



HARBOR-UCLA MEDICAL CENTER

Department of Surgery / General Surgery Residency Program

*Goals and
Objectives*

2014-2015

COUNTY OF LOS ANGELES HARBOR-UCLA MEDICAL CENTER

General Surgery Residency Program

Christian de Virgilio, MD, Program Director
Department of Surgery
Residency Program Office:
1000 W. Carson Street, Box 461, Bldg. F-7
Torrance, CA 90509
Phone 310.222.2700 • Fax 310.533.1841

Revised June 2014

Table of Contents

Program Goals	4
Objectives	4
Program Design	4
R1 Overview	
Overall Goals	5
Basic Objectives	5
Rotation Learning Objectives	5
Cardiothoracic.....	5
Colon & Rectal Surgery	7
Endovascular Surgery	9
GI/Surgical Oncology	10
Head & Neck Surgery	13
Neurosurgery	14
Plastic & Reconstructive Surgery	16
Trauma Acute Care Surgery & Critical Care	18
Urology	20
Vascular Surgery	23
R2 Overview	
Overall Goals	27
Rotation Learning Objectives	27
Burn Management – USC	27
Cardiothoracic Surgery	29
GI/Surgery Oncology	29
Liver Transplantation – UCLA	30
Pediatric/Breast	30
Pediatric Surgery - Children’s Hospital	32
Trauma & Critical Care	32
Vascular Surgery	33
R3 Overview	
Overall Goals	35
Rotation Learning Objectives	35
Breast	35
Colon & Rectal Surgery	35
General Surgery – Kaiser	37
Trauma Acute Care Surgery & Critical Care	38
R4 Overview	
Overall Goals	42
Rotation Learning Objectives	42
Cardiothoracic Surgery	42
Endocrine.....	43
General Surgery-Kaiser	46
Trauma & Critical Care	47
Kaiser Vascular Surgery	48
R5 Overview	
Overall Goals	51
Rotation Learning Objectives	51
Colon & Rectal Surgery	51
GI/Surgical Oncology	53
Trauma Acute Care Surgery & Critical Care	55
Vascular Surgery	57

Program Goals

The overall goal of the Harbor-UCLA General Surgery Residency Program is to develop ethical, competent, and fully qualified general surgeons who, upon completion of training, will dedicate themselves to a high standard of surgical practice and contribute to the ongoing provision of quality patient care.

OBJECTIVES

1. Provide a surgical training program that permits maximum opportunity for post-graduate education.
2. Ensure that all residents in training will acquire detailed knowledge, experience, and technical skills in relation to preoperative, operative, postoperative care of patients of all dimensions and complexities in the following areas:
 - Alimentary Tract
 - Abdomen
 - Breast
 - Skin and Soft Tissue
 - Vascular System
 - Comprehensive Management of Trauma, Burns, and Emergency Surgery
 - Surgical Critical Care
 - Abdomen
 - Head and Neck, and;
 - Endocrine System

PROGRAM DESIGN

The Residency Program is divided into a junior, senior, and chief resident experience. Rotation schedules for all levels of training are designed to accommodate a "level appropriate" experience with specific learning expectations and responsibilities corresponding to that particular level. Residents expecting to complete residency training are provided ample opportunity to participate in operative cases which will satisfy ABS application prerequisites as well as maintain Program compliance with ACGME-RRC Defined Categories in General Surgery target minimums.

Scholarly activity is strongly encouraged and a major highlight of Program design. To guarantee an environment of maximum opportunity for post-graduate education, Program curriculum advocates one day per week (normally, Wednesday) during which service related work is minimized and various teaching conferences are presented.

R-1 Overview

The first year resident rotates on all General Surgical Services (GI/Oncology; Vascular Surgery; Colorectal Surgery; and Trauma, and Endovascular). In addition, the R-1 will rotate through the Surgical Subspecialties of Urology, Neurosurgery, Plastic and Reconstructive Surgery, and Head and Neck Surgery. The junior resident is responsible for the day-to-day care of surgical patients on the service to which they are assigned. Senior residents and faculty supervise the R-1. A major goal of first year training is to teach the novice surgeon to understand the principles of pre- and postoperative care. The R-1 will gain valuable experience both as an assistant and an operating surgeon working under close senior supervision. These rotations promote surgical competence and confidence by providing a well-balanced experience.

R-1 OVERALL GOALS

To encourage the development of:

1. Clinical judgment
2. Clinical skills
3. Humanistic qualities
4. Professional attitudes

R-1 BASIC OBJECTIVES

Upon conclusion of the first year of basic surgery training, the R-1 resident will be able to:

1. Obtain complete medical histories
2. Perform complete medical examinations
3. Define patient problems
4. Develop rational plans for diagnosis
5. Implement treatments based on etiology, pathogenesis and clinical manifestations of various diseases
6. Monitor responses to treatment, including side effects from drugs
7. Evaluate patients preoperatively
8. Participate in operations
9. Follow and participate in postoperative care

R-1 ROTATION LEARNING OBJECTIVES

Cardiothoracic Surgery

The goal of this rotation is to expose the second year resident to clinical management of the patient on the Cardiothoracic Surgery Service including patients with coronary artery disease, congenital defects, cardiomyopathy, and penetrating cardiothoracic trauma. Additionally management of the patient with thoracic neoplasms will play an important role.

Objectives

1. Perform appropriate cardiovascular history and examination of the patient
2. Manage the cardiothoracic patient pre and post-operatively in the coronary care unit
3. Liaison with the cardiology team and understand the indications for the use of various cardiac imaging and assessment tests
4. Assist during cardiothoracic surgery procedures with particular emphasis on saphenous vein identification and harvest, and manage lower extremity wounds
5. Perform limited cardiothoracic procedures including pericardiocentesis; manage of pacing wires, thoracostomy tubes, endotracheal tubes, and tracheostomies

6. Assist in thoracic surgery cases including evacuation of hemothoraces, clotted hemothoraces, and resection of thoracic tumors
7. Formulate appropriate postoperative care including both critical care and ward management
8. Understand need for cardiac rehab and act as the liaison between the primary medical team and family and care givers to formulate a discharge plan and prepare for adequate postoperative care

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the cardiothoracic surgery patient

- Develop expertise in the various bedside and surgery assist techniques involved in cardiothoracic surgery cases and patients
- Ability to perform a good pre and post op examination of cardiothoracic surgery patients
- Ability to monitor and maintain optimal patient care management skills in the cardiothoracic intensive care unit

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the cardiothoracic surgery patient.

- Understand the fundamental principles of anatomy, histology, and function of the thorax, heart, and lungs
- Understand the epidemiology and natural history of cardiovascular disease and thoracic disease and trauma

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common coronary artery disease, congenital defects, cardiomyopathy, and penetrating cardiothoracic trauma
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with cardiovascular or thoracic diseases
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Colon and Rectal Surgery

The goal of this rotation is to provide R-1 exposure to the etiology and clinical management of colon and rectal diseases.

Objectives

1. Demonstrate skill in basic surgical techniques, including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Knowledge of instrumentation
 - d. Incisions
 - e. Closure of incisions
2. Evaluate emergency department or clinic patients who present with problems referable to colon and rectal disorders
3. Serve as assistant to the primary surgeon during operations of the small intestine, colon, and anorectum
4. Perform less complicated surgical procedures such as:
 - a. Meckel's diverticulectomy
 - b. Appendectomy
 - c. Hemorrhoidectomy and hemorrhoid banding
 - d. Anal fissurectomy and fistulotomy
 - e. Incision and drainage of perirectal abscesses
5. Accept responsibility (under the guidance of the chief resident and attending surgeon) for the postoperative management of:
 - a. Nasogastric tubes
 - b. Intestinal tubes
 - c. Intra-abdominal drains
 - d. Intestinal fistulas
 - e. Abdominal incisions (simple and complicated)
6. Evaluate and manage nutritional needs (enteral and parenteral) of surgical patients until normal GI function returns

7. Provide follow-up care to the surgical patient in the outpatient clinic

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the colorectal surgery patient

- Develop expertise in the various techniques including draining simple and horseshoe perianal abscesses and other minimally invasive procedures common to the service's patient population
- Ability to learn the indications in performing good small bowel follow throughs, barium enemas, CT scan, and other related diagnostic radiologic testing
- Ability to perform a good colon, rectal, and anus exam
- Ability to perform a work-up for lower GI bleeding

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the colorectal patient.

- Understand the fundamental principles of anatomy, histology, and function of the anal canal, colon and rectum
- Understand the epidemiology and natural history of lower GI bleeding, carcinoma of the anal canal, colon, and rectum
- Understand the disease processes related to Crohn's disease and Ulcerative Colitis and the disease differences

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common colon and rectal diseases

- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with colorectal diseases
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Endovascular Surgery

The goal of the Endovascular Surgery rotation is to enhance the R-1's understanding of and skills relating to the management of patients with endovascular disease and surgical techniques.

Objectives

1. Demonstrate skill in basic endovascular surgical techniques
2. Screen and evaluate patients for endovascular vascular disease
3. Perform the preoperative assessment and postoperative care of patients undergoing major endovascular surgical procedures
4. Participate in surgery for endovascular procedures, including:
 - a. Aortic aneurysm
 - b. Iliac stenosis
 - c. Carotid stenting

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the endovascular patient

- Develop expertise in performing preoperative assessment and postoperative care of patients undergoing endovascular surgical procedures
- Learn and understand the indications in which vascular diseases best benefit from endovascular intervention
- Ability to perform a good endovascular exam

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the endovascular patient.

- Understand the fundamental principles vascular and arterial disease and minimally invasive techniques which offer an immediate advantage over more traditional, yet highly invasive surgeries
- Understand the epidemiology and natural history of lower GI bleeding, carcinoma of the anal canal, colon, and rectum
- Understand the disease processes related to cerebrovascular disease, upper and lower extremity occlusive diseases, aneurysms, vascular trauma, angio access, and venous disease

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common endovascular diseases
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with endovascular diseases
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

GI/Surgical Oncology

The goal of the GI/Surgical Oncology rotation is to provide R-1 level experience pertaining to the clinical management of gastrointestinal disorders encountered in the practice of General Surgery in an academic medical center. The Surgical Oncology component of the rotation exposes the R-1 to the clinical management of diseases encountered in the practice of surgical oncology. The rotation

emphasizes judgment regarding breast problems as well as operative techniques. First year residents will see patients in the clinic, follow them to the operating room, and are involved in all of the decision-making in cases.

Objectives (GI)

1. Demonstrate skill in basic surgical techniques, including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Knowledge of instrumentation
 - d. Incisions
 - e. Closure of incisions
2. Evaluate emergency department or clinic patients who present with problems referable to the GI tract
3. Serve as assistant to the primary surgeon during operations of the esophagus, stomach, small intestine, liver, biliary tract, and pancreas
4. Perform less complicated surgical procedures such as:
 - a. Gastrostomy
 - b. Meckel's diverticulectomy
 - c. Appendectomy
5. Accept responsibility (under the guidance of the chief resident and attending surgeon) for the postoperative management of:
 - a. Nasogastric tubes
 - b. Intestinal tubes
 - c. Intra-abdominal drains
 - d. Intestinal fistulas
 - e. Abdominal incisions (simple and complicated)
6. Evaluate and manage nutritional needs (enteral and parenteral) of surgical patients until normal GI function returns
7. Provide follow-up care to the surgical patient in the outpatient clinic

Objectives (Surgical Oncology)

1. Demonstrate skill in basic surgical techniques, including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Knowledge of instrumentation
 - d. Incisions
 - e. Closure of incisions
2. Learn the characteristics of the various staging systems and explain their use in evaluating malignant neoplasms
3. Become competent in the appropriate usage of tumor markers, tumor excretory metabolites, imaging studies, and diagnostic cytohistologic techniques
4. Understand the indications for curative versus palliative treatment, and formulate therapeutic plans for each approach
5. Become familiar with currently used chemotherapy, radiotherapy, and immunotherapy protocols for common cancers
6. Understand the current applications of genetic screening for cancer

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the surgical GI oncology patient

- Be able to complete a comprehensive history and physical for a surgical oncology patient.
- Be able to do appropriate pre and postoperative care for a surgical oncology patient

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the surgical oncology patient.

