THE UNIVERSITY
OF
SOUTHERN CALIFORNIA
PROGRAM
IN
VASCULAR SURGERY
HANDBOOK
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INTRODUCTION

The University of Southern California (USC) Program in Vascular Surgery offers a 5 year integrated tract which is conducted at the University of Southern California Health Sciences Campus (USC Keck Hospital – and Los Angeles County+USC Medical Center (LAC+USCMC), Huntington Memorial Hospital (HMH) in Pasadena and Kaiser Hospital Sunset (KHS) in Los Angeles. The integrated tract is offered to those who have an MD degree but have not received formal surgical training.

The integrated tract provides a progressive learning experience for the GY 1-2 residents which are focused on the core of surgery that is relevant to vascular surgery. The GY 3 resident experience includes core general surgery, vascular diagnostics and vascular medicine. This is followed by GY 4-5 where the resident masters the knowledge and skills necessary to be an expert vascular and endovascular surgeon. The GY 4 is focused on providing a thorough and in depth endovascular and noninvasive vascular laboratory experience that is enhanced by two clinical experiences at participating hospitals where the resident performs the broad array of vascular surgery. During GY 4, the resident with faculty oversight will also be engaged in clinical research. The GY 5 is structured around open vascular surgery, ambulatory care, and inpatient care at USC Keck Hospital and LAC+USC Medical Center. The Integrated GY 4-5 are considered senior residents in the program.

The vascular faculty at all hospitals who are responsible for vascular surgery education are faculty of the USC Division of Vascular Surgery and Endovascular Therapy. Faculty from the Departments of Surgery, Anesthesia, Radiology and Medicine participate in the resident curriculum in the Integrated Tract years GY 1-3. Senior resident rotations are designed to provide the resident with a balanced education in index vascular surgery procedures; complex, redo and unusual procedures; endovascular procedures; and invasive and noninvasive diagnostics for vascular disease.

At HMH, the senior resident is exposed to a large volume of open reconstructive and endovascular procedures. The resident team consists of a PGY I, and PGY II or III surgery resident along with the Vascular resident. The hospital has an active emergency room and is a Level II Trauma Center. As the major provider of acute care services in the west San Gabriel Valley, a diverse experience in vascular problems of an urgent and emergent nature is available.

Kaiser Permanente is a completely integrated healthcare system. The Sunset location in Los Angeles is a large tertiary referral center for the Kaiser system. This will provide the vascular resident with a high volume experience of commonly seen vascular procedures as well as the complicated and unusual. As the senior resident on the vascular surgery service the, the vascular resident will also supervise junior surgical residents in the Kaiser General Surgery program.

At USC Health Sciences Campus, the senior resident will oversee the USC Keck Hospital vascular surgery service which also includes a PGY I and II surgery
resident. USC Keck Hospital is a major referral center, providing the resident with experience in complex and re-do vascular surgery procedures. Vascular faculty performs a wide range of endovascular procedures, including aortic stent grafts, percutaneous angioplasty/stents and diagnostic angiography. The USC Keck Hospital also has an active ICAVL accredited noninvasive vascular laboratory directed by USC faculty.

LAC+USC Medical Center is one of the largest hospitals in the United States with the busiest emergency room and largest trauma center in the USA. The senior vascular resident supervises a very busy vascular service with a broad spectrum of vascular disease including atherosclerosis, embolic/thrombotic disorders, arteritis and traumatic vascular injuries. The service is fully integrated with the vascular medicine service at LAC+USC.

**ADMINISTRATIVE ORGANIZATION**

The Integrated program was granted provisional approval in October 2010. Both programs are conducted through the Department of Surgery at the Keck School of Medicine of USC. Dr. Vincent Rowe, Associate Professor of Vascular Surgery and is the Program Director. He makes policy, appoints personnel, and directs the program. Dr Fred Weaver, Chief of Vascular Surgery and Endovascular Therapy, serves as the Associate Program Director. The training program utilizes the facilities of USC Health Sciences Campus (USC Keck Hospital and LAC+USC Medical Center), Hunington Memorial Hospital and Kaiser Hospital Sunset.

**Vascular Surgery Graduate Medical Education Committee (VSGMEC)**

The Vascular Surgery GMEC provides oversight of the Vascular Surgery Residency Program. The Committee is chaired by the Program Director. The membership consists of faculty, senior residents, categorical vascular residents from each year of training, and program coordinator. The Committee meets quarterly.
HOSPITALS

USC KECK HOSPITAL

USC Keck Hospital is a private, 411-bed acute care hospital staffed by The Doctors of USC, who are also faculty at the renowned Keck School of Medicine of the University of Southern California.

Opened in 1991, this modern facility offers some of the most sophisticated technology available. Among the hospital's advanced services are neurointerventional radiology, minimally invasive cardiothoracic surgery, robotic surgery and interventional cardiology. Surgical specialties include organ transplantation and neurosurgery, as well as vascular, cardiothoracic, bariatric, esophageal, orthopaedic, and plastic and reconstructive surgeries.

Conveniently located just off the San Bernardino freeway near downtown Los Angeles, USC Keck Hospital offers top medical expertise and sophisticated technology, combined with a personalized approach to health care. Patients also can visit the private offices of USC physicians, The Doctors of USC, in the Healthcare Consultation Centers I & II, located adjacent to the hospital on USC’s Health Sciences Campus.

LAC+USC MEDICAL CENTER

Founded in 1878, Los Angeles County LAC+USC Healthcare Network (LAC+USC) is the nation’s largest academic institution. It is one of the largest acute care hospitals in America and has been the primary facility of the University of Southern California School of Medicine since 1885. Originally established as a 100-bed hospital with 47 patients, it now is licensed for 1,395 beds and budgeted to staff 745 beds.

LAC+USC provides a full spectrum of emergency, inpatient and outpatient services. These include medical, surgical and emergency/trauma services in General Hospital. In Women's and Children's Hospital it provides obstetrical, gynecological, pediatric and specialized neonatal intensive care services as well as psychiatric services for adults, adolescents and children.

As the largest single provider of healthcare in the County, provides the community with more than 28 percent of its trauma care. It operates one of three burn centers in the County and one of the few Level III Neonatal Intensive Care Units in Southern California. It provides care for half of both AIDS patients and sickle cell anemia patients in Southern California. It maintains inpatient and outpatient services for the most acute cases of mental illness. It trains approximately 1,500 medical professionals per day, including more than 870 medical residents in nearly all medical specialties.
HUNTINGTON MEMORIAL HOSPITAL

For over 117 years - Since 1892 - Huntington Memorial Hospital has provided quality, uninterrupted healthcare to the residents of the San Gabriel Valley and beyond.

Today, our 635-bed, not-for-profit hospital is home to the only trauma center in the region. Renowned for programs in cancer care, neurosciences and cardiovascular services, Huntington is also an active teaching hospital with a Graduate Medical Education program with tracks in internal medicine and general surgery. In addition, the hospital has the only regional neonatal intensive care unit, treating infants with the highest acuity.

Consistent with its mission of excelling in the delivery of quality care, Huntington provides millions of dollars in charity care, benefits for vulnerable populations, health research, education and training. We offer many programs – free to the community – that might otherwise be nonexistent – including geriatric psychiatric services, children’s asthma management and diabetes workshops in English and Spanish.

KAISER PERMANENTE LOS ANGELES MEDICAL CENTER

The Kaiser Permanente Los Angeles Medical Center (LAMC) is a multi-specialty teaching hospital located in Hollywood, California. A new, state of the art facility opened in 2009 to replace the original 1953 hospital. We provide training to over 200 residents and fellows in 20 accredited programs. In 2007, Kaiser Permanente installed the largest non-governmental integrated electronic medical record in the world. All patient records and radiologic imaging are secure and online.

Our new 396-bed medical center is fully operational as the tertiary referral hospital for 3.3 million Kaiser Permanente members. We have over 25 operating rooms, including 5 outpatient surgicenter rooms. Upon final completion of the third tower in 2014, we will have 496 beds in all. The Department of Surgery is located in a modern medical office building that is directly across the street from the new hospital.

Kaiser Permanente LAMC offers an unparalleled diversity of patients spanning from primary care to complex tertiary cases. Our department currently includes 17 full time faculty members whose entire focus is devoted to graduate surgical education. Our patient population reflects the diversity of Southern California.

This large clinical load, combining common and esoteric problems, gives you an experience that is equally broad and deep and prepares you for an active clinical practice.
PROGRAM STRUCTURE AND CURRICULUM

INPATIENT VASCULAR SERVICES

Vascular services at hospitals in the program are directed by senior vascular residents. Each service has a complement of general, vascular, cardiac surgery residents GY 1-3 who are organized and directed by the senior vascular resident. The vascular resident has senior resident level operating and patient care responsibility. The attending is scrubbed at the operating table to teach, direct, and assume ultimate surgical responsibility. The goal is for the vascular resident to receive a broad case experience which includes exposure to the difficult, the unusual, and redo vascular procedures and the associated patient care.

AMBULATORY EXPERIENCE

While at USC Keck Hospital, the vascular resident is expected to attend the Vascular Surgery clinic located on the 4th floor of the Healthcare Consultation Center II. During rotations at HMH, the vascular resident ambulatory experience is at the USC Vascular Surgery Pasadena Office. At LAC+USC Medical Center and Kaiser the resident supervises a weekly clinic. This ambulatory experience gives the resident an opportunity to see patients both pre and postoperatively with attending surgeons.

