p>	<ol style="list-style-type: none"> Understand the importance of effective communication between the anesthesiologist and the transplant surgeon, OR, ICU and PACU staff. Learn effective communication techniques during periods of stress in order to decrease patient and family anxiety. Demonstrate the ability to effectively communicate concerns with surgeons. To learn strategies and techniques for teaching medical students the principles of anesthesiology in end-stage liver disease. 	<ol style="list-style-type: none"> Modeling by the anesthesia faculty Interact with patients and their families. Discuss the preanesthetic evaluation and plan with the supervising faculty and pertinent members of the health care team. Attend resident simulation. Participate in teaching medical students in the operating room. 	<ol style="list-style-type: none"> Daily faculty-resident interaction in the operating room. 360 evaluations. Monthly on-line faculty evaluations. Feedback from medical students. Quarterly meeting with program director.

<p>Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.</p>	<ol style="list-style-type: none"> 1. Demonstrate compassionate and respectful behaviors when interacting with patients and their families. 2. Learn communication techniques with patients and families of different cultural backgrounds who possibly speak little English. 3. Demonstrate sensitivity to patients various age, gender, ethnic, and religious backgrounds. 4. Understand the legal and ethical issues involved in patient consent. 5. Demonstrate a commitment to advocating patient care that is appropriate for their individual needs. 6. Adhere to institutional and departmental standards and policies. 7. Demonstrate ability to appropriately take on, share and delegate patient care responsibilities. 8. Demonstrate the ability to effectively balance one's own personal affairs with clinical and educational duties as outlined in this document. 9. Demonstrate a commitment to ongoing professional development. 10. Learn how to discuss and record cases with complications and/or poor outcomes. 	<ol style="list-style-type: none"> 1. Modeling by the anesthesia faculty 2. Attend conferences where many of these issues are discussed. 	<ol style="list-style-type: none"> 1. Daily faculty-resident interaction in the operating room. 2. 360 evaluations. 3. Monthly on-line faculty evaluations. 4. Quarterly meeting with program director.
<p>Systems Based Medicine: To be familiar with the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.</p>	<ol style="list-style-type: none"> 1. Learn the cost of the drugs, monitoring equipment and overall procedures involved in surgical care. 2. Understand how to do cost analysis for health care systems. 3. Understand the complex systems that form the foundation for care of patients suffering from various diseases. 4. Learn how to effect improved operating room efficiency safely. 5. Appreciate the complex interactions that go on between primary care teams, surgeons and anesthesiologist in the overall hospital management of these complex patients. 6. Learn how to effectively use information management in the preoperative evaluation. 	<ol style="list-style-type: none"> 1. Interact with surgical, intensive care, and nursing services in a unique environment, which will require sensitivity to structured and multidisciplinary, simultaneous patient care. 2. Attend resident simulation. 	<ol style="list-style-type: none"> 1. Daily faculty-resident interaction in the operating room. 2. 360 evaluations. 3. Monthly on-line faculty evaluations. 4. Quarterly meeting with program director.