- Know basic anatomy of the hepatobiliary tract, pancreas, liver and GI tract.
- Have a basic understanding of common cancers, i.e. breast, soft tissue, hepatobiliary, pancreatic, and GI tract

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common gastrointestinal disorders and diseases encountered in the practice of surgical oncology
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with GI oncology diseases
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Head and Neck Surgery

The goal of this rotation is to expose the R-1 to clinical management of diseases encountered in the practice of Head and Neck Surgery.

Objectives

1. Perform and record a focused ENT history and physical examination.
2. Evaluate patients with facial trauma, including fractures, lacerations, hemotympanum, and epistaxis
3. Perform tracheostomy on adults under direct supervision
4. Perform evaluation of a neck mass, and provide appropriate treatment
5. Interpret radiologic examinations of sinuses
6. Perform simple endoscopy including:
 - a. Nasopharyngoscopy
 - b. Indirect laryngoscopy
7. Evaluate radiologic studies of the head and neck; including computed axial tomography (CT) scanning
8. Evaluate and treat head and neck abscesses and other masses
9. Evaluate and treat epistaxis with anterior and posterior nasal packing

Patient Care

- Perform a history with particular attention to head and neck complaints
- Formulate a management plan
- Clearly document patient management in the medical record

Medical Knowledge

- Recognize the symptoms and signs of a variety of head and neck conditions
- Formulate differential diagnoses for common ENT diseases
- Manage common ENT problems
- Use diagnostic and therapeutic options appropriately
- Recognize when a patient needs subspecialty referral

Interpersonal Communication Skills

- Communicate effectively and compassionately with patients
- Effectively communicate patients' needs to other providers
- Facilitate the functioning of a multidisciplinary team

Professionalism

- Interact with patients, colleagues and hospital staff in a respectful manner
- Maintain patient confidentiality and HIPAA guidelines

Practice-based Learning

- Be able to perform a literature search in order to answer clinical questions
- Be able to interpret laboratory and radiologic data
- Identify deficiencies in knowledge base and develop independent means to address them

Systems-based Practice

- Understand and participate in the use of guidelines for ENT care
- Understand appropriate referrals for ENT care

Neurosurgery

The goal of this rotation is to expose the first year resident to clinical management of diseases encountered in the practice of Neurosurgery.

Objectives

1. Perform neurological history and examination of patients at various levels of consciousness
Write admission, radiological, and preoperative orders under the direction of the supervising senior resident or attending neurosurgeon
2. Utilize appropriate diagnostic modalities and review preoperative diagnostic studies with the attending neurosurgeon
3. Begin to learn interpretation of neurological imaging studies such as cervical spine x-rays, head and spinal CT, and MRI
4. Assist during neurosurgical procedures, gaining exposure to and hands-on experience with:
 - a. Bone work: craniotomy, laminectomy
 - b. Neurosurgical hemostasis
 - c. Protection of neural tissues
 - d. Repair/replacement of dura and bone
5. Perform limited neurosurgical procedures under direction such as:
 - a. Diagnostic lumbar puncture
 - b. Insertion of ICP monitor
 - c. Repair of deep scalp lacerations
 - d. Elevation of simple depressed skull fracture
 - e. Application and management of skeletal traction by tongs or halo
6. Formulate appropriate postoperative care, including:
 - a. Address potential complications
 - b. Provide information/instructions to patient and family
 - c. Prepare a discharge plan
 - d. Plan adequate post hospital care

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the neurological surgery patient

- Be able to complete a comprehensive history and physical for a neurological surgery patient.
- Be able to do appropriate pre and postoperative care for a neurological surgery patient
- Be able to assess patients in various stages of consciousness

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the neurological surgery patient.

- Know basic anatomy of the brain, spinal cord, spinal column, peripheral nerves, and extra-cranial cerebrovascular system
- Have a basic understanding of radiologic diagnostic tests such as CT, MRI, PET scans and how to interpret their findings, in conjunction with the neurosurgery attendings, residents, and fellows, and associated radiologists

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common diseases encountered in the practice of Neurosurgery
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with neurosurgical diseases or injury
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills

- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Plastic and Reconstructive Surgery

The primary goal of this rotation is to expose the first year surgical resident to clinical management of diseases encountered in the practice of Plastic and Reconstructive Surgery. The rotation has been designed to enhance understanding of and skills related to wound management as well as to provide significant exposure to basic suturing and soft tissue techniques.

Objectives

1. Complete a comprehensive physical examination and clinical data history, including pertinent diagnostic laboratory and radiographic findings
2. Evaluate and treat simple and intermediate abrasions and burns of the face, trunk, and extremities
3. Perform simple incisional biopsies and excise small lesions on the skin and subcutaneous tissue of the trunk or extremities
4. Provide definitive treatment plans for superficial incised and lacerated wounds of the neck, trunk, and extremities
5. Participate in the perioperative evaluation and management of congenital or acquired defects (traumatic and surgical)
6. Apply and remove dressings of the head, neck, hand, trunk, and extremities, including:
 - a. Occlusive
 - b. Non-occlusive
 - c. Wet to dry
 - d. Casts
 - e. Alginate
 - f. Colloidal
7. Debride and suture major non-facial wounds and burns
8. Harvest and apply split-thickness skin grafts
9. Perform simple, localized skin flaps for wound coverage
10. Participate in the evaluation and formulation of treatment plans for:
 - a. Hand injuries
 - d. Facial fractures
11. Harvest and apply full-thickness skin grafts and local flaps
12. Raise muscle and skin-muscle flaps under direct supervision
13. Assess and act as first assistant for the following:
 - a. Fractures requiring operative and non-operative reduction
 - b. Nerve and tendon surgery
14. Act as first assistant for:
 - a. Reconstruction and reparative surgery of the hand
 - b. Surgical repair of facial trauma
 - c. Reconstruction of the breast
 - d. Complex wound reconstruction using flap both local, regional, and free microvascular
15. Monitor skin flap circulation for free flaps and pedicled flaps by clinical signs, Doppler and skin temperature

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the surgical plastic surgery patient

- Be able to complete a comprehensive history and physical for a plastic surgery patient.
- Be able to do appropriate pre and postoperative care for a patient with acquired or congenital defects requiring plastic surgery, including breast cancer reconstruction, burns, and trauma
- Be able to perform proficient suturing skills and simple biopsies

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the plastic surgery patient.

- Have a basic understanding of corrective or restoration treatment options performed by the plastic and reconstructive surgery service team
- Have a basic understanding
 - Evaluation of breast cancer patients regarding options for reconstruction.
 - Evaluation and treatment of pressure sores.
 - Principles of optimal wound closure, both primary and flap closure.
 - 9. Principles of management of skin and soft tissue pathology (i.e., melanoma).

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common diseases encountered in the practice of Plastic and Reconstructive Surgery

- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with plastic surgery service-related diseases or injury
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Trauma-Acute Care General Surgery and Critical Care

The primary goal of this rotation is to expose the R-1 to the clinical assessment and treatment of critically ill or injured patients in order to gain a strong foundation in the management of multi-system organ injury.

Objectives

1. Demonstrate skill in basic surgical techniques, including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Knowledge of instrumentation
 - d. Incisions
 - e. Closure of incisions
2. Provide initial evaluation and management of the critically ill preoperative patient.
3. Institute the following therapeutic interventions:
 - a. Manage fluid orders
 - b. Determine ventilator settings
 - c. Order pharmacologic support drugs
 - d. Determine the need for and duration of antibiotic therapy
4. Perform the following procedures:
 - a. Orotracheal and nasotracheal intubation, nasogastric and bladder intubation
 - b. Arterial catheter insertion
 - c. Central venous and pulmonary artery catheter insertion
 - d. Tube thoracostomy
 - e. Cricothyroidotomy
 - f. Pericardiocentesis
 - g. Thoracentesis
 - h. Paracentesis
 - i. Suture uncomplicated lacerations
 - j. Incision and drainage of abscesses
 - k. Cervical spine immobilization
5. Manage severe trauma patients:
 - a. Determine need for ventilation and select initial ventilator settings
 - b. Compute initial and ongoing fluid requirements
 - c. Establish intravenous access

- d. Analyze need for operative intervention
- e. Determine need for hospitalization post-operatively; for support care; or transfer to specialized centers of excellence (e.g. spinal cord center, reimplantation of traumatic amputations)
6. Manage septic patients:
 - a. Determine need for ventilation and select initial ventilator settings
 - b. Compute initial and ongoing fluid requirements
 - c. Establish intravenous access and maintain with appropriate sterile techniques
 - d. Analyze need for operative intervention
 - e. Determine need for ongoing ICU management
 - f. Identify appropriate antibiotic therapy distinguishing between prophylactic, empiric, and therapeutic uses
 - g. Monitor hemodynamic data
7. Initiate rehabilitation process after stabilization of injuries, including:
 - a. Attention to possible altered body habitus
 - b. Requirements for special devices (physical, occupational, or speech therapy)
 - c. Maintain nutritional status
 - d. Provide support, interaction, and information to the family

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the trauma service patient

- Be able to complete a comprehensive history and physical for a trauma service patient.
- Be able to do appropriate patient care management when working in the surgical intensive care unit
- Be able to perform proficiently work with other first hospital responders on the trauma team to effectively and expeditiously care for the incoming trauma patients

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the trauma service patient.

- Know a thorough knowledge of disease processes and traumatic injury which frequently affect critically ill trauma and surgical critical care patients
- Familiarity with various modes of mechanical ventilation, as well as learning techniques to improve gas exchange.
- Refined ability to interpret radiographic findings, EKGs, laboratory data, and intravascular and intra-cranial monitoring systems.
- Basic pharmacological principles of anesthesia
- Basic knowledge of the evaluation, resuscitation, treatment, and long-term effects of injuries to the major organ systems and body areas:

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background

- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common critical illnesses or injuries including the management of multi-system organ injury
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with trauma services needs
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Urology

The goal of the rotation is to expose interns to management of diseases encountered in the practice of urology

Objectives

Attitudes and Interpersonal Relationships

1. Understand the fears and anxieties of patients who have urologic disorders or who are scheduled to have urologic procedures or operations.
2. Be able to discuss the most common urologic procedures and conditions with patients and their families.
3. Understand the ethical and medical aspects of organ donation and transplantation.

Core Information

1. Learn history taking with emphasis on present and past urologic conditions.
2. Be adept at performing the physical examination with emphasis on the genitalia and digital rectal exam.
3. Understand the diagnosis and management of the following conditions:
 - a. Urolithiasis
 - b. Gross and microscopic hematuria
 - c. Trauma related to the urogenital tract
 - d. Acute, chronic and recurrent urogenital infections
 - e. Common neoplasms of the urogenital tract
 - f. Prostate hypertrophy/prostatitis
 - g. Common pediatric urologic disorders
 - h. Postoperative complications from GU surgery
 - i. Urinary incontinence
 - j. Brain death – organ donation
 - k. Male infertility
 - l. Sexual dysfunction
 - m. The acute scrotum
4. Understand the indications for and complications of renal transplantation.
5. Understand the various types of urinary tract catheters/tubes and indications for their use.

Procedures, Techniques and Examinations

1. The R-1 intern should be able to perform the following procedures under supervision:
 - a. Urethral catheterization of males and females, including coude-tipped catheters
 - b. Bladder irrigation
2. The R-1 intern should observe or assist in the following procedures:
 - a. Cystoscopy
 - b. Circumcision
 - c. Retrograde pyelography and insertion of ureteral stents
 - d. Ureteroscopy with litholotripsy
 - e. Hydrocelectomy
 - f. Prostatic needle biopsy
3. If the R-1 intern is unable to observe certain procedures (because of their infrequent occurrence), he/she should be familiar with them through discussion with housestaff and faculty. Such procedures are:
 - a. Bladder biopsies
 - b. Percutaneous nephrostomy/nephrolithotomy
 - c. ESWL
 - d. TURP
 - e. Radical prostatectomy, radical nephrectomy, radical cystectomy
 - f. Radical orchiectomy
 - g. Orchidopexy
4. Be able to interpret basic abnormalities in urologic diagnostic tests:
 - a. Urinalysis, urine culture
 1. Chemistry panel, PSA
 - b. Radiologic examinations of the urogenital tract (CT, MRI, VP, VCUG, RUG, RPG)
 - c. Renal ultrasound and renal scans
 - d. Bone scans
 - e. Scrotal scans

Attendance at Conferences and Teaching Rounds

1. The R-1 intern, unless involved with urgent direct patient care activities, is required to attend the following:
 - a. Daily Bedside Rounds
 - b. Outpatient Urology Clinics
 - c. Urology Grand Rounds
 - d. GU Tumor Board
 - e. Urology Quality Improvement Conference

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the urology patient.

