

General Surgery Residency

Loma Linda University

VAMC General Surgery (Green) Goals and Objectives

PGY 1

Goals:

Loma Linda University Medical Center will provide a learning environment for various gastrointestinal surgical pathology and general surgical issues. Surgical basic science, including fluids and 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. Residents will develop cognitive and technical skills in dealing with complex gastrointestinal pathology.

Objectives:

MEDICAL KNOWLEDGE

Understand the physiology of the postoperative patient, including postoperative metabolism, wound healing, nutrition, hemostasis, and fluid and electrolyte issues.

Understand the physiology of common postoperative problems in patients on the ward, including surgical infections, hemorrhage, and thrombotic events.

Understand perioperative risk stratification of patients

Understand the initial work up of common hernia, foregut and hepato-biliary patients on the green surgery service.

Understand the basic physiological changes following bilateral adrenalectomy, splenectomy, and Whipple procedure.

Understand the anatomy of hepaticojejunostomy, gastrojejunostomy, pancreaticojejunostomy, esophagogastostomy, and a Roux – en- Y anastomosis.

Understand the physiology of Gastroesophageal reflux and therapy

Understand the basic physiology of gastric dysmotility and gastric ulcer

Understand the basic physiology of digestion.

Understand the anatomy of the biliary system

Understand the physiology of gallbladder disease

Understand the physiology of the synthetic function of the liver

Understand the physiology of the exocrine and endocrine functions of the pancreas.

Understand the basic epidemiology, symptoms, diagnosis and staging of neoplasms of the exocrine pancreas (adenoCA of Pancreas)

Understand the physiology of the spleen

Understand the anatomy of the abdominal wall, indications for treatment of abdominal wall hernia.

Understand the physiology of the adrenal gland

Recognize the indications for adrenalectomy

Differentiate between conventional open and scope-assisted surgery, including:

- Anesthetic considerations
- Effects of pneumoperitoneum
- Cardiovascular stability
- Need for team participation
- Differences in patient outcome

Discuss the physical limitations imposed on the user participating in minimal access

surgery, including:

- Surgeon fatigue and diminished proficiency over time
- Two-dimensional perspective
- Visual limitations of scope and monitoring equipment
- Crucial importance of patient position and cannula position for optimum exposure

Understand strategies to offset the difficulties, including:

- Proper alignment of eye-camera instrument axes
- Efficient biomechanics
- Effective use of assistants
- Appropriate use of other advanced technologies such as endoscopic ultrasound

Analyze the factors affecting the decision to select a minimal access approach (as opposed

to an open surgical approach) for a particular clinical problem.

Explain the concept of the *learning curve*, and discuss the need for quality control in the education and evaluation of surgical house staff in developing proficiency in minimal access surgery.

Explain the mechanics and principles for safe and effective use of the following equipment/procedures:

- Cautery (monopolar and bipolar)
- Laser
- Telescopic direction
- Insulation technique and hazards
- Maintaining visualization of operative field
- Dissecting and knot tying

Discuss appropriate anesthetic management for minimal access (MA) techniques for surgery involving the abdomen, thorax, and joints and soft tissue spaces.

Discuss the indications and contraindications for laparoscopic cholecystectomy.

Describe the technical aspects of preparing for and operating on a patient undergoing LC.

Identify major considerations for the decisions involved in converting from laparoscopic to open cholecystectomy, including:

- Difficulty identifying anatomy (i.e., common duct)
- Poor visibility
- Hemorrhage control
- Evaluation and treatment of visceral or vascular injuries and adhesions

PATIENT CARE

Develop an understanding of the management of common postoperative patients on VA green-surgery and how these principles prevent complications.

Understand the common methods of treating common postoperative complications including: chest pain, shortness of breath, hypotension, low urine output, fever, abdominal pain, and anastomotic leak.

Understand the concepts surrounding drain and catheter care including: central lines, bladder catheters, chest tubes, feeding tubes, nasogastric tubes, and surgically placed tubes.