VASCULAR IMAGING

The Vascular Diagnostic Laboratories are physically located in the hospital at USC Keck Hospital, Huntington Memorial Hospital and LAC+USC as well as the the USC CardioVascular Thoracic (CVTI) on the Health Sciences Campus. The vascular resident on selected rotations interprets vascular studies at USC Keck Hospital with attending vascular surgeon supervision. During the vascular imaging rotation, at least one day a week is spent performing duplex and physiologic studies which are supervised by the USC Keck Hospital Technical Director. The resident also works with Department of Radiology faculty interpreting CT and MR body imaging with a focus on vascular structures and pathology. In addition, the vascular resident organizes the Quarterly Vascular Lab Q/A with the assistance of the USC Keck Hospital Technical Director.

At the completion of the vascular residency, the resident will have obtained knowledge concerning the physiologic basis of laboratory testing, the performance of vascular studies, the application of laboratory testing for the evaluation and management of patients undergoing vascular repair, and the interpretation of laboratory tests results. This educational objective is augmented by experience at HMH, LAC+USC and the self study curriculum. At the completion of the residency the resident will have completed the necessary requirements to be a candidate for Physician Vascular Interpretation (PVI) certification.
VENOUS OFFICE PROCEDURES

The vascular resident spends time dedicated to performing ambulatory venous procedures including saphenous vein ablation, sclerotherapy and phlebectomy. This experience is conducted at the Division’s Pasadena office with faculty supervision.

ANGIOGRAPHY/ENDOVASCULAR PROCEDURES

The vascular resident will become proficient and comfortable with arterial and venous angiograms as well as the indications for angiography through hands on experience. Performing and interpreting angiograms is woven into the program at all hospitals. The vascular resident will be involved with a wide variety of endovascular procedures including carotid angiography/stenting, endografts, angioplasties, stent placement, mechanica/thrombolytic therapy and embolotherapy.

ACGME (RESIDENT CASE LOG SYSTEM) DATA BASE

The Resident Case Log System for Operative Log Reporting is an Internet based case log system utilizing CPT codes and ICD9 codes to track resident experiences. The resident should enter all procedures and choose codes that accurately reflect the procedure performed or the code that most closely matches the procedure. The log is an essential document in the process of Board Certification in Vascular Surgery.

Access to the system is available through most commonly used internet browsers. No special download of additional software is required. On the internet go to www.acgme.org – on the left hand panel of the screen, point your cursor on “Data Collection System”, move the cursor down to “Resident Case Log System” and click on “Login”. Use the User I.D. and temporary password provided to you by the Residency Coordinator. (PLEASE NOTE: If you click open The Resident Case Log System Screen you will find information on User’s Manuals, Listings of all available codes, Requirements, Guidelines and other information which might be helpful to you when getting started.)

ROUNDS AND CONFERENCES

ATTENDING ROUNDS

Attending rounds are made with the on-call faculty member. In addition, formal attending rounds with all vascular faculty, housestaff and medical students occur once a week. Residents as well as medical students should be prepared to review pertinent diagnostic studies and give bedside patient presentations.

PREOP CONFERENCE

Vascular residents present patients scheduled for a vascular procedure in the coming week. These selected cases are presented to an audience of faculty, housestaff, medical students and other clinical staff each Thursday. The resident is
expected to diagnose the patient problem and formulate a therapeutic plan which will be discussed by attending staff, residents and students attending the conference.

**MORBIDITY AND MORTALITY CONFERENCE**

The morbidity and mortality (M & M) from the vascular services at USC Keck Hospital, HMH, LAC+USC and Kaiser are discussed monthly. The resident is responsible for discussing all cases of M & M on his/her service along with pertinent diagnostic studies and procedures. A specific form is completed by the resident for each case discussed.

**JOURNAL CLUB**

Articles from the recent vascular literature are reviewed. Selection and assignment of specific articles are to be digested, summarized and discussed by the residents on the vascular service is done by a member of the full time faculty. The resident is expected to research and discuss recent articles which may be related to his/her assigned article. A specific form is completed by the resident for each article discussed.

**VASCULAR LABORATORY QUALITY ASSURANCE**

The results of vascular lab studies performed for the past quarter are reviewed and compared to the angiographic findings. Discrepancies between the noninvasive study, angiogram, CTA and MRA are discussed with a focus on technique and criteria used for interpretation. Vascular residents are responsible for organization of the conference with the assistance of the Technical Director.

**RUTHERFORD CURRICULUM**

The Rutherford Texbook in Vascular Surgery is reviewed every two years with resident presentations on a weekly basis. The format includes chapter powerpoint presentations and then discussion encouraged by selected questions from VESAP and Rutherford.

**DIDACTIC LECTURES**

Selected didactic lectures are given by invited and vascular faculty on the topics of Risk Management, Billing and Coding, Hyperlipidemia, Hypertension, Practice Finances and other topics of interest to Vascular surgeons.

**CADAVER SKILLS LAB**

A quarterly cadaver dissection lab of selected vascular beds provides the vascular resident with hands on knowledge of vascular surgical anatomy and open vascular exposures.
QUARTERLY DIVISION GME MEETING

Faculty and residents meet to discuss academic, education and practice related issues of the Division. The meeting includes the senior vascular residents and selected GY 1-3 vascular residents such that real time input and improvement of the educational program is accomplished.

RESEARCH CONFERENCE

Progress on ongoing studies and research presentations comprise the Conference activities. Residents involved in research projects provide updates and presentations

ANNUAL REVIEW COURSE IN VASCULAR SURGERY

The annual review course at UCLA occurs in the fall of each year. Attendance at this course is part of the curriculum. The conference is attended by selected senior vascular residents who are free of clinical responsibilities during that week.

USC SURGERY GRAND ROUNDS

This conference is held every Friday morning from 8:30 to 9:30 a.m. Topics of interest in the discipline of surgery, are presented. Vascular Surgery hosts Surgery Grand Rounds four times a year

USC DEPARTMENT OF SURGERY MORBIDITY AND MORTALITY

Departmental M&M occurs every Friday morning, 7:30 a.m. to 8:30 a.m. for all surgical services in the USC Department of Surgery. Vascular Surgery M&M is discussed at this conference before an audience of surgical faculty, housestaff and medical students.
## ROTATION SCHEDULE (0-5 PROGRAM)

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DUTY HOURS AND ON-CALL RESPONSIBILITIES

The senior vascular resident call is by beeper or at home. In-house call is not required, with the exception of those clinical situations where patient care concerns or instability dictate that the resident stay in-house. While on-call the resident is responsible for discussing any patient care concerns or consults with the on-call faculty. An on call schedule is available and posted on the Verinform and amion. During the week (Monday-Thursday) faculty call begins at 5:00 p.m. Week-end call commences 4:00 p.m. Friday and ends 7:00 a.m. Monday morning. The week-end on-call surgeon will coordinate cases and rounds with the vascular resident. Rounds on every patient will be made by the on-call team everyday. Any week-end calls or consults received by the Vascular resident for surgeons not on-call should be referred to the on-call surgeon.

Call for GY 1-3, is service specific and includes both in house and at home call. Duty hour requirements as outlined by the RRC in Surgery and the ACGME govern on call responsibilities. These requirements are strictly enforced and monitored through Verinform.

ON-CALL AND DUTY HOURS MONITORING

The Program, the Program Director and the USC/LAC+USC Medical Center’s Graduate Medical Education Committee and DIO are fully committed to duty hour limits and the required monitoring. The Program Director endorses and monitors the ACGME Duty Hours requirements in the following manner:

OVERSIGHT/MONITORING

1. Duty hours are monitored through the electronic on-line residency information management system
2. All residents are required to self report their duty hours on the electronic residency management information system on an ongoing basis
3. Supervising faculty and senior residents are required to ensure compliance of duty hours. Any duty hour concern is immediately address.
4. The Program director continually monitors duty hour compliance. Any duty hour alleged or real duty hour violations is immediately investigated with the appropriate corrective action plan implemented.
5. All program personnel have the responsibility to monitor residents for the effects of sleep loss and fatigue. Residents will be removed from direct patient in instances where they are deemed not fit for duty and reported to the program director
6. Residents and faculty are provided a copy of the duty hour policy
7. The Program Director will monitor duty hour compliance quarterly through the electronic online system (Verinform) or more frequently if warranted.
8. The monitoring of residents duty hours is required with frequency sufficient to ensure an appropriate balance between education and service (which will be quarterly monitoring)
9. It is accessed by a confidential username and password that can be obtained through the Residency Coordinator. This on-line log is monitored by the Program Director but also by the GME office.
10. Also, there is a 24/7 Duty Hour Hot-Line (323) 409-6920
11. The GME conducts an annual Duty Hour Survey and provides redacted data that is shared with the Program Director

RESIDENT DUTY HOURS

Responsibility to the Patient

1. Resident obligation to patients is not automatically discharged at any given hour of the day or any particular day of the week.
2. Under no condition can the resident be relieved of duty until the proper care and welfare of the patients have been ensured by a suitable professional replacement.
3. Faculty and residents share the responsibility for patient safety and welfare.

Responsibility to the Residents

1. The program has a responsibility to ensure that resident duty hours promote resident education, safety and well-being.