- Understand the fundamental principles of common urological problems including renal, bladder and urethral trauma, renal stone disease, prostrate disease, urologic infections, renal and bladder cancers and testicular torsion and neoplasms

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the urology patient

- Develop expertise in the various techniques including (suprapubic) of bladder catheterization
- Ability to perform good quality IVP, cystogram and urethrogram for the evaluation trauma
- Ability to perform an adequate prostate, genitalia, and testicular exam
- Ability to perform bladder repair
- Perform an adequate prostate, genitalia, and testicular exam
- Capable of recognizing and treating phimosis
- Know how to perform a circumcision; recognize a testicular torsion

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service

- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common urological diseases
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with diseases and injuries treatable by the urology service
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients

Vascular Surgery

The goal of the Vascular Surgery rotation is to enhance the R-1's understanding of and skills relating to the management of patients with vascular disease.

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the vascular surgery patient

- Develop expertise in performing preoperative assessment and postoperative care of patients undergoing vascular surgical procedures
- Learn and understand the indications in which vascular diseases are managed by non-surgical means as well as open versus minimally invasive surgical intervention
- Ability to perform a good vascular exam of upper and lower extremities

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the vascular surgery patient.

- Understand the fundamental principles vascular and arterial disease and minimally invasive techniques which offer an immediate advantage over more traditional, yet highly invasive surgeries
- Understand the disease processes related to cerebrovascular disease, upper and lower extremity occlusive diseases, aneurysms, vascular trauma, angio access, and venous disease

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients

- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common vascular diseases
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students
- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with vascular surgery diseases
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Competency-based Objectives for Rotations in General Surgery

Objectives

1. Demonstrate skill in basic surgical techniques, including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Knowledge of instrumentation
 - d. Incisions
 - e. Closure of incisions
 - f. Handling of graft material
2. Screen and evaluate patients for vascular disease

3. Perform the preoperative assessment and postoperative care of patients undergoing major vascular surgical procedures such as, detailed vascular examination and use of Doppler in vascular assessment
4. Participate in surgery for varicose vein disease, including:
 - a. Ligation and stripping
 - b. Manage venous stasis ulcers
 - c. Manage venous thrombosis
5. Participate in amputations with specific attention to:
 - a. Demarcation levels
 - b. Control of toxicity
6. Demonstrate proficiency in venous access procedures
7. Demonstrate the ability to perform arterial access or arteriovenous access, including:
 - a. Incisions
 - b. Closure of incision
8. Participate in thromboendarterectomy and thrombectomy
9. Demonstrate appropriate vascular suture techniques

Patient Care

- Plans a diagnostic and therapeutic program for severely ill surgical patients
- performs an appropriate focused surgical history and physical examination on patients with severe and acute surgical disorders
- Performs and documents the procedures likely to be encountered in taking care of surgical patients under appropriate supervision
- Writes appropriate orders and plans for acutely ill surgical patients

Medical Knowledge

- Appropriate knowledge of pathophysiology, diagnosis, and management of acute surgical problems
- Can explain indications for and complications of commonly used diagnostic tests and medical therapies in surgical patients
- Demonstrates awareness of areas of needed improvement in surgery knowledge
- Can explain indications and complications of surgical therapy, including bleeding, re-operation, infection, decompensation and death.

Practice-Based Learning and Improvement

- Shows appropriate use of consultation with medical and non-medical services, including special diagnostic studies
- Uses evidence from the medical literature to answer clinical questions
- Identifies areas for potential improvement in personal delivery of care
- Maintains a positive attitude towards learning, including attendance and participation on patient rounds and conferences, and evidence of reading or other methods of gaining knowledge
- Participates actively in teaching others, including students, residents, and faculty

Interpersonal and Communications Skills

- Presents a patient effectively and efficiently, avoiding jargon, and concisely summarizing pertinent information and plans
- Communicates with patients and concerned others effectively
- Writes accurate, complete, and legible entries in the medical record
- Works constructively as part of a team

- Exchanges information effectively and efficiently during rounds that reflects surgical issues and problems, current therapeutic plans, and expected complications and issues
- Understands the impact of severe surgical illness on patient and family, including medical ethical decision-making

Professionalism

- Focuses on issues of appropriate and adequate pain management
- Recognizes the importance of a patient's cultural, language, or family background and support
- Recognizes important end of life issues, including decision-making and forgoing of care
- Demonstrates respect and compassion for patients, including issues of informed consent
- Consistently interacts with other health care workers in a professional manner

Systems-Based Practice

- Appreciates the relationships between different levels of inpatient care, including general wards, progressive care, and surgical care.
- Understands basic information about cost-effectiveness care in the surgical and knows where to seek further information
- Demonstrates awareness of the outcomes of surgical care

R-2 OVERVIEW

The second year resident rotates on all of the General Surgery Services at Harbor-UCLA Medical Center (GI/Oncology, Vascular, Colorectal Surgery, Endovascular, and the Trauma and Critical Care Services). In addition, the R2 will rotate through the surgical sub-specialties of Cardiothoracic Surgery and Pediatric Surgery/Breast at Harbor-UCLA. Outside rotations at the affiliates include; Liver Transplantation at UCLA Medical Center, Burn Management at USC Medical Center, and Pediatric Surgery at the Children's Hospital, Los Angeles. The junior resident is responsible for day-to-day care of surgical patients on their assigned service, and is responsible for the Intensive Care Unit patients when rotating on the Trauma Service. R-2 residents are supervised at all times by residents that are more senior and by faculty. The major goal of the second year training is to introduce the resident to critical care, and to allow graded responsibility for patient care. Additional instruction in pre- and postoperative care is also an important part of the academic year, including an emphasis on nutritional and metabolic management. The R-2 will gain additional valuable experience in the operating room both as an assistant and as the primary surgeon on uncomplicated minor surgeries. Finally, extensive experience in gastrointestinal endoscopy is a major focus during the rotation on the Colon and Rectal Surgery Service.

R-2 OVERALL GOALS

1. To encourage the development of responsibility and independence
2. Development of mature clinical judgment
3. Development of supervisory responsibilities
4. Gain expertise in critical care management

R-2 ROTATION LEARNING OBJECTIVES

USC - Burn Management

The primary goal of this rotation is to expose the second year surgical resident to the burn patient, and to the subsequent critically ill patients on this service.

Objectives

1. Complete a comprehensive physical examination and clinical data on the burn patient
2. Understand the "rule of nines," and be able to recognize severity and depth of burns as well as assess the patient for inhalation injury
3. Evaluate and treat simple 1st and 2nd degree limited burns involving the trunk and non-circumferential extremities
4. Participate in the perioperative evaluation and management of patients with extensive 2nd and 3rd degree burns and/or circumferential extremity burns
5. Participate in the evaluation and management of patients with severe inhalation injuries
6. Apply and remove dressings on burn wounds in all locations
7. Understand the principles of and perform minor debridement of limited 2nd and 3rd degree burns to non-vital areas
8. Participate in surgical management of the critically ill burn patient including transport to and from the burn unit and management of postoperative dressings
9. Harvest and apply skin grafts
10. Understand the value and use of alternative skin coverage for severely burned patients
11. Understand airway and ventilator management and participate in surgical tracheostomies

Patient Care

The intern will provide patient care that is compassionate, appropriate and effective for the treatment of the surgical plastic surgery patient

- Be able to complete a comprehensive history and physical for a plastic surgery patient.
- Be able to do appropriate pre and postoperative care for a patient with acquired or congenital defects requiring plastic surgery, including breast cancer reconstruction, burns, and trauma
- Be able to perform proficient suturing skills and simple biopsies

Medical Knowledge

The intern will achieve detailed knowledge of the evaluation and management of the plastic surgery/burns patient.

- Resident will gain knowledge of diagnosis, treatment options (surgical/non-surgical), long-term prognosis, post-operative effects, complications, patient risk and cost considerations associated with: treatment of burns and frostbite
- Have a basic understanding of corrective or restoration treatment options performed by the plastic and reconstructive surgery, burns division service team

Interpersonal and Communication Skills

The intern will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Learn to gather essential information from patients, and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient

Professionalism

The intern will demonstrate a commitment to carrying out professional responsibilities adherence to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

- Relate as a team member with other residents and fellows from other departments
- Relate with all patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems

Practice-based Learning

The intern will investigate and evaluate his or her own patient care practices appraise and assimilate scientific evidence and improve patient care practices.

- Remain current on medical literature as it relates to common burns and treatments including the subsequent critically ill patients
- Be familiar with online medical databases
- Teach, guide and be a role model for medical students

- Acquire skills in resource management
- Participate in didactic sessions/presentations

Systems-based Practice

The intern will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

- Integrate closely with the total team of medical students, residents, and attending, caring for patients with plastic surgery service, burns division-related diseases or injury
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients and how limited indigent care resources can be efficiently utilized

Cardiothoracic Surgery

The goal of this rotation is to expose the second year resident to clinical management of the patient on the Cardiothoracic Surgery Service including patients with coronary artery disease, congenital defects, cardiomyopathy, and penetrating cardiothoracic trauma. Additionally management of the patient with thoracic neuroplasms will play an important role.

Objectives

1. Perform appropriate cardiovascular history and examination of the patient
2. Manage the cardiothoracic patient pre and post-operatively in the coronary care unit
3. Liaison with the cardiology team and understand the indications for the use of various cardiac imaging and assessment tests
4. Assist during cardiothoracic surgery procedures with particular emphasis on saphenous vein identification and harvest, and manage lower extremity wounds
5. Perform limited cardiothoracic procedures including pericardiocentesis; manage of pacing wires, thoracostomy tubes, endotracheal tubes, and tracheostomies
6. Assist in thoracic surgery cases including evacuation of hemothoraces, clotted hemothoraces, and resection of thoracic tumors
7. Formulate appropriate postoperative care including both critical care and ward management
8. Understand need for cardiac rehab and act as the liaison between the primary medical team and family and care givers to formulate a discharge plan and prepare for adequate postoperative care

Should there be competencies listed here?

GI/Surgical Oncology

The goal of the GI/Surgical Oncology rotation is to provide the R-2 appropriate experience pertaining to the clinical management of upper gastrointestinal disorders as well as soft tissue tumors and breast problems. The second year resident will gain a large experience in the evaluation and management of diseases of the breast including, but not limited to, malignancies.

Objectives

1. Demonstrate additional evolution of basic surgical techniques, including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Incision selection and conduct
 - d. Instrument familiarity
 - e. Wound management
2. Consult and evaluate patients in the Emergency Department or specialty clinics

3. Gain confidence as assistant surgeon during operations of the upper gastrointestinal tract, liver, biliary tract and pancreas as well as breast
4. Perform less complicated surgical procedures with supervision including: appendectomy, gastrostomy, breast biopsy, mastectomy, and lymph node biopsy
5. Understand and be responsible for management of:
 - a. Nasogastric tubes
 - b. Intra-abdominal and pelvic drains
 - c. Abdominal incisions
 - d. Complicated intestinal fistulas and enteric tubes
6. Evaluate and manage nutritional needs both pre- and postoperatively
7. Provide follow-up care to the surgical patient in the outpatient clinic
8. Understand the various tumor staging systems and be able to utilize these systems in management of patients
9. Understand and be competent in the appropriate usage of tumor markers, imaging studies, and basic cytohistologic techniques
10. Understand the value of fine needle aspiration, core needle biopsy, and incisional and excisional biopsies
11. Understand the currently recognized familial/genetic cancer syndromes and the value and utility of genetic screening for various cancers

UCLA - Liver Transplantation

The goal of this rotation is to expose the R-2 resident to management of the patient with liver failure and subsequent transplant management including management of immunosuppression both for the acute post-transplantation patient as well as the chronic post-transplant patient.

Objectives

1. Demonstrate skill in critical care management and immunosuppressive medications
2. Understand the various support for the patient with liver failure including use of blood and blood products
3. Gain comfort and confidence in management of various abdominal tubes and drains in the post liver transplant patient,
4. and understand and gain confidence and competence in evaluation of liver function based on clinical status and laboratory evaluation
5. Understand and utilize various imaging modalities to assess the pre" and post liver transplant patient

Pediatric Surgery / Breast Surgery

The goal of the breast component in this rotation is to provide the R2 with experience related to the management of breast diseases.