Understand the management of small bowel obstruction

Understand the management of enterocutaneous fistula.

Understand the management of ileus.

Understand the interpretation of laboratory and radiographic liver tests.

Recognize the initial workup for the patient with pancreatic neoplasm

Understand the perioperative issues of the patient undergoing splenectomy

Comprehend the perioperative issues of the patient undergoing bilateral adrenalectomy

Understand the perioperative issues of unilateral adrenalectomy

Understand the potential complications of abdominal wall hernia repairs and their preventive strategies

Understand the effects of aging on perioperative management of the surgical

Provide assistance in laparoscopic surgery (e.g., manage camera, first assist).

Demonstrate familiarity with laparoscopic equipment, including setup and trouble - shooting: insufflators, video equipment and camera

Demonstrate understanding of basic principles of patient positioning and room setup for diagnostic laparoscopy and LC.

Perform entry of body cavities using open (Hassan cannula) and closed (Veress needle) access techniques.

Recognize when satisfactory pneumoperitoneum has been achieved.

Demonstrate familiarity with danger signs (e.g., hypotension, hypercarbia) and appropriate action when patient does not tolerate pneumoperitoneum.

Perform MAS procedures of increasing complexity under supervision, including:

- Diagnostic laparoscopy
- LC
- Laparoscopic appendectomy
- Other procedures not requiring suturing or other advanced techniques

Demonstrate facility with laparoscopic suturing and knot-tying using a box trainer or other simulator.

Demonstrate the ability to convert from an MA to an open approach in a variety of surgical settings.

Perform appropriate preoperative work-up, and supervise postoperative care of patients undergoing laparoscopic procedures.

PRACTICE-BASED LEARNING AND IMPROVEMENT

Apply knowledge of scientific data to the care of the surgical patient.

Facilitate the learning of medical students and physician assistant students on the team.

Demonstrate improvement in clinical management of patients by continually improving medical care related knowledge and skills during the rotation.

Develop an attitude of responsibility for the patients on the wards, and in so doing develop the skill of self-assessment with the goal of continuous improvement in practice management style.

Understand the importance of critically reading and discussing medical literature pertinent to patients critically ill

Importantly discuss performance with respect to care of patients and progress made during rotation with Chief of Service or designee at mid-rotation meeting.

Learn how to effectively utilize hospital and University educational resources and begin to apply literature based and evidence based concepts as well as experimental evidence to their daily practice of surgery.

INTERPERSONAL AND COMMUNICATION SKILLS

Establish rapport with patients and their families.

Perform a patient-centered medical interview.

Engage patients in shared decision-making, and participate in family discussions

Effectively and considerately communicate with team staff in a manner that promotes care coordination.

Respectfully interact with patients, staff, and families.

Learn to listen and assess non-verbal cues from patients and staff

Work effectively with the team, communicating issues appropriately and succinctly.

PROFESSIONALISM:

Demonstrate respect and compassion for all patients.

Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all patients and their families.

Assist with families of critically injured/ill patients and guidance of families towards or through difficult decision

Adhere to the local institutional code of conduct, demeanor, behavior and attire.

Demonstrate mentoring and positive role-modeling skills

Learn and practice the ethical principles involved with caring for the surgical population including, consent-ability, confidentiality, and informed consent.

SYSTEMS-BASED PRACTICE

Work well with multidisciplinary teams, coordinating care and effectively working with VA hospital team and other providers in VA setting.

Comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations regarding patient privacy and confidentiality

Develop a basic understanding of local, regional, national and international economic, societal, and clinical impact of hospitalized patient.

Develop an appreciation for the benefits of a multi-disciplinary approach to management of critically ill surgical patients.

Learn to practice cost-effective health care without sacrificing quality of care

Assist patients to negotiate the medical system in a consistent and fair manner. Partner with health care managers to assist in providing seamless care across systems.