Duty Hours

1. Residents are not scheduled for more than 80 hours of duty per week, averaged over a four-week period.
2. Residents are provided one day in seven free from all patient care responsibilities, averaged over a four-week period.
3. In House call is no more frequent than every third night averaged over a four-week period.
4. Duty periods for PGY-1 residents do not exceed 16 hours in duration.
5. Duty periods for PGY-2 residents and above are scheduled to a maximum of 24 hours of continuous duty in the hospital.
6. PGY-2 residents and above are allowed to remain on site for an additional two hours to accomplish effective transitions in patient care.
7. Residents are not to be assigned additional clinical responsibility after 24 hours of continuous in house duty.
8. In unusual circumstances residents may remain beyond their scheduled duty period in order to continue the provision of care for a single patient. Justifications for such extension of duty are limited to continuity of care for a severely ill/unstable patient, academic importance of events transpiring or humanistic attention to the needs of a patient or family.
9. If the resident remains beyond his/her scheduled duty period, he/she is to appropriately handover the care of all other patients to the team responsible for continuum of care.
10. The resident will document duty hour exceptions on the on-line electronic residency information management system with justification.
11. The Program Director will monitor each resident’s submission of additional service and track both individual resident and program-wide episodes of additional duty

12. PGY-1 residents are assigned 10 hours free of duty between scheduled duty periods

13. PGY-2 residents are assigned 10 hours free of duty between scheduled duty periods

14. PGY-2 / 3 residents are scheduled at least 14 hours free of duty after 24 hours of in-house duty

15. PY-3 residents are assigned 10 hours free of duty between scheduled duty periods

16. Residents in the final years of education [as defined by the Review Committee] must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods. The preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances [as defined by the Review Committee] when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty

17. The program will monitor senior residents who return to hospital activities with fewer than 8 hours away from the hospital. When residents take call from home and are called into the hospital, the time spent in the hospital counts toward the weekly hour limit

**ALERTNESS, MANAGEMENT/FATIGUE MITIGATION**

The Program Director educates all residents and faculty to recognize the signs of fatigue and sleep deprivation. Residents and faculty are required to review the “Fitness for duty: Alertness Management and Fatigue Mitigation” handbook and sign verifying they have reviewed the training.

The Program’s fatigue and mitigation process ensures a back up call system. The resident back-up call schedule ensures continuity of patient care in the event a resident is unable to perform his/her patient care duties. The program provides adequate sleep facilities, and transportation options for residents to safely return home. Specifically, transportation home by taxi for resident who are fatigued due to in hospital patient care duties.

**MOONLIGHTING**

Moonlighting is prohibited during the USC Vascular Surgery Residency
WEEKEND CALL/PATIENT HANDOFF

Weekend call begins at 4pm Friday afternoon and ends at 7am Monday morning. It is required that the resident on call for the weekend contact all other vascular residents for a list and description of all inpatients being cared for by the vascular services at USC Keck Hospital, LAC+USC and Huntington/Methodist Hospitals (when a USC vascular resident is on the HMH rotation). This communication should be done verbally with a follow-up electronic communication that lists all inpatients. This electronic list should include: Hospital, Diagnosis, Vascular Procedure, Hospital or Post Operative Day, and treatment plan for the weekend. Patients who require special attention should be emphasized. Following weekend call there should be reciprocal communication to the vascular residents who were off for the weekend detailing new admissions, diagnosis, and treatment rendered. Issues with existing patients over the weekend should also be communicated. This communication should be electronic, verbal or both depending on the events that occurred during the weekend. It is the responsibility of the on call resident to communicate with the on call attending physician concerning patient coverage over the weekend. Patient care decisions are always made in consultation with the on call physician, particularly as it pertains to the need for operative intervention. The names of the specific weekend on call resident and attending will be electronically sent out to all faculty and residents on Thursday by the residency office and can also be found on Amion.

RESIDENT BACK UP

Resident Back-Up is available through the attending physician on call. If the vascular resident requires additional assistance or relief due to clinical circumstances and/or resident fatigue the on call physician should be notified. The on call physician will alert the Program Director who will personally provide assistance to remedy the situation. In the case of the Program Director being the on call physician, the Associate Program Director is to be notified for assistance.

ON CALL SLEEP ROOMS, FACILITIES AND FOOD SERVICE

<table>
<thead>
<tr>
<th></th>
<th>USC Keck Hospital</th>
<th>Huntington Hospital</th>
<th>LAC+USC Medical Center</th>
<th>Kaiser Los Angeles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleeping Rooms</td>
<td>Yes (5 south)</td>
<td>Yes (Oasis)</td>
<td>Yes (5A Room 5H4215 &amp; 5B Room 5P217)</td>
<td>Yes (Surgical Call Room)</td>
</tr>
<tr>
<td>Sleeping Rooms segregated by Gender</td>
<td>No</td>
<td>Yes (Oasis)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Shower/Bath</td>
<td>Yes (Locker Rooms)</td>
<td>Yes (Oasis)</td>
<td>Yes (Oasis)</td>
<td>Yes (Locker Rooms)</td>
</tr>
<tr>
<td>Secure Areas (lockers or rooms that can be locked)</td>
<td>Yes (3rd floor staff lounge)</td>
<td>Yes (In Call Rooms)</td>
<td>Yes (Room C4K113)</td>
<td>Yes (Locker Rooms)</td>
</tr>
<tr>
<td>24/hr food service</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>24/hr food availability (vending machines)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
PROFESSIONALISM, PERSONAL RESPONSIBILITY AND PATIENT SAFETY, QI

The Program conducts annual educational conference on ‘Fitness for duty: Alertness Management and Fatigue Mitigation. The Program will promote resident well being, patient safety, and QI. The Program ensures that residents are formally educated in QI principles in an integrated curricular approach. Residents participate in interdisciplinary clinical quality improvement and patient safety programs. Evidence of such activities is documented in GMEC minutes that summarize recent and current activities.

Expectations of each resident includes:

1. Participation in a quality improvement project during their residency training
2. Formative development in QI and Performance Improvement through case discussions and morbidity and mortality conferences
3. Participation in the QI process where they learn to systematically analyze practice using QI methodology and implement corrective action plans.

DRESS CODE and PROFESSIONALISM

The following dress code has been established for the vascular resident.

1. The vascular resident is expected to adhere to the code, which is intended to project to patients and visitors the professionalism they expect
   a. All attire should be both clean and clean appearing
   b. Men’s Attire: Shirt and tie, slacks, white uniform jacket or coat
   c. Women’s Attire: Dresses, skirts or slacks and blouses, white uniform jackets or coats.
   d. Unacceptable Clothes: Stained, solied appearing clothes, open necked shirts, polo shirts, blue jeans, shorts, stained or dirty running shoes, sandals
   e. Operating Room Attire: Appropriate for days in the operating room, a white coat should be worn with scrubs when outside the operating room.
2. There are certain obvious exceptions to the above which include the following:
   a. When seeing patients in the Emergency/Admitting areas or while on night-call duty
   b. In the operating rooms and adjacent areas.

In all circumstances, white coats are recommended whenever direct contact with patients is anticipated.
VACATION AND LEAVE

During GY 1-3, the resident is given 4 weeks of vacation a year. The vacation is built into the rotation schedule to minimize disruption of the educational program and patient care. Requests for vacation are submitted prior to the year in which they will be received to allow for efficient scheduling. The Program Director will make every effort to accommodate specific requests.

For senior residents, 14 days of vacation are granted and 14 days are spent at conferences and activities that enhance vascular surgery maturation. The senior resident must submit, to the Program Director or Coordinator, the vacation request form at least thirty (30) days prior to the requested time off for vacations less than seven (7) days and at least ninety (90) days prior to the requested time off for vacations seven (7) or more days. Approval of vacation requests for the senior vascular resident are at the discretion of the Program Director and take into account patient care and coverage. Failure to receive approval prior to taking vacation and/or failure to return to work at the end of an approved vacation may be cause for disciplinary action that may result in termination.
VACATION REQUEST FORM
VASCULAR SURGERY PROGRAM

NAME__________________________________ DATE SUBMITTED _____________________

<table>
<thead>
<tr>
<th>Reason For Leave</th>
<th>Vacation Day(s)</th>
<th>Personal Day(s)</th>
<th>Sick Day(s)</th>
<th>Business Day(s)</th>
<th>Other</th>
</tr>
</thead>
</table>

*PLEASE DESCRIBE:  _________________________________________________________________

FIRST DATE OF REQUESTED LEAVE: _______________________ TIME: ______________

LAST DATE OF REQUESTED LEAVE: _______________________ TIME: ______________

EMPLOYEE SIGNATURE:  ______________________________

APPROVED BY:

Immediate Supervisor / Attending Faculty ____________________________ Date ______________

Administrative Director ____________________________ Date ______________

Chairman / Program Director ____________________________ Date ______________

FOR OFFICE USE ONLY

COVERAGE:  ____________________________________________________________________________________________

OTHER REQUESTS FOR SAME PERIOD:  _________________________________________________________________________

COMMENTS:  ____________________________________________________________________________________________

ACCURALS

<table>
<thead>
<tr>
<th>DAYS REMAINING</th>
<th>VACATION</th>
<th>PERSONAL</th>
<th>SICK</th>
<th>BUSINESS</th>
<th>OTHER</th>
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</table>
SUPERVISORY LINES OF RESPONSIBILITY

This section outlines the supervisory structure that should be observed for vascular residents in the USC/LAC Vascular Surgery Integrated Program. The guiding principle of this document is the vascular resident assuming a graduated level of responsibility as he/she progresses through the program.