Objectives: Pediatric Surgery

1. Demonstrate skill in the diagnosis, evaluation, and surgery of pediatric patients, including but limited to:
 - a. Trauma
 - b. Branchiogenic anomalies
 - c. Pectus excavatum and carinatum
 - d. Emergency respiratory diseases of the newborn
 - e. Congenital diaphragmatic hernia
 - f. Congenital esophageal anomalies
 - g. Hypertrophic pyloric stenosis

- h. Atresia, stenosis and other intestinal obstruction
 - i. Malrotation
 - j. Meconium ileus
 - k. Necrotizing enterocolitis
 - l. Hirschsprung's disease
 - m. Meconium plug syndrome
 - n. Intussusception
 - o. Duplications of the gastrointestinal tract
 - p. Anorectal anomalies
 - q. Liver and biliary tract disorders (e.g. biliary atresia)
 - r. Abdominal wall hernias and defects (e.g. omphalocele)
 - s. Tumors of childhood
 - t. Child abuse
 - u. Pediatric appendicitis and Meckel's diverticulitis
2. Demonstrate the need for diagnostic modalities:
 - a. Laboratory studies
 - b. Radiographic studies including contrast and CT studies
 - c. Ultrasound (especially rectal ultrasound)
 - d. Endoscopy
 - e. Biopsy
 - f. Laparoscopy
 3. Preoperative management:
 - a. Medical evaluation
 - b. Nutritional management
 - c. Evaluation of biopsy results
 - d. Determining the need for and obtaining consultations
 - e. Attend and present at appropriate conferences
 4. Postoperative management:
 - a. Critical care phase (as needed)
 - b. Manage fluids and electrolytes
 - c. Wound care
 - d. Nutritional support
 - e. Stoma care
 - f. Review and evaluation of pathology results
 - g. Consultation with other services
 - h. Manage tubes and drains
 - i. Discussion of patients at appropriate conferences and meetings

Objectives: Breast

1. Demonstrate knowledge of clinical presentation to be able to articulate the management of clinical problems including:
 - a. Palpable mass
 - b. Abnormal mammogram
 - c. Nipple discharge
 - d. Breast pain
 - e. Breast cancer
2. Demonstrate knowledge in the selection and interpretation of diagnostic studies such as:
 - a. Breast ultrasound
 - b. Mammography.
3. Demonstrate knowledge in the selection and interpretation of biopsy procedures such as:

- a. Open biopsy
- b. Needle aspiration cytology
- c. CORE biopsy

Children's Hospital Los Angeles - Pediatric Surgery

During the R-2 Pediatric Surgery rotation, the resident will have responsibility for the surgical care of pediatric patients, including neonatal through adolescent. Under supervision, the resident will typically perform pre- and postoperative evaluations.

Objectives

1. Demonstrate skill in the diagnosis, evaluation, and surgery of pediatric patients.
2. Demonstrate the need for diagnostic modalities
3. Preoperative management, i.e., medical evaluation, nutritional management, evaluation of biopsy results, determining the need for and obtaining consultations and, attend and present at appropriate conferences
4. Postoperative management

Trauma Acute Care Surgery and Critical Care

The primary goal of this rotation is to expose the R-2 to the care and management of critical care patients in the Intensive Care Units. Additionally, this Service affords the resident an opportunity to gain independent operative experience in simple cases (abscess drainage and appendectomies).

Objectives

1. Demonstrate additional evolution of basic surgical techniques including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Incision selection and conduct
 - d. Instrument familiarity
 - e. Wound management
2. Develop confidence in management of critically ill patients
3. Become comfortable with independent management of:
 - a. Electrolyte orders
 - b. Parenteral and enteral alimentation
 - c. Ventilator management
 - d. Familiarity of management of cardiac and vasopressor drugs
 - e. Comfort with selection and appropriate utilization of antibiotics
4. Perform the following procedures:
 - a. Perform orotracheal and nasotracheal intubation
 - b. Arterial catheter insertion
 - c. Central venous and pulmonary catheter insertion
 - d. Tube thoracostomy
 - e. Tracheostomy
 - f. Pericardiocentesis
 - g. Esophageal gastroduodenoscopy
 - h. Measurement of compartment pressures in lower extremities
5. Manage severe trauma patients
 - a. Determine need for respiratory support and ventilator management
 - b. Manage intake and output on a regular and ongoing basis
 - c. Establish central intravenous access
 - d. Evaluate the pre-and post-surgical abdomen

- e. Familiarity with triage mechanisms
- f. Determine appropriateness of patient location with special attention to transfer of patients into and out of critical care and step-down units
6. Manage sepsis
 - a. Manage ventilator and fluids
 - b. Understand need for monitoring venous access and arterial access sites
 - c. Assess need for intervention in septic patients
 - d. Determine appropriateness of patient location including need for ICU versus step-down unit management
 - e. Determine appropriate antibiotic therapy
 - f. Determine appropriate necessity for consultation of specialty services
 - g. Monitor hemodynamic data and react appropriately
 - h. Gain comfort and confidence in evaluating CT scans and other imaging tests

Vascular Surgery

The goal of the Vascular Surgery rotation is to enhance the R-2's understanding of and skill related to the management of patients with vascular disease, with a particular emphasis on vascular access for renal failure patients.

Objectives

1. Demonstrate additional evolution of basic surgical techniques including:
 - a. Suturing and knot tying
 - b. Exposure and retraction
 - c. Incision selection and conduct
 - d. Instrument familiarity
 - e. Wound management
2. Screen and evaluate patients for peripheral vascular disease, cerebral vascular disease, and mesenteric vascular disease
3. Oversee preoperative assessment and postoperative care of patients undergoing major vascular surgical procedures including endovascular procedures
4. Participate directly in surgery for varicose vein disease, venous access surgery, and amputations
5. Assist in thromboendarterectomy, thrombectomy and endarterectomy procedures
6. Assist in complex vascular reconstructions and endovascular procedures and understand selection and application of various options
7. Become proficient in evaluation and interpretation of vascular imaging modalities
8. Develop competence in appropriate vascular suture techniques

Competency-based Objectives for Rotations in General Surgery

Patient Care

- Plans a diagnostic and therapeutic program for severely ill surgical patients
- Performs an appropriate focused surgical history and physical examination on patients with severe and acute surgical disorders
- Performs and documents the procedures likely to be encountered in taking care of surgical patients under appropriate supervision
- Writes appropriate orders and plans for acutely ill surgical patients

Medical Knowledge

- Appropriate knowledge of pathophysiology, diagnosis, and management of acute surgical problems
- Can explain indications for and complications of commonly used diagnostic tests and medical therapies in surgical patients
- Demonstrates awareness of areas of needed improvement in surgery knowledge
- Can explain indications and complications of surgical therapy, including bleeding, re-operation, infection, decompensation and death.

Practice-Based Learning and Improvement

- Shows appropriate use of consultation with medical and non-medical services, including special diagnostic studies
- Uses evidence from the medical literature to answer clinical questions
- Identifies areas for potential improvement in personal delivery of care
- Maintains a positive attitude towards learning, including attendance and participation on patient rounds and conferences, and evidence of reading or other methods of gaining knowledge
- Participates actively in teaching others, including students, residents, and faculty

Interpersonal and Communications Skills

- Presents a patient effectively and efficiently, avoiding jargon, and concisely summarizing pertinent information and plans
- Communicates with patients and concerned others effectively
- Writes accurate, complete, and legible entries in the medical record
- Works constructively as part of a team
- Exchanges information effectively and efficiently during rounds that reflects surgical issues and problems, current therapeutic plans, and expected complications and issues
- Understands the impact of severe surgical illness on patient and family, including medical ethical decision-making

Professionalism

- Focuses on issues of appropriate and adequate pain management
- Recognizes the importance of a patient's cultural, language, or family background and support
- Recognizes important end of life issues, including decision-making and forgoing of care
- Demonstrates respect and compassion for patients, including issues of informed consent
- Consistently interacts with other health care workers in a professional manner

Systems-Based Practice

- Appreciates the relationships between different levels of inpatient care, including general wards, progressive care, and surgical care.
- Understands basic information about cost-effectiveness care in the surgical and knows where to seek further information
- Demonstrates awareness of the outcomes of surgical care

R-3 OVERVIEW

The third year resident rotates on General Surgery Services both at the Harbor-UCLA Medical Center and at an affiliate institution, Kaiser Permanente in Harbor City. The third year is divided into five blocks. All rotations center on areas within General Surgery, including Trauma and Critical Care, Breast, Vascular, and Colorectal. Senior housestaff and faculty are responsible for the direct supervision of the junior resident. The principal focus of the year is to learn the direct management of patients, plan and execute surgical procedures, and provide postoperative care. During the operative phase, senior housestaff and faculty assist the junior resident. This provides a diverse and enriched learning environment, allowing the resident to grow and achieve limited independence with knowledge that assistance is immediately available.

R-3 OVERALL GOALS

1. Critically evaluate patients and develop differential diagnosis
2. Gain skill in the choice of appropriate diagnostic procedures
3. Arrange for appropriate consultations and preoperative studies
4. Gain experience with surgical procedures
5. Gain limited independence in the performance of basic surgery
6. Supervise more junior housestaff in the day-to-day care of patients
7. Care for critically ill patients, both pre- and postoperatively

R-3 ROTATION LEARNING OBJECTIVES

Breast

Objectives

1. Know the anatomy of the breast
2. Diagnose breast abnormalities, and perform various biopsy techniques including, needle aspiration, core biopsy, and excisional biopsy
3. Recognize abnormal breast mammogram, and propose a method of diagnosis (under ultrasound, stereotactic or needle guided biopsy)
4. Recognize breast pathology
5. Recognize benign breast disease, estimate the risk for development of breast cancer, diagnose breast cancer, and estimate prognosis based on pathologic criteria
6. Know breast cancer biology as well as staging and results of various therapies
7. Be able to independently discuss and counsel patients about management options of breast cancer, propose a treatment plan that incorporates multidisciplinary management, perform management of the primary tumor by breast conservation or mastectomy, and perform Sentinel Node Biopsy or Axillary Lymph Node dissection

Colon and Rectal Surgery

During this rotation, the R-3 resident will gain experience in the diagnosis, operative and postoperative management of hindgut pathology. A critical portion of this experience is attending-guided colonoscopy. During these procedures, the R-3 has the opportunity to discuss findings directly with the attending surgeon. This valuable experience not only teaches the junior resident how to perform and evaluate hindgut endoscopic procedures, but also facilitates direct attending contact and exchange of information. The R-3 also participates in the Colon and Rectal Clinic and performs consultation to both surgical and nonsurgical services.

Objectives

1. Demonstrate skill in the diagnosis of surgical hindgut pathology, including but not limited to:
 - a. Hindgut tumors (both benign and malignant)
 - b. Diverticulosis
 - c. Diverticulitis
 - d. Rectal prolapse
 - e. Fissure-in-ano
 - f. Anal fistula
 - g. Hemorrhoids
 - h. Inflammatory bowel disease
 - i. Incontinence
 - j. Rectal stricture
 - k. Ischemic bowel
 - l. Lower gastrointestinal hemorrhage
 - m. Perirectal abscess
2. Demonstrate the need for diagnostic modalities:
 - a. Laboratory studies
 - b. Radiographic studies including contrast and CT studies
 - c. Ultrasound (especially rectal ultrasound)
 - d. Endoscopy (colonoscopy and its variants)
 - e. Biopsy
 - f. Laparoscopy
3. Preoperative management:
 - a. Medical evaluation
 - b. Nutritional management
 - c. Evaluation of biopsy results
 - d. Determining the need for and obtaining medical consultations
 - e. Attend and present at appropriate conferences (GI Conference and Tumor Board)
4. Operative management including, but not limited to:
 - a. Operative endoscopy
 - b. Surgical management of hemorrhoids
 - c. Drainage of perirectal abscess
 - d. Fistulotomy
 - e. Simple colon resection (assistant resident surgeon)
 - f. Low anterior resection (assistant resident surgeon)
 - g. Abdominoperineal resection (assistant resident surgeon)
 - h. Creation of stomas
 - i. Takedown of stomas and reanastomosis
 - j. Complex laparoscopic procedures (assistant resident surgeon)
5. postoperative management:
 - a. Critical care phase (as needed)
 - b. Manage fluids and electrolytes
 - c. Wound care
 - d. Nutritional support
 - e. Stoma care
 - f. Review and evaluation of pathology results
 - g. Consultation with other services
 - h. Manage tubes and drains
 - i. Discussion of patients at appropriate conferences and meetings.

Kaiser Permanente - General Surgery

The third year resident rotates for experience in the management of general surgical and vascular diseases. The resident is given responsibility for the evaluation, diagnosis, and management of a large number of surgical diseases. This begins in both the clinics and the emergency room, continues through the in-hospital phase, and terminates in follow-up visits. The rotation provides a community experience which helps orient the resident to other health care models.

Objectives

1. During the rotation, the resident will be responsible for the evaluation, diagnosis, and surgery of:
 - a. Chronic vascular disease, primarily atherosclerotic
 - b. Cerebrovascular disease
 - c. Diseases of the esophagus
 - d. Peptic ulcer disease
 - e. Tumor of the stomach
 - f. Hepatobiliary disease
 - g. Pancreatic disease including malignancy
 - h. Appendicitis
 - i. Cancer of the colon
 - j. Inflammatory bowel disease
 - k. Diverticulitis
 - l. Anorectal pathology
 - m. Breast disease
 - n. Endocrinopathies
2. Demonstrate the need for diagnostic modalities:
 - a. Laboratory studies
 - b. Radiographic studies including contrast and CT studies
 - c. Ultrasound (especially rectal ultrasound)
 - d. Endoscopy
 - e. Biopsy
 - f. Laparoscopy
 - g. Angiography
 - h. Duplex ultrasound
3. Preoperative management:
 - a. Medical evaluation
 - b. Nutritional management
 - c. Evaluation of biopsy results
 - d. Determining the need for and obtaining consultations
 - e. Attend and present at appropriate conferences
4. Postoperative management:
 - a. Critical care phase (as needed)
 - b. Manage fluids and electrolytes
 - c. Wound care
 - d. Nutritional support
 - e. Stoma care
 - f. Review and evaluation of pathology results
 - g. Consultation with other services
 - h. Manage tubes and drains
 - i. Discussion of patients at appropriate conferences and meetings.

Trauma Acute Care Surgery and Critical Care

The primary goal of this rotation is to permit the third year surgical resident limited independence in the initial evaluation and subsequent management of injured and acutely ill patients. In example, the R-3 serves as the primary consultant to the Emergency Department as well as to other nonsurgical inpatient services. The R-3's initial evaluation is reviewed by the Chief Trauma Resident and/or by the attending Trauma surgeon. As such, immediate feedback is provided to help the junior resident master diagnostic and planning skills. The other principal function of the R-3 is to respond to all trauma alerts, and to function as part of the resuscitation and operative team. These latter responsibilities are performed under the direct supervision of a Chief Resident and an attending surgeon.

Objectives

1. Demonstrate skill in the diagnosis of acute surgical disease including:
 - a. Biliary tract and liver pathology
 - b. Acute abdomen (e.g. perforated viscus)
 - c. Soft tissue infection
 - d. Vascular pathology (e.g. venous stasis ulcers and acute ischemia)
 - e. Manage major lacerations
 - f. Resuscitation of trauma victims
2. Determine need for diagnostic modalities including:
 - a. Laboratory studies
 - b. Radiographic studies including CT and MRI scans, and angiography
 - c. Ultrasound including FAST (trauma)
 - d. Laparoscopy
 - e. Endoscopy
3. Resuscitation and Preoperative management
 - a. ATLS protocols for the injured patient
 - b. Acute resuscitation including airway and fluid management
 - c. Fluid and electrolyte resuscitation of the acutely ill
 - d. Hemodynamic assessment including central hemodynamic monitoring
 - e. Use of cardiac and circulatory pharmacologic agents
 - f. Placement of tube thoracostomy
 - g. Placement of invasive catheters for fluid resuscitation
 - h. Perform pericardiocentesis
4. Operative management
 - a. Appendectomy
 - b. Cholecystectomy (both laparoscopic and open)
 - c. Incision and drainage of abscesses
 - d. Examination under anesthesia
 - e. Fasciotomy
 - f. Laparotomy for acute abdomen (assistant surgeon)
 - g. Laparotomy for trauma (assistant surgeon)
 - h. Thoracotomy (assistant surgeon)
5. Postoperative management
 - a. Critical care phase including:
 - i. Use of pressors
 - ii. Use of invasive hemodynamic monitors
 - iii. Manage hypotension
 - iv. Manage postoperative bleeding
 - v. Diagnose and manage pulmonary embolism

- vi. Ventilatory management
- vii. Diagnose and manage postoperative infection
- viii. Postoperative fluid management
- ix. Nutritional access
- b. Routine postoperative fluid and electrolyte management
- c. Nutritional support
- d. Wound management
- e. Discharge planning
- f. Diagnosis and management of postoperative complications
- g. Medical record management

Vascular Surgery

The goal of the R-3's rotation on the Vascular Surgery Service is to acquaint them with the diagnosis and management of vascular disease, including the endovascular approach to aneurysmal atherosclerosis. The R-3 participates in the Vascular Clinic and performs consultation to both surgical and nonsurgical services.

Objectives

1. Demonstrate skill in the diagnosis and management of vascular disease, including, but limited to:
 - a. Acute limb ischemia
 - b. Chronic limb ischemia
 - c. Aneurysmal disease
 - d. Cerebrovascular disease
 - e. Diabetic vascular disease
 - f. Non-atherosclerotic vascular disease (e.g. Marfan's syndrome)
 - g. Lymphatic disease
 - h. Venous stasis and its complications
2. Determine the need for diagnostic modalities including:
 - a. Duplex ultrasonography
 - b. Ankle-brachial indices
 - c. Helical and axial CT scans
 - d. Angiography
 - e. Venography
 - f. Pulmonary angiography
 - g. Intravascular ultrasound
 - h. Magnetic resonance angiography
 - i. Lymphangiography
3. Preoperative management, including:
 - a. Medical assessment
 - b. Control of diabetes
 - c. Cardiovascular assessment
 - d. Respiratory assessment
 - e. Reduction of risk factors
 - f. Obtaining appropriate consultations
 - g. Attend and present at vascular conference
4. Operative management
 - a. Amputation (digital, metatarsal, ankle, below knee)
 - b. Incision and drainage of abscesses
 - c. Aneurysmorrhaphy (assistant resident surgeon)

- d. Femoropopliteal bypass (assistant resident surgeon)
 - e. Axillofemoral bypass (assistant resident surgeon)
 - f. Femorofemoral bypass (assistant resident surgeon)
 - g. Femoro-distal bypass (assistant resident surgeon)
 - h. Carotid endarterectomy (assistant resident surgeon)
 - i. Endovascular procedures (assistant resident surgeon)
5. Postoperative management
- a. Critical care phase
 - b. Routine postoperative fluid and electrolyte management
 - c. Wound management
 - d. Diagnosis and management of vascular and nonvascular postoperative complications
 - e. Nutritional support
 - f. Discharge planning
 - g. Medical record management

Competency-based Objectives for Rotations in General Surgery

Patient Care

- Plans a diagnostic and therapeutic program for severely ill surgical patients
- Performs an appropriate focused surgical history and physical examination on patients with severe and acute surgical disorders
- Performs and documents the procedures likely to be encountered in taking care of surgical patients under appropriate supervision
- Writes appropriate orders and plans for acutely ill surgical patients

Medical Knowledge

- Appropriate knowledge of pathophysiology, diagnosis, and management of acute surgical problems
- Can explain indications for and complications of commonly used diagnostic tests and medical therapies in surgical patients
- Demonstrates awareness of areas of needed improvement in surgery knowledge
- Can explain indications and complications of surgical therapy, including bleeding, re-operation, infection, decompensation and death.

Practice-Based Learning and Improvement

- Shows appropriate use of consultation with medical and non-medical services, including special diagnostic studies
- Uses evidence from the medical literature to answer clinical questions
- Identifies areas for potential improvement in personal delivery of care
- Maintains a positive attitude towards learning, including attendance and participation on patient rounds and conferences, and evidence of reading or other methods of gaining knowledge
- Participates actively in teaching others, including students, residents, and faculty

Interpersonal and Communications Skills

- Presents a patient effectively and efficiently, avoiding jargon, and concisely summarizing pertinent information and plans
- Communicates with patients and concerned others effectively
- Writes accurate, complete, and legible entries in the medical record
- Works constructively as part of a team

- Exchanges information effectively and efficiently during rounds that reflects surgical issues and problems, current therapeutic plans, and expected complications and issues
- Understands the impact of severe surgical illness on patient and family, including medical ethical decision-making

Professionalism

- Focuses on issues of appropriate and adequate pain management
- Recognizes the importance of a patient's cultural, language, or family background and support
- Recognizes important end of life issues, including decision-making and forgoing of care
- Demonstrates respect and compassion for patients, including issues of informed consent
- Consistently interacts with other health care workers in a professional manner

Systems-Based Practice

- Appreciates the relationships between different levels of inpatient care, including general wards, progressive care, and surgical care.
- Understands basic information about cost-effectiveness care in the surgical and knows where to seek further information
- Demonstrates awareness of the outcomes of surgical care

R-4 OVERVIEW

The fourth year resident rotates on General Surgery Services both at the Harbor-UCLA Medical Center and at an affiliate institution, Kaiser Foundation Permanente located in Harbor City, CA. The fourth year is divided into four rotations. Rotations include areas within General Surgery including, Trauma, Vascular and Cardiothoracic Surgery. Senior, Chief Residents, and faculty are responsible for the direct supervision of junior residents. The principal focus of this year is to develop a higher level of responsibility in the direct management of patients, planning and executing preoperative care, surgical procedures, and resolving postoperative complications. During all phases of clinical care, either a Chief Resident and/or faculty are immediately available to assist the fourth year resident. Consequently, the R-4 is provided an environment of growth and semi-limited independence.

R4 OVERALL GOALS

1. Critically evaluate patients and develop differential diagnosis
2. Gain skill in the choice of appropriate diagnostic procedures
3. Arrange for appropriate consultations and preoperative studies
4. Gain experience with surgical procedures
5. Gain independence in the performance of basic surgery
6. Supervise more junior housestaff in the day-to-day care of patients
7. Care for critically ill patients, both pre- and postoperatively

R-4 ROTATION LEARNING OBJECTIVES

Cardiothoracic Surgery

The goal of the Cardiothoracic rotation is to provide the R-4 with experience related to the management of cardiac as well as thoracic surgical pathology. On this rotation, the R-4 performs in the role of "Chief Resident." The Cardiothoracic Service exposes the resident to a broad spectrum of cardiac disease with particular emphasis on coronary artery disease, and critical pre- and postoperative patient care. During this rotation, the R-4 is the assistant resident surgeon for open heart surgery and chest surgery under the direct supervision of an attending surgeon. The fourth year resident is in charge of the outpatient clinic for cardiac and thoracic patients. Finally, the R-4 will supervise consultations to both surgical and nonsurgical services.

Objectives

1. Demonstrate increased skill in the diagnosis of (but not limited to):
 - a. Coronary artery disease
 - b. Congenital Cardiac Diseases
 - c. Diaphragmatic hernia
 - d. Lung neoplasm (benign and malignant)
 - e. Pneumothorax
 - f. Pleural disease, both benign and malignant
2. Determine need for diagnostic modalities, including:
 - a. Laboratory studies
 - b. Radiographic studies including CT scan
 - c. Ultrasound
 - d. Isotope scanning
 - e. Thoracoscopy

- f. Magnetic resonance imaging
- g. Bronchoscopy
3. Preoperative management including, but limited to:
 - a. Medical evaluation
 - b. Nutritional management
 - c. Pharmacologic manipulation
 - d. Evaluation of biopsy results
 - e. Determine the need for and obtaining medical consultations
 - f. Attend and present at appropriate conferences and multidisciplinary discussions (e.g., Pulmonary Conference and Surgical Morbidity/Mortality Conference)
4. Operative management including, but not limited to
 - a. Biopsy
 - b. Lung segmental resection (under direct attending supervision)
 - c. Endoscopic, thoracoscopic definitive management of appropriate lesions (e.g., foreign body)
 - d. Surgical management of pneumothorax (assistant resident surgeon)
 - e. Esophagectomy (assistant resident surgeon)
 - f. Surgical management of lung cancer (assistant resident surgeon)
5. Postoperative management:
 - a. Critical care phase (as needed)
 - b. Manage fluids and electrolytes
 - c. Wound care
 - d. Nutritional support
 - e. Review and evaluation of pathology results
 - f. Rehabilitation consults as needed
 - g. Consultation with other services (e.g., plastic surgery)
 - h. Manage tubes, drains, and fistulas
 - i. Discussion of patients at appropriate conferences
6. Supervise the junior residents in the management of all postoperative open heart cases in the cardiothoracic surgery unit.
7. Supervise the junior residents on the management of patients on the wards.
8. Demonstrate skill in critical care management and be comfortable with the use of different pharmacologic and mechanical cardiac support devices.
9. Be able to recognize and manage all potential complications, under supervision.
10. Perform all thoracic surgery procedures, under supervision, including median sternotomy, thoracotomies for cancer, infection or trauma, thoracoscopic surgery, mediastinoscopy and bronchoscopy.
11. Perform some simple open heart operations under direct supervision.
12. Be a first assistant on all open heart operations and perform different portions of these operations under direct supervision, such as: median sternotomy, cannulation, some anastomosis.
13. Work very closely with the cardiology fellows and pulmonary fellows in the preoperative evaluation and postoperative management of cardiothoracic surgery patients.