Each training site has a dedicated faculty responsible the educational merits, ACGME compliance and overall supervision of residents at that training site. This site director will also be responsible for ensuring that similar standards in these areas are met when residents are rotating on non-surgical services. On each of the approved rotations, residents will be supervised by teaching staff in such a way as to allow progressive increase in resident responsibility according to their appropriate level of education, ability, and experience (see specific educational and clinical objectives below). The teaching staff is responsible for the care provided to every patient and for this reason it is essential that adequate and timely communication occur between the vascular surgical resident and the responsible faculty. A part of the supervision will be to ensure adherence to the ACGME mandated work hours. Any problems that arise at a training site are to be communicated to the program director and associate program director.

Residents participate in daily rounds with attending faculty at each of our teaching hospitals. During this time, the resident presents patients and pertinent findings to the attending in the presence of other members of the health care team which include students and residents. The resident directly observes and participates in the interactions of the attending faculty with the patients, their families as well as with more junior house staff. The faculty is able to directly observe patient-resident interactions, resident decision making, and resident interaction with the other members of the health care team. In addition, all surgical procedures are performed with attending supervision. As residents are afforded graduated increases in their surgical activities, the faculty supervises and ensures all aspects of the procedure are performed appropriately. Residents are expected to inform the supervising faculty of significant changes in the clinical status of any patient, all patient transfers from outside facilities and any patient requiring transfer to a critical care unit.

FACULTY SUPERVISION RESPONSIBILITIES

Faculty are expected to supervise all aspects of patient care including initial patient evaluation, diagnostic workup, operative intervention, critical care, discharge and long term ambulatory care. This supervision is provided in the context of graduated resident responsibility such that the resident is capable of the independent practice of vascular surgery at the completion of the vascular residency. Faculty are to permit increasing independence to senior residents in patient evaluation and surgical intervention commensurate with resident professional development and competency.
PROGRESSIVE RESPONSIBILITY FOR PATIENT CARE

There are a number of functional layers built into the residency program which ensure that residents are fully informed of their assignment and duties. To begin with, each rotation has specific Goals and Objectives which are distributed to the residents and made readily available in both hard copy and electronic format. Residents are also provided with expected goals and objectives differentiated by year of training. This ensures a gradual maturation of skills throughout the program and informs residents as to their expectations during each year. The program director and associate program director meet at least semi-annually with each resident to discuss and review the progress as it relates to expected maturation.

In addition, a monthly calendar is used and distributed which provides information on all mandatory educational conferences. During our weekly educational conferences the program director and associate program director meet with the residents and review the upcoming educational agenda. This includes assignments of journal club, vascular Q & A, Rutherford teaching conference, basic science and other conferences.

GY 1

The major focus of the first postgraduate year is on the preoperative and postoperative care of patients with surgical illness. The 1st year resident will be introduced to basic surgical techniques (suturing, knot tying), and basic surgical procedures (appendectomy, hernia), and be expected to achieve competence in most bedside procedures.

The first year resident is responsible for the day to day management of ward patients which includes obtaining and organizing laboratory, radiologic, and pathology data. This should be organized for service rounds so that they are efficient and the data is available for patient care decisions. The first year resident is responsible for the initial history and physical for all elective admissions as well as discharge summaries for all in-patients. They should become comfortable with bedside procedures such as central and arterial lines, chest tubes, etc. The level of decision making of the first year resident is limited. Decisions are made in consultation with the junior or senior resident and attending. As the year progresses, that decision-making may be expanded to some degree. The GY-I resident will attend the quarterly USC/LAC Vascular Surgery Program GME Committee meetings are peer selected as representatives to the Graduate Medical Education Committee. In that capacity, they are an integral part of the discussions. The vascular resident is to attend Surgery Grand Rounds and associated educational conferences in the General Surgery Program as well as specialty specific teaching conferences of each rotation.
GY 2

Second year surgical residents are expected to fully understand most elements of preoperative and postoperative care, begin the management of patients in the critical care setting and achieve competence in basic surgical techniques (suturing & knot tying). An understanding of basic surgical procedures such as appendectomy, cholecystectomy and hernia repair should be achieved.

The resident supervises and oversees the intern’s management of patients and is responsible for inpatient and emergency room consultations. The second year resident has increased involvement in the operating room. The operating room role should be at the level of surgeon on routine common general surgery problems such as hernia repair, simple bowel resections, open cholecystectomy, and in the latter part of the year, straightforward laparoscopic procedures. On more complex surgical procedures the second year resident may function as first assistant. The GY-2 resident will also learn airway management and the basics of cardiovascular anesthesia. In that capacity, the resident will be supervised by attending cardiovascular anesthesiologists. In addition, the vascular resident will be introduced to cardiovascular imaging by ultrasound, MR and CT supervised by ultrasound and body imaging radiologists. The GY-2 resident attends and participate the quarterly meetings and are an integral part of the discussions of the USC/LAC Vascular Surgery Program GME Committee. The vascular resident is to attend Surgery Grand Rounds and associated educational conferences in the General Surgery Program as well as specialty specific teaching conferences of each rotation.

GY 3

The major focus of the third postgraduate year is on achieving an understanding of preoperative decision making, operative technique and postoperative care for major elective and emergent surgical procedures including, but not limited to, alimentary, skin & soft tissue, vascular, endocrine, breast and traumatic diseases as well as the medical management of common vascular problems such as hyperlipidemia, venous thromboembolism, arthritis and atherosclerosis. The principles and diagnostics involved in the preoperative cardiac evaluation will be emphasized.

The third year resident has responsibilities which may be at a level of senior resident on the non-trauma/emergency/general surgery service to a junior resident on disciplines of surgery. In these roles the third year resident takes on increased responsibility for patient care decisions. While functioning as a senior resident, the resident makes critical decisions concerning patient care management in close consultation with the attending staff and will assist the senior residents in other surgical disciplines in formulating and implementing a therapeutic plan for patients on those respective services. While on the vascular service the vascular resident will see vascular medicine consults, formulate medical therapies, stratify patient cardiac risk for vascular procedures, interpret vascular laboratory ultrasound imaging studies and manage common vascular diseases such as atherosclerosis. The GY-3 vascular resident will attend the quarterly meetings and are an integral
part of the discussions of the USC/LAC Vascular Surgery Program GME Committee. The vascular resident is to attend Surgery Grand Rounds and associated educational conferences in the General Surgery Program as well as specialty specific teaching conferences of each rotation.

GY 4

The GY 4 resident will time in the USC Keck Hospital vascular laboratory, which is an ICAVL laboratory, interpreting the studies and providing a preliminary report prior to faculty sign off. All ultrasound based studies will be reviewed and interpreted by the vascular resident. The resident will also spend time scanning in the vascular laboratory under the supervision of the Technical director of the USC Keck Hospital vascular laboratory. In this capacity, the resident is expected to, by the end of the first year, have an appreciation and functional expertise in performance and interpretation of non-invasive vascular studies. The residents will also spend time with CT/MRI body imaging supervised by Radiology attending staff. In that role the resident will review and interpret CT and MR vascular imaging. The fourth year resident is expected to participate in all endovascular cases performed on the USC Health Sciences campus, including those cases at USC Keck Hospital and LAC+USC Medical Center as well as participate in venous outpatient procedures performed at the Vascular Surgery Pasadena office. The resident will have the primary responsibility for preoperative evaluation of the patient, developing a therapeutic plan of endovascular intervention in consultation and input of the faculty, performance of the endovascular intervention, and follow up of the patient. In addition to the above activities, the resident will provide clinical support when needed and asked for at LAC+USC Medical Center and USC Keck Hospital for care of the vascular surgery patient. The GY 4 vascular resident also spends time at Kaiser and Huntington Memorial Hospital performing both open and endovascular vascular procedures. The resident will have primary responsibility for patient care, daily rounds and supervision of junior surgical residents on vascular surgery in the Huntington Memorial Hospital and Kaiser Hospital Sunset programs. The vascular resident will work daily and receive direction in the operating room and wards from the attending vascular surgeons. The resident is responsible for organizing, with the assistance of the Vascular Lab Technical Director, the Vascular Lab Q/A Conference. The vascular resident is responsible for participating in Journal Club as assigned, presenting cases at Morbidity and Mortality and Vascular Surgery Preop conferences, participating and presenting at the Rutherford teaching conference and providing basic science lectures as assigned.

GY 5

The resident functions as the chief resident on the USC Keck Hospital and LAC+USC Medical Center vascular surgery services. In that role, the vascular resident as supervised by the attending staff has a primary responsibility for the preoperative assessment/care, the operative procedure and the postoperative care of each patient on the service. The vascular resident can expect to have a significant role in all cases in which he or she scrubs and at times serve as a
teaching assistant to junior surgical residents in simple vascular procedures. It is expected that the vascular resident will have read about the procedure prior to coming to the OR and developed a surgical plan. The vascular resident is expected to make rounds twice daily on all service patients and direct resident subordinates in the duties of patient care. The postoperative care of the patient is a primary responsibility of the vascular resident with patient care concerns promptly communicated to the appropriate attending. The vascular resident is responsible for participating in Journal Club as assigned, presenting cases at Morbidity and Mortality and Vascular Surgery Preop conferences, participating and presenting at the Rutherford teaching conference and providing basic science lectures as assigned.
A competent vascular resident must have dedication to self-study, patient care and professionalism. The residency experience is designed to promote a fundamental understanding of vascular disease that encourages lifelong learning and professional growth as a practitioner of vascular surgery.