Endocrine Surgery

The overall GOAL of the Harbor-UCLA General Surgery Residency Program is to develop ethical, competent, and fully qualified general surgeons who, upon completion of training, will dedicate themselves to a high standard of surgical practice and contribute to the ongoing provision of quality patient care. Resident may gain exposure to the discipline of General Surgery in the Division of Endocrine Surgery at UCLA Ronald Reagan Medical Center/ Geffen School of Medicine.

Objectives

1. Provide a surgical training program that permits maximum opportunity for postgraduate surgery career and educational opportunities to perform endocrine-related procedures and disease management processes.
2. Ensure that all categorical residents in training will acquire detailed knowledge, experience, and technical skills in relation to preoperative, operative, postoperative care of patients of all dimensions and complexities in the diseases most commonly treated by the UCLA Endocrine Surgery team including:

Thyroid

Thyroid cancer, including:

- Papillary thyroid cancer
- Follicular thyroid cancer
- Hurthle cell thyroid cancer
- Medullary thyroid cancer
- Poorly (insular and anaplastic) differentiated thyroid cancer

Thyroid nodules

Thyroid disease in radiation-exposed individuals (including childhood cancer survivors)

Multinodular goiter

Hyperthyroidism, including:

- Graves disease
- Toxic multinodular goiter
- Toxic solitary nodule

▶ **Parathyroid**

Primary hyperparathyroidism

Renal (secondary and tertiary) hyperparathyroidism

Persistent and recurrent hyperparathyroidism

▶ **Adrenal**

Pheochromocytoma

Primary adrenal Cushing's syndrome

Primary hyperaldosteronism (Conn's syndrome or aldosteronoma)

Incidentally discovered adrenal masses (adrenal "incidentalomas")

Adrenocortical carcinoma

Isolated adrenal metastases

▶ **Pancreas**

Insulinoma

▶ **Genetic Syndromes**

Multiple endocrine neoplasia (MEN-1, MEN-2A, MEN-2B)

Familial pheochromocytoma/paraganglioma syndromes

Competency-based Objectives for Rotations in Endocrine Surgery

Patient Care

- Plans a diagnostic and therapeutic program for severely ill endocrine surgery patients
- Performs an appropriate focused surgical history and physical examination on patients with severe and acute endocrine disorders
- Performs and documents the procedures likely to be encountered in taking care of endocrine surgical patients under appropriate supervision
- Writes appropriate orders and plans for acutely ill surgical patients

- Work with the other disciplines in the Endocrine Surgery Multidisciplinary Teams to optimize collaborative care coordination

Medical Knowledge

- Appropriate knowledge of pathophysiology, diagnosis, and management of acute endocrine surgical problems
- Can explain indications for and complications of commonly used diagnostic tests and medical therapies in endocrine surgical patients
- Demonstrates awareness of areas of needed improvement in surgery knowledge
- Can explain indications and complications of endocrine surgical therapy, including bleeding, re-operation, infection, decompensation and death.

Practice-Based Learning and Improvement

- Shows appropriate use of consultation with medical and non-medical services, including special diagnostic studies
- Uses evidence from the medical literature to answer clinical questions
- Identifies areas for potential improvement in personal delivery of care
- Maintains a positive attitude towards learning, including attendance and participation on patient rounds and conferences, and evidence of reading or other methods of gaining knowledge
- Participates actively in teaching others, including students, residents, and faculty

Interpersonal and Communications Skills

- Presents a patient effectively and efficiently, avoiding jargon, and concisely summarizing pertinent information and plans
- Communicates with patients and concerned others effectively
- Writes accurate, complete, and legible entries in the medical record
- Works constructively as part of a team
- Exchanges information effectively and efficiently during rounds that reflects surgical issues and problems, current therapeutic plans, and expected complications and issues
- Understands the impact of severe surgical illness on patient and family, including medical ethical decision-making

Professionalism

- Focuses on issues of appropriate and adequate pain management
- Recognizes the importance of a patient's cultural, language, or family background and support
- Recognizes important end of life issues, including decision-making and forgoing of care
- Demonstrates respect and compassion for patients, including issues of informed consent
- Consistently interacts with other health care workers in a professional manner

Systems-Based Practice

- Appreciates the relationships between different levels of inpatient care, including general wards, progressive care, and surgical care.
- Understands basic information about cost-effectiveness care in the endocrine surgical and knows where to seek further information
- Demonstrates awareness of the outcomes of endocrine surgical care

Kaiser Permanente - General Surgery

The goal of this rotation through the affiliated HMO facility is to provide the R-4 with experience related to the surgical management of advanced gastrointestinal tract problems. During this rotation, the fourth year resident is the principal resident surgeon for all general surgery procedures, and performs under the direct supervision of an attending surgeon. The R-4 participates in the outpatient clinic and performs consultation with the surgeon on duty (first call) for both the surgical and nonsurgical services.

Objectives

1. Demonstrate increased knowledge of:
 - a. Gastrointestinal tract anatomy, anatomic location, and the relations of esophagus and stomach to vascular and lymphatics of the esophagus
 - b. Anatomic location and relations of the liver and biliary tree, vascular anatomy and variants, and lymphatics of the liver and biliary tree
 - c. Peptic ulcer disease
 - d. Diaphragmatic hernia
 - e. Physiology of the liver and biliary tree, pathophysiology of bile production, and formation of biliary lithiasis
 - f. Appropriate incision and surgical strategy for surgery of the pancreas and duodenum, both benign and malignant
 - g. Endocrinopathies (e.g. thyroid and adrenal)
 - h. Appropriate incision and surgical approach to surgery of the liver and biliary tree
 - i. Small bowel pathology
 - j. Foregut and endocrine malignancy
 - k. Breast disease, both benign and malignant
 - l. Colon anatomy (vascular supply and lymphatic drainage of the colon and rectum)
 - m. Rectal anatomy (anatomic definition and location of the rectum including, upper, mid- and lower rectal division, location and relationship of the sphincters, levators, and valves to surrounding structures)
2. Determine need for diagnostic modalities, including:
 - a. Laboratory studies
 - b. Radiographic studies including CT scan
 - c. Ultrasound
 - d. Isotope scanning
 - e. Needle and core biopsy of breast lesions
 - f. Magnetic resonance imaging
 - g. Laparoscopy
 - h. Endoscopy
3. Preoperative management including, but limited to:
 - a. Medical evaluation
 - b. Nutritional management
 - c. Pharmacologic manipulation
 - d. Evaluation of biopsy results
 - e. Determine the need for medical consultations
 - f. Attend and present at appropriate Kaiser Permanente conferences (e.g., Tumor Board)
4. Operative management including, but not limited to:
 - a. Biopsy
 - b. Mastectomy (under direct attending supervision)
 - c. Thyroidectomy (under direct attending supervision)

- d. Surgical management of peptic ulcer disease (under direct attending supervision)
 - e. Esophagectomy (under direct attending supervision)
 - f. Surgical management of peptic ulcer disease (under direct attending supervision)
 - g. Cholecystectomy (both laparoscopic and open)
 - h. Advanced laparoscopic procedures (under direct attending supervision)
5. Postoperative management:
- a. Critical care phase, as needed
 - b. Manage fluids and electrolytes
 - c. Wound care
 - d. Nutritional support
 - e. Review and evaluation of pathology results
 - f. Rehabilitation consults as needed
 - g. Consultation with other services
 - h. Manage tubes, drains, and fistulas
 - i. Discussion of patients at appropriate conferences

Trauma Acute Care Surgery and Critical Care

The primary goal of this rotation is to permit the fourth year surgical resident graded independence in the initial evaluation and subsequent management of injured and acutely ill patients. The Trauma Service attending on call will review the resident's initial evaluation and provide immediate feedback, which further develops the R-4's ability to master diagnostic and planning skills. A principal component of the fourth year is to gain increased skill in the management of trauma alerts when on call, and to function at a higher level as part of the resuscitation and operative team while under the direct supervision of an attending surgeon.

Objectives

1. Demonstrate skill in the diagnosis of acute surgical disease, including:
 - a. Biliary tract and liver pathology
 - b. Acute abdomen (e.g. perforated viscus, acute intra-abdominal processes)
 - c. Soft tissue infection
 - d. Vascular pathology (e.g. acute limb ischemia, bowel ischemia)
 - e. Manage lacerations
 - f. Resuscitation of trauma victims
2. Determine need for diagnostic modalities, including:
 - a. Laboratory studies
 - b. Radiographic studies including CT and MRI scans, and angiography
 - c. Ultrasound including FAST (trauma)
 - d. Laparoscopy
 - e. Endoscopy
3. Resuscitation and preoperative management:
 - a. ATLS protocols for the injured patient
 - b. Acute resuscitation including airway and fluid management
 - c. Fluid and electrolyte resuscitation of the acutely ill
 - d. Hemodynamic assessment including central hemodynamic monitoring
 - e. Use of cardiac and circulatory pharmacologic agents
 - f. Placement of tube thoracostomy
 - g. Placement of invasive catheters for fluid resuscitation
 - h. Perform pericardiocentesis
4. Operative management:
 - a. Appendectomy

- b. Cholecystectomy (both laparoscopic and open)
 - c. Incision and drainage
 - d. Examination under anesthesia
 - e. Fasciotomy
 - f. Laparotomy for acute abdomen (assistant surgeon)
 - g. Laparotomy for trauma (assistant surgeon)
 - h. Thoracotomy/ median stemotomy (assistant surgeon)
5. Postoperative management:
- a. Critical care phase, including:
 - i. Use of pressors
 - ii. Use of invasive hemodynamic monitors
 - iii. Manage hypotension
 - iv. Manage postoperative bleeding
 - v. Diagnosis and management of pulmonary embolism
 - vi. Ventilatory management
 - vii. Diagnose and manage postoperative infection
 - viii. Management postoperative fluids
 - ix. Nutritional access
 - b. Routine postoperative fluid and electrolyte management
 - c. Nutritional support
 - d. Manage wounds
 - e. Develop discharge planning
 - f. Diagnose and manage postoperative complications
 - g. Manage medical records

Kaiser – Vascular Surgery

The goal of this rotation through the affiliated HMO facility is to provide the R-4 with experience related to the diagnosis and surgical management of vascular disease, including the endovascular approach to aneurysmal atherosclerosis. The R-4 participates in the Vascular Clinic and performs consultation to both surgical and nonsurgical services.

Objectives

1. Demonstrate skill in the diagnosis and management of vascular disease, including, but limited to:
 - a. Acute limb ischemia
 - b. Chronic limb ischemia
 - c. Aneurysmal disease
 - d. Cerebrovascular disease
 - e. Diabetic vascular disease
 - f. Non-atherosclerotic vascular disease (e.g. Marfan's syndrome)
 - g. Lymphatic disease
 - h. Venous stasis and its complications
2. Determine the need for diagnostic modalities including:
 - a. Duplex ultrasonography
 - b. Ankle-brachial indices
 - c. Helical and axial CT scans
 - d. Angiography
 - e. Venography
 - f. Pulmonary angiography
 - g. Intravascular ultrasound

- h. Magnetic resonance angiography
 - i. Lymphangiography
 3. Preoperative management, including:
 - a. Medical assessment
 - i. Control of diabetes
 - ii. Cardiovascular assessment
 - iii. Respiratory assessment
 - b. Reduction of risk factors
 - c. Obtaining appropriate consultations
 - d. Attend and present at vascular conference
 4. Operative management
 - a. Amputation (digital, metatarsal, ankle, below knee)
 - b. Incision and drainage of abscesses
 - c. Aneurysmorrhaphy (assistant resident surgeon)
 - d. Femoropopliteal bypass (assistant resident surgeon)
 - e. Axillofemoral bypass (assistant resident surgeon)
 - f. Femorofemoral bypass (assistant resident surgeon)
 - g. Femoro-distal bypass (assistant resident surgeon)
 - h. Carotid endarterectomy (assistant resident surgeon)
 - i. Endovascular procedures (assistant resident surgeon)
 5. Postoperative management
 - a. Critical care phase
 - b. Routine postoperative fluid and electrolyte management
 - c. Wound management
 - d. Diagnosis and management of vascular and nonvascular postoperative complications
 - e. Nutritional support
 - f. Discharge planning
 - g. Medical record management

Competency-based Objectives for Rotations in General Surgery

Patient Care

- Plans a diagnostic and therapeutic program for severely ill surgical patients
- Performs an appropriate focused surgical history and physical examination on patients with severe and acute surgical disorders
- Performs and documents the procedures likely to be encountered in taking care of surgical patients under appropriate supervision
- Writes appropriate orders and plans for acutely ill surgical patients

Medical Knowledge

- Appropriate knowledge of pathophysiology, diagnosis, and management of acute surgical problems
- Can explain indications for and complications of commonly used diagnostic tests and medical therapies in surgical patients
- Demonstrates awareness of areas of needed improvement in surgery knowledge
- Can explain indications and complications of surgical therapy, including bleeding, re-operation, infection, decompensation and death.

Practice-Based Learning and Improvement

- Shows appropriate use of consultation with medical and non-medical services, including special diagnostic studies
- Uses evidence from the medical literature to answer clinical questions
- Identifies areas for potential improvement in personal delivery of care
- Maintains a positive attitude towards learning, including attendance and participation on patient rounds and conferences, and evidence of reading or other methods of gaining knowledge
- Participates actively in teaching others, including students, residents, and faculty

Interpersonal and Communications Skills

- Presents a patient effectively and efficiently, avoiding jargon, and concisely summarizing pertinent information and plans
- Communicates with patients and concerned others effectively
- Writes accurate, complete, and legible entries in the medical record
- Works constructively as part of a team
- Exchanges information effectively and efficiently during rounds that reflects surgical issues and problems, current therapeutic plans, and expected complications and issues
- Understands the impact of severe surgical illness on patient and family, including medical ethical decision-making

Professionalism

- Focuses on issues of appropriate and adequate pain management
- Recognizes the importance of a patient's cultural, language, or family background and support
- Recognizes important end of life issues, including decision-making and forgoing of care
- Demonstrates respect and compassion for patients, including issues of informed consent
- Consistently interacts with other health care workers in a professional manner

Systems-Based Practice

- Appreciates the relationships between different levels of inpatient care, including general wards, progressive care, and surgical care.
- Understands basic information about cost-effectiveness care in the surgical and knows where to seek further information
- Demonstrates awareness of the outcomes of surgical care

R-5 (CHIEF RESIDENT) OVERVIEW

The fifth clinical year of training is devoted to supervising the four General Surgery Services (GI/Oncology, Colorectal, Vascular, Breast and Trauma and Critical Care) and all junior level housestaff rotating through these services at Harbor-UCLA Medical Center.

R5 OVERALL GOALS

1. Gain uppermost skills in the evaluation and management of major surgical diseases, both pre- and postoperatively
2. Acquire the highest level of skill in developing diagnostic plans and operative strategies
3. Achieve a level of ability to function and operate independently, and instruct junior residents in surgical techniques
4. Be able to assume primary responsibility for a surgical service, including the supervision of ward rounds, therapeutic plans, and the education of residents and medical students
5. Acquire sufficient professional ability to practice competently and independently
6. Become qualified and eligible for Board certification

R5 ROTATION LEARNING OBJECTIVES

Colon and Rectal Surgery

Objectives

1. Colon anatomy
 - a. Understand the vascular supply and lymphatic drainage of the colon and rectum
 - b. Plan extent of operative resection with an understanding of the blood supply and lymphatic drainage (cancer)
 - c. Understand the relationship of adjacent abdominal and retroperitoneal organs
 - d. Be able to employ various techniques of mobilization of the colon with an understanding of adjacent structures
2. Rectal anatomy
 - a. Recognize the anatomic definition and location of the rectum (including upper, mid and lower rectal division), and understand the location and relationship of the sphincters, levators and valves to surrounding structures
 - b. Evaluate the location of rectal lesions with respect to adjacent structures (sphincters, levators, sacrum, peritoneum) - based on physical exam and rigid proctoscopy
 - c. Recognize the vascular supply and lymphatic drainage of the rectum
 - d. Develop strategy and perform resection for rectal lesions
3. Anal anatomy
 - a. Recognize the anatomic definition of the anal canal, and understand the anatomy of the sphincter (anal transition zone, anal canal, anal verge)
 - b. Differentiate anal and rectal pathology, perform anal exam, and evaluate anatomy of sphincter for pathology
4. Colorectal physiology
 - a. Understand the role of the colon in fluid and electrolyte balance
 - b. Manage patients with alterations in colon physiology (stomas, mucosal disease)
 - c. Understand normal colon motility patterns
 - d. Evaluate and develop treatment plans for altered motility patterns

- e. Know consequences of surgical resections of the colon and rectum
 - f. Manage patients postoperatively and educate them regarding alterations in function
 - g. Understand mechanisms of rectal continence
 - h. Evaluate by physical examination, radiologic and anatomic testing, alterations in continence
5. Colon disease
 - a. Develop differential diagnosis diagnostic plan for common colonic complaints, e.g., bleeding, diarrhea, obstructive symptoms, and incontinence
 - b. Plan and perform appropriate tests and therapy for common colonic pathology including, flexible endoscopy, rigid proctoscopy, and interpretation of contrast studies, ultrasound, manometry
 6. Inflammatory bowel disease
 - a. Recognize indications for operation and understand medical therapy, surgical options, and understand long term follow up and physiologic alterations post-surgery
 - b. Perform diagnostic endoscopy and biopsy, and interpret appropriate diagnostic tests
 - c. Develop operative strategy and perform surgery
 - d. Counsel patient pre and postoperatively regarding options, prognosis and follow-up
 7. Diverticulitis
 - a. Recognize indications for admission, diagnostic testing, operative therapy (emergent and elective)
 - b. Know proper evaluation (timing and specific testing)
 - c. Recognize extent of resection
 - d. Understand the role of diet, patient factors
 - e. Develop treatment plan (including medical failures), and counsel patient regarding prognosis and options
 - f. Perform anatomic surgical resection
 - g. Know options for emergent surgical resection (1,2 stage procedures, on-table lavage)
 8. Lower GI bleeding
 - a. Know diagnostic algorithm, and indications for surgery and surgical options
 - b. Interpret bleeding scans, angiograms, endoscopy
 - c. Recognize lesions identified on endoscopy (angiodysplasia, neoplasms, hemorrhoids)
 - d. Counsel patients and perform appropriate resection (emergently and electively)
 9. Stomas
 - a. Recognize types and indications of stomas (end, loop, ileostomy, colostomy), and understand normal physiology and recognize pathologic alterations
 - b. Recognize indications for reversal and pre-operative evaluation
 - c. Perform physical exam and recognize abnormalities
 - d. Perform preoperative marking
 - e. Counsel patients in physiology, care of, and long-term plans regarding stoma
 10. Anorectal disease
 - a. Recognize differential of anorectal lesions
 - b. Perform proctoscopy, anoscopy and digital examination
 - c. Recognize common anorectal lesions, and perform appropriate biopsy
 - d. Recognize indications for therapy of hemorrhoids
 - e. Perform banding, and surgical hemorrhoidectomy
 - f. Know predisposing factors and anatomic alterations, surgical alternatives, and prognosis of therapy for prolapse
 - g. Recognize on physical exam mucosal vs. full thickness prolapse, solitary rectal ulcer, and associated sphincter alterations

- h. Understand mechanisms of normal continence and common causes of incontinence, develop diagnostic plan, and surgical alternatives
 - i. Perform detailed examination including evaluation of nerve function, anatomic sphincter evaluation, and interpret associated tests (manometry, ultrasound, PNTML)
 - j. Know differential for anal fissure, pruritus, condyloma, abscess, fistula based on patient symptoms
 - k. Know medical therapy of benign anal conditions, and indications for surgical intervention
 - l. Recognize anal pathology based on symptoms and exam, develop treatment plan, and counsel patients
 - m. Perform exam under anesthesia, and know techniques for delineating pathology
 - n. Develop surgical plan for fistula with appropriate use of setons, fistulotomy
11. Colorectal malignancy
- a. Know recommendations for colorectal cancer screening
 - b. Understand genetic basis (polyp-cancer pathway) of colorectal cancer and implications for screening
 - c. Counsel patients regarding screening, and perform appropriate screening method
 - d. Perform flexible endoscopy and biopsy (snare, forceps)
 - e. Interpret pathologic results, and develop treatment and follow-up strategy
 - f. Knowledge of evaluation, treatment and staging of colon cancer and rectal cancer
 - g. Recognize treatment options including sphincter salvage, neoadjuvant therapy, functional outcomes
 - h. Develop treatment strategy and counsel patients in rectal cancer
 - i. Perform detailed exam, and determine appropriate test (CT, ultrasound), and develop treatment plan
 - j. Perform anatomical resection, interpret pathologic results, and develop follow-up plan
12. Anal malignancy
- a. Knowledge of pathology, evaluation, staging, and treatment
 - b. Perform appropriate exam, biopsy
 - c. Interpret pathologic results, and counsel patients regarding outcome

GI/Surgical Oncology

Objectives

1. Gastrointestinal tract anatomy
2. Know anatomic location and relations of the esophagus and stomach, and vascular and lymphatics of the esophagus
3. Plan appropriate incision and surgical approach to surgery of the esophagus and stomach
4. Know anatomic location and relations of the liver and biliary tree, and vascular anatomy, and variants and lymphatics of the liver and biliary tree
5. Plan appropriate incision and surgical approach to surgery of the liver and biliary tree
6. Know anatomic location and relations of the pancreas and duodenum, and Vascular and lymphatics of the duodenum
7. Plan appropriate incision and surgical approach to surgery of the pancreas and duodenum
8. Know anatomic location and relations of the small bowel, and vascular and lymphatics of the small bowel
9. Plan appropriate incision and surgical approach to surgery of the small bowel
10. Gastrointestinal tract physiology