**EDUCATIONAL GOALS**

The Program will:

1. Educate the resident to provide competent, comprehensive, quality medical care to patients with vascular disease.

2. Evaluate the competency of the resident through formative and summative methods that provide the opportunity for continuous performance improvement.

3. Provide educational opportunities that will enable the resident to acquire integrate and apply state of the art knowledge to the practice of quality, cost-effective, continuity of medical, social and behavioral care for the promotion of health and treatment of acute illness and chronic disease.

4. Provide an environment for the resident that recognizes, encourages and facilitates multidisciplinary collaboration as a critical component to professional development and clinical excellence.

5. Ensure that residents and faculty demonstrate responsiveness to patient’s needs that supersedes self interest.

6. Foster the development of core professional values by the resident such as cultural sensitivity, moral and ethical responsibility and compassionate communication skills.

7. Promote resident well being and ensure duty hour compliance.

8. Ensure resident integration and active participation in Clinical Quality Improvement and Patient Safety.

9. Assist the resident in transitioning to the practice of vascular surgery.

10. Maintain an academic curriculum and learning environment that prepares the resident for certification by the Vascular Surgery Board of the American Board of Surgery.
EDUCATIONAL OBJECTIVES

The learning objectives of the program are specifically defined in the Goals and Objectives that follow. They include patient care responsibilities, clinical teaching, and didactics. The Program ensures that resident education is not compromised by non-physician service obligations. Upon successful completion of the program the resident through summative and formative evaluation will:

1. Achieve competency in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems based practice.

2. Provide patient care that is compassionate, appropriate, and effective for the treatment of vascular disease and the promotion of health.

3. Demonstrate knowledge about established and evolving biomedical, clinical and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

4. Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.

5. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates.

6. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

7. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

8. Accomplish the learning objectives through an appropriate blend of supervised patient care responsibilities, clinical teaching and didactic educational events.

9. Achieve milestones by year of training, documenting resident attainment of educational objectives for progressive responsibility, including supervisory roles.

10. Be prepared to successfully pass the Vascular Surgery Board of the American Board of Surgery qualifying and certifying examinations.
COMPETENCY BASED OBJECTIVES OF THE VASCULAR SURGERY RESIDENCY

PATIENT CARE

1. Demonstrate the ability to gather essential and accurate patient information.
2. Make informed decisions about diagnostic and therapeutic interventions.
3. Demonstrate understanding of the medical management of hyperlipidemia, hypertension, smoking cessation and diabetes.
4. Efficiently complete and direct patient care activities.
5. Acquire clinical and technical skills as demonstrated by an appropriate diagnostic workup of vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
6. Acquire skills to care and evaluate the surgical patient.
7. Demonstrate competency in the critical care of the surgical patient including the placement of invasive lines and monitoring.

MEDICAL KNOWLEDGE & SKILLS

1. Arterial and venous pathophysiology and pathology.
2. Arterial and venous surgical anatomy and exposures.
3. Basic surgical exposures and procedures.
4. Identification and management of risk factors of atherosclerotic vascular disease.
5. Non-atherosclerotic vascular disease evaluation and management.
6. Medical management of hyperlipidemia, hypertension, smoking cessation.
8. Treatment options for vascular maladies, including endovascular therapeutics.
9. Endovascular techniques, wires, catheters, devices and stents.
10. Endovascular stent-graft repair of aneurysms and related pathology.
12. Details of vascular surgery procedures including suture, graft materials and instrumentation.
13. Pre- and postoperative care of the patient undergoing vascular surgery.
15. Surgical decision-making concerning vascular surgery problems.
17. Interpretation of diagnostic vascular studies, including duplex, physiologic testing, angiograms, CT and MR.
18. Be familiar with the principles and management involved in cardiovascular anesthesia and airway management.
19. Understanding of associated vascular diseases and medical management.
20. Perform standard noninvasive vascular tests (carotid and venous duplex).
PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and program director. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of vascular disorders is absolutely necessary. This will allow for sound surgical judgment, which relies on knowledge, rational thinking and the surgical literature.
2. Develop ability to analyze critically the literature in order to practice evidence-based medicine.
3. Complete research project on selected topic in vascular surgery and apply new knowledge to surgical practice.
4. Participate and assist in organization of daily rounds, preop conference, vascular lab conference, morbidity and mortality conference, journal club research conference and the basic science curriculum.
5. Carry out patient management decisions in consultation with attending staff.
6. Participate in general surgery resident and medical student teaching.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis.
3. Show sensitivity to patient’s culture, age, gender and disabilities.
4. Interact professionally with referring physicians, consulting physicians and other physician providers.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
3. Maintain professional interactions with other health care providers and hospital staff.
4. Provide leadership and organization of the vascular surgery clinical services.
5. Develop appropriate judgment and good communication skills.

SYSTEMS BASED PRACTICE
1. Understand how the health care organization affects vascular surgery practice.
2. Demonstrate cost effective health care.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery and Endovascular Therapy at all hospitals.
5. Completion of medical records, operative notes and other patient care related
documentation in a timely, accurate and succinct manner.
6. Understand principles of vascular surgery and vascular laboratory quality
assurance practices.

These objectives are fostered in an environment of progressively graded clinical and
operative experience and responsibility. Within the limits of variability found in a clinical
practice, an equivalent experience will be afforded each resident under the guidance
and supervision of qualified teaching staff. In so doing, the resident will exercise mature
surgical judgment and operative and endovascular skills which prepare him/her to
provide independent care to patients with vascular disease. The faculty of the USC
Division of Vascular Surgery makes the final assessment of whether these objectives
have been achieved.
GOALS AND OBJECTIVES
BY YEAR OF TRAINING

GRADUATE YEAR 1 (GY 1)

The GY 1 resident is expected, by the completion of the year, to be able to organize laboratory, radiologic, and pathologic data in a concise and coherent fashion. The individual should be able to perform an efficient and thorough history and physical examination. The GY1 house officer should, based on the history and physical examination, be able to initiate the laboratory evaluation and any other initial diagnostic studies. GY 1 should be comfortable in the preoperative preparation of the patient for surgery and routine postoperative care. The individual should be exposed to and begin to master the skills necessary to care for the ICU patient. The individual should perform, under supervision, simple procedures such as arterial lines, central lines, chest tubes, simple skin procedures, and appendectomies.

PATIENT CARE
1. Be reliable and honest.
2. Maintain a habit of efficient and organized management of patient care.
3. Involve your senior resident and attendings.
4. Obtain detailed history with high degree of accuracy.
5. Regularly perform complete and thorough physical examinations.
6. Begin to keep patient management plans and decisions for straightforward cases under the supervision of more senior residents and attendings.
7. Learn to write medically appropriate, legible and error-free orders for uncomplicated cases.
8. Maintain timely, legible, and thorough medical records.

MEDICAL KNOWLEDGE
1. Develop a general knowledge of fundamental clinical principles and facts, of basic surgical diseases not limited to: acute abdominal diseases, abdominal wall hernias, gallstone disease and soft tissue infections, including the relevant anatomy, physiology, pathology and bacteriology.
2. Understand the fundamentals of evaluating surgical risk in both the elective and emergency setting.
3. Learn the basic principles of managing these cases, including resuscitation and antibiotics.
4. Analyze available data soundly.
5. Identify straightforward problems correctly.
6. Regularly read about each surgical problem you encounter.
PRACTICE-BASED LEARNING.
1. Learn the basic laboratory evaluation of emergent and elective patients.
2. Understand the basic indications for different radiologic and interventional studies, such as CT, MRCP, HIDA scan, ERCP, EGD, Upper GI, Barium Swallow, Barium Enema, Angiogram, etc. Attempt to be present to view as many interventional or diagnostic procedures as possible.
3. Read chest X-rays and abdominal X-rays.
4. Become comfortable with the placement of naso-gastric tubes, Foley catheters.
5. Learn the basic concepts of tissue handling, suturing techniques, operating room procedures.
6. Use instruments appropriately, with even and safe movements.
7. Read about cases (pathophysiology, anatomy, and operative techniques) before you scrub in.
8. Learn to perform basic operating room procedures under close supervision, such as: skin and subcutaneous biopsies, simple appendectomies, simple hernias (open).
9. While scrubbed in on more advanced cases, as an assistant, learn to anticipate: exposure, suction, cutting, retracting, etc.
10. Participate actively in daily rounds, weekly staff rounds, weekly outpatient clinic, weekly M & M, Grand Rounds, and resident teaching conferences.
11. Develop a basic understanding of, and participate in, the evaluation of surgical literature for credibility and applicability.
12. Participate in some clinical research to develop a perception of how it is done, its potential shortcomings and its importance to the improvement in patient care.
13. Learn the essentials of obtaining consents for research trials and be able to cooperate with on-going studies.

PROFESSIONALISM
1. Be responsible and dependable.
2. Show self-initiative and integrity.
3. Understand the importance of honesty in the doctor-patient relationship and other medical interactions.
4. Be introduced to ethical issues such as informed consent, patient’s rights, end of life issues, etc.
5. Learn the basics of teaching to medical students, and ancillary health professionals.
6. Learn how to participate in discussions and become an effective part of rounds, attending staff conference, etc.
7. Maintain a presentable appearance that sets the standard for the hospital. This includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.
INTERPERSONAL RELATIONSHIPS & COMMUNICATION
1. Develop the habit of talking to patients and their families about their probable diagnosis, its implications, the recommended treatment and any operations under consideration. Keep the patient informed and up-to-date with regard to their clinical status.
2. Communicate effectively with your senior residents, attendings, other residents, and ancillary staff.
3. Restrain from conflict with your peers or ancillary staff.
4. Enhance team morale.

SYSTEMS-BASED PRACTICE
1. Pay attention to and learn from the assessment of patient care as discussed during Staff Rounds and the weekly M & M conference.
2. Be introduced to cost vs. benefit considerations, medical economics, outcomes analysis, quality improvement and medicolegal issues.
3. Begin to the practice “Evidence Based Medicine” through the use of Practice Guidelines and Clinical Pathways.

GRADUATE YEAR 2
The GY 2 resident should, over the course of the year, develop the ability to provide a coherent and concise consultation on the surgical patient for both inpatients and outpatients. The resident should be able to initiate and complete the diagnostic workup required for a particular surgical problem. The skills necessary to care for the ICU patient should be further developed including airway management. The individual should be knowledgeable with the differential diagnoses of common general surgical problems, and develop a mastery of the diagnosis of the acute abdomen. As operating surgeon, the GY 2 resident should perform, under supervision, first-time inguinal hernia repairs, ventral hernia repairs, small bowel resections, simple skin procedures, appendectomies, and other common general surgical procedures. The GY 2 resident should be introduced and participate in laparoscopic procedures.

PATIENT CARE
1. Be reliable and honest.
2. Be available and responsive to consulting services.
3. Develop appropriate judgment and involve your senior/chief resident and attendings.
4. Obtain detailed history with high degree of accuracy.
5. Regularly perform complete and thorough physical examinations.
6. Note subtle findings.
7. Make patient management plans and decisions for somewhat complex cases under the supervision of more senior residents and attendings.
8. Learn to write legible and organized consultation notes that clearly communicate your assessment and recommendations.
9. Maintain legible medical records.
10. Dictate records in a timely fashion.
MEDICAL KNOWLEDGE
1. Expand the breadth and depth of your clinical knowledge to develop a solid understanding of the evaluation and management of at least the following: acute abdominal diseases, abdominal wall hernias, gallstone disease and soft tissue infections, including the relevant anatomy, physiology, pathology and bacteriology.
2. Be familiar with the indications and complications associated specifically with basic laparoscopic surgery.
3. Be able to evaluate surgical risk in both the elective and emergency setting except for complex cases.
4. Understand the principles of airway management, cardiovascular anesthesia and intraoperative management.
5. Learn how to manage all but the most complex of these cases, including resuscitation and antibiotic therapy.
6. Regularly read about each surgical problem you encounter.

PRACTICE-BASED LEARNING
1. Learn the specific laboratory evaluation tailored to each emergent and elective scenario.
2. Provide a logical and organized analysis of data.
3. Learn to utilize diagnostic studies effectively.
4. Understand the indications and complications of different radiologic and interventional studies such as CT, MRCP, HIDA scan, ERCP, EGD, Upper GI, Barium Swallow, Barium Enema, Angiogram, vascular ultrasound etc.
5. View all ordered studies yourself.
6. Be able to read and analyze radiologic studies, such as abdominal series and CT scans.
7. Get in the habit of personally reviewing films with the attending radiologist, thus learning from each study.
8. Attempt to be present for as many interventional or diagnostic procedures as possible.
9. Become comfortable with the placement of central lines, arterial lines, chest tubes, and carry out anoscopy and rigid sigmoidoscopy under supervision.
10. Read about cases (pathophysiology, anatomy, and operative techniques) before you scrub in.
11. Learn the basic concepts of tissue handling, suturing techniques, operating room procedures
12. Use instruments appropriately, with even and safe movements.
13. Learn basic operating room procedures such as laparoscopic cholecystectomy, laparoscopic appendectomy, herniorrhaphy, drainage of abscesses, adhesiolysis, abdominal closure, etc.
14. Perform more complex open appendectomies, recurrent open hernia repairs, etc.
15. While scrubbed in on more advanced cases, as an assistant, learn to anticipate the primary surgeon’s movements.
16. Participate actively in daily Pass-On rounds, weekly Staff rounds, weekly outpatient clinic, weekly M & M, Grand Rounds, and resident teaching conferences.
16. Have a good understanding of and participate in the evaluation of surgical literature for credibility and applicability.

17. Actively participate in several clinical research projects to develop a perception of how it is done, its potential shortcomings and its importance to the improvement in patient care.

PROFESSIONALISM
1. Be responsible and dependable.
2. Show self-initiative and integrity.
3. Understand the importance of honesty in the doctor-patient relationship and other medical interactions.
4. Maintain the standards of profession, especially in your interactions with consulting services and medical students.
5. Be familiar with ethical issues such as informed consent, patient’s rights, end of life issues, etc.
6. Practice being a good teacher to interns, medical students, and ancillary health professionals.
7. Participate in discussions and become an integral part of rounds, attending staff conference, etc.
8. Maintain a presentable appearance that sets the standard for the hospital. This includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.

INTERPERSONAL RELATIONSHIPS & COMMUNICATION
1. Inform your consult patients of the reason for the surgical consult and of your surgical impression and recommendations.
2. Regularly speak to your patients and keep them abreast of the care plan for the day and/or what they should expect in the future.
3. Learn to discuss with the patient and their families, in layman’s terms, their probable diagnosis, its implications, the recommended treatment and any operations under consideration.
4. Restrain from conflict with your peers or ancillary staff.
5. Interact effectively with other team members and consulting services.
6. Enhance team morale.

SYSTEMS-BASED PRACTICE
1. Pay attention to and learn from the assessment of patient care as discussed during Staff Rounds and the weekly M & M conference.
2. Deliver patient care with an understanding of cost vs. benefit considerations, medical economics, outcome analysis, quality improvement and medicolegal issues.
3. Be practicing “Evidence Based Medicine” through the use of Practice Guidelines and Clinical Pathways.
GRADUATE YEAR 3

The GY 3 resident assumes senior level responsibility on selective services. In that capacity he or she will organize and oversee the care of patients on that service. The GY 3 should be able to perform a concise and efficient history and physical examination, initiate a diagnostic workup, and formulate a therapeutic plan. The GY 3 should become expert in performing simple general surgery procedures such as inguinal hernia repair, both initial and recurrent, laparoscopic cholecystectomy and open cholecystectomy. The resident should learn the principles of lipid management, antiplatelet and anticoagulant therapy and cardiac evaluation of the vascular surgery patient. The GY 3 resident should also begin to develop management skills to direct subordinates. They should also develop and focus on teaching skills required to educate junior residents and students.

PATIENT CARE

1. Be reliable and honest.
2. Be available and responsive to your junior residents.
3. Develop appropriate judgment and involve your attendings.
4. Obtain detailed history with high degree of accuracy.
5. Regularly perform complete and thorough physical examinations.
6. Note subtle findings.
7. Make patient management plans and decisions for complicated cases with chief resident and attending staff guidance.
8. Maintain legible medical records.
10. Be able to write medically appropriate, legible and error free orders for complex cases, including those going to the intensive care unit.
11. Practice safe patient care.

MEDICAL KNOWLEDGE

1. Develop a broad fund of clinical knowledge to include the evaluation and management of at the least the following: acute abdominal diseases, abdominal wall hernias, gallstone disease, vascular disease and soft tissue infections, including the relevant anatomy, physiology, pathology and bacteriology.
2. Be familiar with the indications and complications associated specifically with basic laparoscopic surgery and vascular surgery.
3. Be able to evaluate surgical risk in both the elective and emergency setting especially for complex cases.
4. Use mature judgment when deciding which patient is a surgical candidate.
5. Develop treatment plans for complex situations, including management in the intensive care unit.
6. Understand the medical management of vascular disease and atherosclerosis.
7. Understand hypercoaguable conditions and antiplatelet, anticoagulant therapy.
8. Regularly read about each surgical problem you encounter as well as related topics in emergency surgery and basic laparoscopy.
9. Educate the junior residents and medical students using case-based scenarios.
PRACTICE-BASED LEARNING

1. Learn specific laboratory evaluation tailored to each emergent and elective scenario.
2. Provide a logical and organized analysis of data.
3. Learn to utilize diagnostic studies effectively.
4. Understand the indications and complications of different radiologic and interventional studies such as CT, MRCP, MRA, MRV, HIDA scan, ERCP, EGD, Upper GI, Barium Swallow, Barium Enema, Angiogram, vascular ultrasound etc.
5. Be able to read and analyze radiologic studies, such as MRCP, HIDA scan, Upper GI, Barium Enema, angiogram, etc.
6. Get in the habit of personally reviewing all films.
7. Attempt to be present for key interventional or diagnostic procedures.
8. Be able to guide your junior resident through the placement of central lines, arterial lines, chest tubes, anoscopy and rigid sigmoidoscopy.
9. Be proficient in placement of Hickman catheter, percutaneous gastrostomy tubes, and endoscopy, under supervision.
10. Read about cases (pathophysiology, anatomy, operative techniques) before you scrub in.
11. Teach the basic concepts of tissue handling, suturing techniques, and operating room procedures.
12. Operate with economical and fluid maneuvers.
13. Be able to easily perform and/or guide a junior resident through basic operating room procedures such as laparoscopic cholecystectomy, laparoscopic appendectomy, herniorrhaphy, drainage of abscesses, adhesiolysis, abdominal closure, etc.
14. Perform more complex open appendectomies, recurrent open hernia repairs, etc.
15. Take command of the operation and learn to be an efficient assistant to your junior resident during appendectomies, herniorrhaphies, drainage of abscesses, abdominal closure, etc. Always think 1 or 2 steps ahead, anticipating instruments, movements, etc.
16. Learn more advanced gastrointestinal procedures such as bowel resection and anastomosis, lysis of difficult adhesions, open cholecystectomy, etc.
17. Participate actively in daily Pass-On rounds, weekly Staff rounds, weekly outpatient clinic, weekly M & M, Grand Rounds, and resident teaching conferences.
18. Develop a basic understanding of and participate in the evaluation of surgical literature for credibility and applicability.
19. Participate in some clinical research to develop a perception of how it is done, its potential shortcomings and its importance to the improvement in patient care.