11. Know the physiology of the esophagus and gastroesophageal junction
12. Diagnose functional disorders of motility of the esophagus and g-e junction, i.e. achalasia, reflux, etc., and propose a treatment plan (medical endoscopic and surgical) for these disorders
13. Perform surgical procedures to correct functional disorders of the esophagus (esophagomyotomy, antireflux surgery -Nissen, Toupet, Belsey-Mark IV)
14. Know the physiology of the stomach, and the mechanisms of gastric acid production and regulation
15. Diagnose peptic ulcer disease; diagnose the presence of H. Pylori, and propose a treatment plan based on treatment of the underlying factors and reduction of acid production via medical or surgical means
16. Perform acid reduction surgery (truncal vagotomy and antrectomy, truncal vagotomy and pyloroplasty, highly selective vagotomy)
17. Know the physiology of the liver and biliary tree, and pathophysiology of bile production and formation of biliary lithiasis
18. Diagnose biliary tract disease, e.g., cholelithiasis and its complications, recognize choledocholithiasis, and propose a treatment plan that addresses the role of surgical or endoscopic management
19. Perform cholecystectomy (laparoscopic and open), common duct exploration, and bilioenteric bypass
20. Know the physiology of the pancreas, and pathophysiology of pancreatitis
21. Diagnose acute pancreatitis, chronic pancreatitis and chronic pancreatic pain and pancreatic insufficiency, and propose a treatment plan for the acute phase of pancreatitis and its complications
22. Perform drainage of infected pancreatic necrosis, cysto gastrostomy, cystojejunostomy
23. Know the physiology of the small bowel, and pathophysiology of adynamic ileus and mechanical bowel obstruction
24. Diagnose mechanical bowel obstruction, adynamic ileus, and perform exploratory laparotomy, lysis of adhesions, bowel resection
25. Know the principles of cancer genetics and carcinogenesis. and the common familial cancer syndromes, ascertain the risk for developing cancer, and provide counseling to patient and family members
26. Know the principles of tumor biology. and determine the TNM Stage of a malignancy
27. Know the principles of cancer therapy, and the effects of surgery, radiotherapy, and chemotherapy, and propose a treatment plan that incorporates multidisciplinary management
28. GI tumors and malignancies
29. Gain knowledge of the clinical presentation and diagnostic work-up of GI tumors
30. Diagnose GI tumors/cancer
31. Recognize esophageal cancer biology, staging, and results of various therapies
32. Propose a treatment plan that incorporates multidisciplinary management, including surgery, chemotherapy and radiotherapy, determine the need of palliative care (i.e. esophageal stenting, nutritional support), perform esophagectomy (transhiatal, Ivor Lewis, left thoracoabdominal) with or without lymphadenectomy
33. Recognize gastric cancer biology, staging, and results of various therapies
34. Determine the presence of metastasis by the judicious use of diagnostic tests (CT, EUS), propose a treatment plan based on the extent of disease and the patient's symptoms, perform subtotal/total gastrectomy, and perform palliative surgery
35. Recognize pancreatic cancer biology, staging, and results of various therapies

36. Determine the presence of metastasis and extent of disease by the judicious use of diagnostic tests (CT, ERCP, EUS), propose a treatment plan based on extent of disease and the patient's symptoms, determine the need of palliative care (i.e. biliary stenting, nutritional support), perform pancreatoduodenectomy, distal pancreatectomy, and total pancreatectomy
37. Recognize liver cancer biology, staging, and results of various therapies
38. Determine a patient's operability based on the physiologic status and reserve, propose a treatment plan based on the extent of disease and the patient's symptoms, and perform liver resection
39. Soft tissue tumors
40. Know the anatomy of soft tissues
41. Diagnose a soft tissue tumor, select and perform different biopsy techniques (core biopsy, incisional biopsy, and excisional biopsy)
42. Recognize tumor pathology
43. Diagnose sarcoma and estimate prognosis based on pathologic criteria with emphasis on tumor grade
44. Recognize sarcoma biology, staging, and results of various therapies
45. Propose a treatment plan that incorporates multidisciplinary management, including surgery, and radiotherapy, and perform primary management of the sarcoma by limb-conservation or amputation
46. Endocrine system
47. Know thyroid physiology
48. Diagnose hyperthyroidism and hypothyroidism
49. Recognize clinical manifestations of thyroid neoplasms
50. Diagnose a thyroid neoplasm, and propose a rational diagnostic plan that includes performance of fine needle aspiration of thyroid nodules and thyroid lobectomy for diagnosis
51. Recognize thyroid tumor biology, staging, and results of various therapies
52. Propose a treatment plan that incorporates multidisciplinary management, including surgery, radiotherapy and suppression therapy, perform primary management by lobectomy or total thyroidectomy
53. Know parathyroid physiology
54. Request appropriate w/u for patients with suspected hyperparathyroidism, diagnose hyperparathyroidism, and perform neck exploration, resection of adenoma, hyperplasia and autotransplantation
55. Know clinical pathologic correlation
56. Recognize parathyroid adenoma vs. hyperplasia, and perform appropriate surgical therapy
57. Know adrenal physiology
58. Request appropriate w/u for patients with adrenal mass or those suspected of adrenal clinical syndromes, and diagnose adrenal insufficiency, Conn's syndrome, Cushing's syndrome, and pheochromocytoma
59. Know adrenal anatomy
60. Propose a treatment plan, discuss surgical therapy, and focus on the preferred surgical approach, laparoscopic vs. anterior vs. posterior

Trauma Acute Care Surgery and Critical Care

Objectives

1. Know initial resuscitation of the trauma patient
2. Perform initial resuscitation of the trauma patient with emphasis on airway management, ventilation, and venous access through the use of percutaneous or surgical means

3. Know the initial assessment of the trauma patient
4. Perform initial assessment of the injured patient with focus on prioritization of care by identification of the most severe, life-threatening injuries
5. Develop a systematic, thorough assessment of the trauma patient, and be able to perform the secondary survey while avoiding missed injuries
6. Know imaging modalities for the trauma patient, request appropriate tests for the type of injury and patient condition, and be able to interpret x-rays (plain films and CT) in a clinical context
7. Perform basic diagnostic and therapeutic surgical procedures in the trauma setting, i.e., cricothyroidotomy, tracheostomy, thoracostomy tube placement, pericardiocentesis, diagnostic peritoneal lavage, venous cutdown, and repair of lacerations
8. Understand principles of trauma triage. recognize severe injuries, and prioritize prompt surgical intervention
9. Perform exploratory laparotomy and thoracotomy with repair or removal of injured organs
10. Understand pathophysiology of shock and injury, and exhibit appropriate clinical judgment suited to the individual patient
11. Understand the metabolic consequences of trauma, and be able to propose a rational treatment plan addressing the fluid and electrolyte requirements as well as the nutritional needs of the injured patient
12. Recognize prophylaxes and treat infection
13. Recognize injuries to other organ systems, and coordinate appropriate management in conjunction with surgical subspecialties
14. Recognize and diagnose shock, hypovolemia, and sepsis syndrome, initiate treatment of these conditions by prioritization of airway, breathing, and circulation, provide resuscitation with fluid and electrolyte replacement, use antibiotic therapy when appropriate, and use blood products when indicated
15. Demonstrate ability to formulate a differential diagnosis regarding abdominal pain, diagnose the acute abdomen, recognize indications for surgical management, propose a plan for evaluation of the patient with abdominal pain with the judicious use of ancillary tests (i.e., CT abdomen), and recognize localized peritonitis and the potential for initial non-surgical therapy
16. Understand the pathophysiology of peritonitis, and be able to diagnose peritonitis and formulate a plan for non-surgical vs. surgical management
17. Manage abscess with percutaneous vs. surgical drainage
18. Perform laparotomy and surgical exploration with identification and repair of the primary pathologic process including, perforated ulcer, cholecystitis, diverticulitis, and appendicitis. etc.
19. Diagnose and manage acute pancreatitis and pyelonephritis
20. Diagnose gastrointestinal bleeding, differentiate upper vs. lower GI source, formulate appropriate differential diagnosis, and correspond w/u for each patient incorporating the application of diagnostic and therapeutic endoscopy, nuclear medicine scans, and angiography
21. Recognize peptic ulcer disease and the nonsurgical and surgical management of the bleeding gastric or duodenal ulcer by endoscopic and surgical means, including acid-reducing surgery, when appropriate
22. Diagnose biliary tract disease and recognize complications including, cholecystitis, cholangitis, and gallstone ileus, etc.
23. Know surgical therapy of complications of biliary tract disease, including cholecystectomy and common duct exploration

24. Diagnose acute pancreatitis and establish severity of the disease using appropriate clinical, laboratory, and radiologic studies
25. Manage acute pancreatitis (fluid, electrolytes, nutrition, ventilatory, and renal support) and infectious complications (antibiotics, debridement, and drainage)
26. Diagnose intestinal obstruction, render differential diagnosis of small bowel vs. large bowel obstruction, diagnose cause of obstruction, diagnose partial vs. complete bowel obstruction, and know surgical vs. non-surgical therapy of bowel obstruction

Vascular Surgery

Objectives

1. Know vascular anatomy and regional anatomy related to vascular disease
2. Diagnose level of disease, and plan appropriate incision and surgical approach to surgery of the blood vessels
3. Recognize the relationship of the following disorders/practices to atherosclerotic vascular disease: diabetes mellitus, hypertension, renal failure, congestive heart failure, hyperlipidemia, and smoking
4. Recognize limb-threatening and life-threatening signs of vascular disease and be able to identify these events
5. Propose an expeditious plan of medical and surgical management of the patient with severe ischemia
6. Know operative technique with regard to the principles of vascular bypass grafting and endarterectomy
7. Ability to appropriately handle vascular tissue
8. Become proficient in reoperative and emergency vascular surgery
9. Recognize congenital vascular disease
10. Recognize atherosclerotic VD, aortoiliac occlusive disease, and peripheral vascular disease, and be able to propose a management plan incorporating: exercise and medical therapy (anticoagulation, thrombolytics), balloon angioplasty, vascular stent placement, and surgical intervention (endarterectomy, bypass)
11. Know prosthetic materials, benefits, complications. and appropriate use of autologous tissue vs. prosthetic materials
12. Recognize the pathogenesis and complications of aneurysmal disease, and be able to propose a management plan that includes: endovascular techniques and surgical intervention
13. Know the complications of major vascular surgery. and be able to manage these complications (e.g., infected graft, graft thrombosis, extremity ischemia, and ischemic bowel)
14. Recognize carotid artery disease. and be able to propose a management plan that addresses indications for surgery vs. medical management, type of operation, intraoperative monitoring of cerebral perfusion, and the use of intraoperative shunts
15. Know venous and lymphatic diseases, and be able to propose a management plan.
16. Manage varicose veins and know role of compression devices vs. surgery
17. Manage stasis ulcers
18. Manage deep venous insufficiency. role of venous bypass
19. Know imaging techniques in vascular surgery and the appropriate use of ultrasound, spiral CT, and MRI
20. Know the etiology, microbiology, and therapy of diabetic foot infection and be able to develop an appropriate management plan emphasizing, vascular status of the foot, need of revascularization, need of surgical debridement, amputation, and appropriate antibiotic use and glucose control

21. Recognize and diagnose catastrophic vascular events such as ruptured aneurysm, and know the principles of initial management
22. Recognize extremity ischemia and be able to diagnose the level of disease
23. Know differentiation of embolic vs. thrombotic event, provide initial management with anticoagulation, and therapy with thrombolytics vs. surgical therapy
24. Know critical factors for decision-making in vascular surgery and be able to determine the risk-reward ratio while estimating the morbidity and mortality probability

Competency-based Objectives for Rotations in General Surgery

Patient Care

- Plans a diagnostic and therapeutic program for severely ill surgical patients
- Performs an appropriate focused surgical history and physical examination on patients with severe and acute surgical disorders
- Performs and documents the procedures likely to be encountered in taking care of surgical patients under appropriate supervision
- Writes appropriate orders and plans for acutely ill surgical patients

Medical Knowledge

- Appropriate knowledge of pathophysiology, diagnosis, and management of acute surgical problems
- Can explain indications for and complications of commonly used diagnostic tests and medical therapies in surgical patients
- Demonstrates awareness of areas of needed improvement in surgery knowledge
- Can explain indications and complications of surgical therapy, including bleeding, re-operation, infection, decompensation and death.

Practice-Based Learning and Improvement

- Shows appropriate use of consultation with medical and non-medical services, including special diagnostic studies
- Uses evidence from the medical literature to answer clinical questions
- Identifies areas for potential improvement in personal delivery of care
- Maintains a positive attitude towards learning, including attendance and participation on patient rounds and conferences, and evidence of reading or other methods of gaining knowledge
- Participates actively in teaching others, including students, residents, and faculty

Interpersonal and Communications Skills

- Presents a patient effectively and efficiently, avoiding jargon, and concisely summarizing pertinent information and plans
- Communicates with patients and concerned others effectively
- Writes accurate, complete, and legible entries in the medical record
- Works constructively as part of a team
- Exchanges information effectively and efficiently during rounds that reflects surgical issues and problems, current therapeutic plans, and expected complications and issues
- Understands the impact of severe surgical illness on patient and family, including medical ethical decision-making

Professionalism

- Focuses on issues of appropriate and adequate pain management

- Recognizes the importance of a patient's cultural, language, or family background and support
- Recognizes important end of life issues, including decision-making and forgoing of care
- Demonstrates respect and compassion for patients, including issues of informed consent
- Consistently interacts with other health care workers in a professional manner

Systems-Based Practice

- Appreciates the relationships between different levels of inpatient care, including general wards, progressive care, and surgical care.
- Understands basic information about cost-effectiveness care in the surgical and knows where to seek further information
- Demonstrates awareness of the outcomes of surgical care