PROFESSIONALISM

1. Be responsible and dependable.
2. Show self-initiative and integrity.
4. Set the standard for your team in terms of cordiality and respect toward patients, fellow residents, and ancillary staff.
5. Be familiar with ethical issues such as informed consent, patient’s rights, end of life issues, etc.
6. Effectively teach other residents, interns, medical students, and ancillary health professionals.
7. Actively participate in discussions and become a leading part of rounds, attending staff conference, etc.
8. Maintain a presentable appearance that sets the standard for the hospital. This includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.

INTERPERSONAL RELATIONSHIPS & COMMUNICATION
1. Inform your patients during daily rounds about the care plan for the day and/or what they should expect in the future.
2. Discuss with the patient and their families, in layman’s terms, their probable diagnosis, its implications, the recommended treatment and any operations under consideration.
3. Communicate effectively with your residents, attendings, other residents, and ancillary staff.
4. Restrain from conflict with your peers or ancillary staff.
5. Set the tone for team morale.
6. Interact effectively with other team members.
7. Assume additional responsibility.
8. Be able to plan, prepare for and carry out an educational presentation.

SYSTEMS-BASED PRACTICE
1. Be able to critically assess the quality of care as discussed during Staff Rounds and the weekly M & M conference.
2. Deliver patient care with an understanding of cost vs. benefit considerations, medical economics, outcome analysis, quality improvement and medicolegal issues.
3. Tailor your practice of “Evidence Based Medicine” to include the use of Practice Guidelines and Clinical Pathways.

GRADUATE YEAR 4

The resident now enters the phase of maturing as a vascular surgeon. This is accomplished by providing and integrated vascular experience in the vascular imaging, venous interventions, endovascular therapeutics and open vascular procedures. In each, clinical experience the resident will have primary patient care responsibility in consultation with the attending vascular surgeon. The resident will supervise the vascular surgery patient care team, develop therapeutic plans and critically assess vascular imaging and diagnostics.

PATIENT CARE
1. Demonstrate the ability to gather essential patient information
2. Make informed decisions about the limitations and accuracy of noninvasive ultrasound and physiologic vascular studies.
3. Acquire skills for selected noninvasive ultrasound and physiologic vascular studies.
   Make informed decisions about diagnostic and therapeutic interventions.
4. Efficiently complete and direct patient care activities
5. Acquire clinical and technical skills necessary to an understanding of the differential diagnosis, management plan, the necessary procedures and the preoperative and postoperative care required both short and long term.
6. Appropriate, effective, and empathetic for all pre- and post-operative surgical patients.
7. Take pertinent history to evaluate patients (to include risk factors, previous history and current symptomology).
8. Present pertinent positives and negatives during rounds in an organized, coherent manner.
9. Demonstrate sound judgment, understanding of disease process and develop and execute patient care plans appropriate for level including pain management.
10. Follow patients from initial consult to completion of treatment and outpatient long-term follow up.
11. Deliver compassionate and culturally sensitive care, recognizing changing needs for social support systems for patients and their families throughout their diagnostic work-up, treatment and follow-up period.

5. Receive referrals from cardiologists, pulmonologists, and primary care givers and participate in the clinical decisions concerning operative and endovascular therapy.
6. Clinical experience and decision-making concerning operative and non-operative intervention for vascular disease in the ambulatory setting.
7. Provide general preoperative cardiac, pulmonary and renal risk assessment.
8. Recognize the indications for referral to further evaluate cardiac, pulmonary and renal disease in the preoperative workup.
9. Evaluation of vascular surgery emergencies, i.e. ruptured aortic aneurysms, acute limb ischemia.

MEDICAL KNOWLEDGE & SKILLS
1. Knowledge of arterial and venous physiology
2. Knowledge of the physics of blood flow.
3. Interpretation of extremity arterial and venous physiologic studies.
4. Interpretation of carotid, renal, visceral, aortic and extremity arterial duplex studies using videotape review.
5. Interpretation of vena cava and venous duplex studies using videotape review.
7. Understand the indications, accuracy and diagnostic utility of specific noninvasive vascular tests.
8. Knowledge of statistical analysis used to assess the accuracy of vascular studies, including receiver operator curves, kappa statistic, specificity, sensitivity, positive predictive value, negative predictive value and accuracy.
9. Principles of radiation safety, including the concepts of time, distance, and shielding in limiting patient and staff radiation exposures.
11. Diagnostic angiography of the cerebral, abdominal and extremity vessels, including autobiography and demography.
12. Techniques of endovascular intervention, including balloon angioplasty, intravascular stent, stent-graft placement, thrombolysis, transcatheter occlusion, and intravascular foreign body retrieval.
13. Indications for diagnostic angiography and endovascular intervention.
14. Results and limitations of endovascular therapies.
15. Experience with percutaneous arterial and venous access, including femoral, brachial, and popliteal punctures, both retrograde and antegrade.
16. Knowledge of intravascular contrast agents; iodinated contrast, carbon dioxide, gadolinium, including dosage, use and complications.
19. Experience and proficiency in selective catheterization.
20. Use of closure devices at vascular access sites.
22. Demonstrate knowledge, skills and judgment related to his/her role in the performance of operative surgical procedures.
23. Demonstrate manual dexterity.
25. Surgical techniques:
   a. Arterial Disease
   b. Reconstructive techniques for occlusive and aneurysmal disease
   c. Embolectomy, Endarterectomy, and Thrombectomy techniques.
   d. Endovascular management of peripheral occlusive disease
   e. Diagnostic Contrast, CO2, Intra-vascular ultrasound
   f. Therapeutic Angioplasty, Stenting, Arthrectomy, Thrombolysis
   g. Endovascular management of aneurysmal disease
   h. Stenting and Embolization
   i. Vein harvest
   j. Open and endoscopic Venous Disease
   k. Percutaneous treatment of varicose veins
   l. Laser Ablation, Sclerotherapy
   m. Surgical treatment of varicose veins
   n. Stripping and stab phlebectomies
   o. Vascular access
      1. Permanent
      2. Autogenous and graft
      3. Temporary
      4. Tunnelled catheters
      5. Peritoneal Dialysis
   p. Laparoscopic placement
MEDICAL KNOWLEDGE
1. Knowledge of established and evolving clinical, epidemiological and social behavioral sciences that apply to the patient with vascular disease.
2. Demonstrate an investigatory and analytic approach to clinical situations in patients with vascular disease.
3. Know and apply the basic and clinically supportive science appropriate to the management of vascular disease.
4. Interpretation of noninvasive laboratory studies, CT scans of the thorax, abdomen/pelvis, MRI, MRA of head and neck, and diagnostic angiography.
5. Knowledge of prosthetic vascular conduits, autogenous conduits, vascular suture, and instrumentation.
6. Diagnosis and management of extracranial vascular disease including stroke, transient cerebral ischemia, reversible ischemic neurologic deficits and crescendo TIAs.
7. Techniques of extremity bypass surgery including the use of cephalic, basilic, greater and lesser saphenous veins.
8. Assessment of limb ischemia; nonoperative and operative management.
10. Perform AV access procedures.
13. Exposure to complex vascular procedures, such as redo carotid and extremity revascularization; suprarenal, thoracoabdominal aneurysms.
15. Perform cardiac, renal, pulmonary postoperative support and critical care.
17. Postoperative anticoagulation both indications and complications.
18. Diagnosis and management of deep venous thrombosis, pulmonary embolism, hypercoaguable states.

PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth
2. Participate in general surgery resident and medical student teaching
3. Develop ability to critically analyze the literature in order to practice evidence-based medicine.
4. Organize with attending input pre-procedure and post-procedure care of patients
5. Present and discuss patient management at preop vascular conference, attending rounds and morbidity and mortality conference.
6. Identify own strengths, deficiencies and limits.
7. Incorporate formative evaluation feedback into daily practice.
8. Participate in quality assurance activities.
10. Participate in clinical research
PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude.
2. Demonstrate respect, compassion and integrity to all patients.
3. Show sensitivity to patient’s culture, age, gender and disabilities.
4. Interact professionally with referring physicians and other physician providers.
5. Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
6. Demonstrate accountability to patients, society and profession.
7. Demonstrate responsiveness to patient needs that supersedes self interest.
8. Demonstrate a commitment to ethical principles, pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practices.
9. Present a professional appearance, attitude and demeanor.
10. Demonstrates effective time management and organizational skills

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with nursing, clerical and technical staff
3. Maintain professional interactions with other health care providers
4. Communicate promptly and effectively with patients, patient family members and referring physicians
5. Develop appropriate judgment and communication skills.
6. Provide patients with clear informed consent regarding procedures
7. Effective exchange of information and collaboration with patients, their families.
8. Demonstrate caring and respectful behavior when interacting with patients and/or their families.
9. Communicate effectively with patients, families and the public, across a broad range of socioeconomic and cultural backgrounds.
10. Work with the patients to incorporate patient preferences in decision making about diagnostic and therapeutic interventions.
11. Maintain timely, comprehensive and accurate medical records.
12. Participate in preoperative counseling of patients including explanation of procedures, risks, expected clinical course and outcome.

SYSTEMS BASED PRACTICE
1. Understand how an effective, efficient hospital services are organized
2. Demonstrate knowledge of the costs of patient care and technology
3. Recognize the importance of allied health care personnel
4. Follow established practices, procedures, and policies
5. Prompt completion of documentation and medical records.
6. Understand principles of quality assurance practices.
7. Demonstrate an awareness and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
8. Provide cost effective, high quality care.
9. Coordinate and work effectively in an integrated health care delivery system relevant to management of peripheral vascular disease, venous disease, and vascular access.
10. Advocate for quality patient care.
11. Participate in identifying system errors and implementing potential solutions.
12. Use information technology to optimize learning of efficient, quality patient care.
13. Access online technology to support his/her education.
14. Understand and participate in patient discharge planning and in home care.

GRADUATE YEAR 5

The final year of training will provide the vascular resident with advanced responsibility for patient care and management. The final year is for the resident to master the advanced aspects of the diagnosis and management of vascular disease. The resident will assume increased independent surgical management of vascular disease. This experience will provide ample clinical experience that will result in a vascular surgeon who is competent, compassionate, and capable of independent practice in the specialty of vascular surgery.

PATIENT CARE
1. Refine the ability to gather essential and accurate patient information in patients with vascular disease.
2. Make informed decisions about diagnostic studies, and operative and endovascular therapeutic interventions.
3. Efficiently complete and direct patient care activities.
4. Demonstrate the necessary clinical skills to evaluate a patient with vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
5. Perform a comprehensive vascular assessment and plan in the ambulatory setting.
6. Initiate appropriate diagnostic workup specific vascular diseases utilizing noninvasive and invasive diagnostic technologies.
7. Provide a comprehensive vascular assessment and plan for inpatient vascular surgery consults.
8. Evaluation of vascular surgery emergencies, i.e. ruptured aortic aneurysms, acute limb ischemia, traumatic vascular injuries.

MEDICAL KNOWLEDGE & SKILLS
1. Interpret angiograms, noninvasive vascular lab studies, CT and MR related vascular studies.
2. Understand preoperative considerations in cardiac, pulmonary and renal risk assessment.
3. Knowledge of benefits and limitations of open procedures, endovascular therapy or nonoperative management for vascular disease.
4. Demonstrate the knowledge and skills required to formulate a comprehensive treatment plan for the broad spectrum of vascular disease.
5. Perform extremity bypasses, aortic aneurysms and carotid/extracranial procedures.
6. Perform quaternary, tertiary referral complex vascular procedures such as redo limb bypasses and carotid procedures, juxta, supra and thoracoabdominal aneurysms, renal and visceral revascularization.
7. Demonstrate mastery of the skills to perform intraoperative duplex scanning and angiography.
10. Management of postoperative cardiac, pulmonary and renal systems; and anticoagulation.
11. Demonstrate the ability to monitor postoperatively various vascular reconstructions.
12. Evaluation of the patient requiring AV access.
13. Performance of AV access procedures.
14. Perform venous procedures including saphenectomy, phlebectomy, and perforator vein ligation
15. Diagnosis and treatment of neurogenic and vascular thoracic outlet syndromes.
17. Evaluate and manage patients with traumatic vascular injuries.
18. Understand the indications for arteriography in blunt and penetrating arterial injuries.
19. Diagnosis and management of compartment syndrome.
20. Diagnosis and management of extremity vascular injuries associated with orthopedic and neurologic injuries.
21. Diagnosis and management of nonatherosclerotic vascular disease such as Takayasu’s disease, arterial thrombosis and embolism, intra-arterial drug injections, and mycotic aneurysms.

PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and program director. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of vascular disorders is absolutely necessary. This will allow for sound surgical judgment, which relies on knowledge, rational thinking and the surgical literature.
2. Demonstrate the ability to analyze critically the vascular literature in order to practice evidence-based medicine.
4. Carry out patient management decisions in consultation with attending staff.
5. Participate in general surgery resident and medical student teaching.
6. Assume progressive increase in the responsibility for patient management decisions.
PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis
3. Show sensitivity to patient’s culture, age, gender and disabilities
4. Interact professionally with referring physicians, consulting physicians and other physician providers.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
3. Maintain professional interactions with other health care providers and hospital staff.
4. Provide leadership and organization of the vascular surgery service.
5. Develop appropriate judgment and good communication skills.

SYSTEMS BASED PRACTICE
1. Understand how the health care organization affects VASCULAR SURGERY practice.
2. Demonstrate cost effective health care.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and the Division of Vascular Surgery and Endovascular Therapy
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner.
GOALS AND OBJECTIVES
BY ROTATION

ROTATION: HEPATOBILIARY SERVICE LAC+USC MEDICAL CENTER GY 1

PATIENT CARE
The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to hepatobiliary surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of fellows, senior residents and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from fellows, senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for hepatobiliary patients (Central lines, arterial lines, NG tubes, Foley catheter, Hickmann catheter, ports, gastrostomy tubes).
7. The ability to effectively set priorities and coordinate the care of ill and injured hepatobiliary patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of disease processes included in hepatobiliary surgery to include signs and symptoms, diagnostic work-up, management, and potential complications for the following:
1. Acute and chronic pancreatitis
2. GI Bleeding
3. Cholelithiasis
4. Cholecystitis
5. Biliary emergencies
6. Hepatitis
7. Cirrhosis
8. Liver failure
9. Pancreatic cancer
10. Chronic liver disease
The resident will demonstrate knowledge of:
1. Hepatobiliary, pancreatic and gastrointestinal anatomy and physiology
2. Basic interpretation of cholangiograms, CT portograms, visceral angiograms, CT scans, MRI, and Pet scans.
3. Appropriate laboratory evaluation of gastrointestinal, pancreatic and hepatobiliary function.
4. Surgical technique of hernia repair, cholecystectomies,, and gastrostomy tubes.
PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of hepatobiliary patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the hepatobiliary patient at LAC+USC Medical Center.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulation

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

ROTATION: TRAUMA/CRITICAL CARE  LAC+USC MEDICAL CENTER GY 1

The scope and objectives listed below will be followed as a guideline under the supervision of senior residents, fellows and the attending surgeons.

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention to elements unique to trauma patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of fellows, senior residents and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from fellows, senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for trauma patients (Central lines, chest tubes, arterial lines, NG tubes, suturing techniques, Foley catheter).
7. The ability to effectively set priorities and coordinate the care of injured trauma patients.
8. Efficient data management and record documentation.
MEDICAL KNOWLEDGE

1. The resident will demonstrate an understanding of general trauma care to include:
   a. Airway management
   b. Trauma resuscitation and blood component management
   c. Primary, secondary and tertiary surveys
   d. Basic imaging
   e. Vascular access

2. The resident will demonstrate recognition and understanding (including presentation, evaluation, management, and potential complications of treatment) for the following:
   a. Head Injury
   b. Spinal chord injuries
   c. Neck and facial trauma
   d. Thoracic injuries
   e. Cardiac injuries
   f. Abdominal injuries
   g. Common orthopedic injuries
   h. Pelvic fractures
   i. Vascular injuries

3. The resident will demonstrate an understanding of the essential components of critical care of trauma patients to include:
   a. Pain management
   b. Blood transfusions
   c. Nutritional support
   d. Rhabdomyolysis
   e. DVT and PE prophylaxis
   f. Renal replacement therapy
   g. Organ procurement
   h. Electrolyte abnormalities and acid/base disorders
   i. Acute respiratory failure/Ventilator management
   j. Ethics and end-of-life issues
   k. Sepsis/SIRS
   l. Multiple organ dysfunction

PRACTICE-BASED LEARNING

In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of trauma patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).

8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.


10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.

11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the trauma patient at LAC+USC Medical Center.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

COLORECTAL SURGERY LAC+USC MEDICAL CENTER GY 1

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to colorectal surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents and colorectal faculty.
3. The ability to develop and implement a management plan to care for patients with guidance of senior residents and colorectal faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for colorectal patients (Central lines, hemodialysis catheters, arterial lines, NG tubes, Foley catheters, pulmonary artery lines, insertion and removal of chest tubes).
7. The ability to effectively set priorities and coordinate the care of colorectal surgery patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of:
1. Colon and Rectal Cancer: Epidemiology, preventive screening, signs/symptoms, work-up, staging and current treatments.
2. Diverticular Disease: Epidemiology, signs/symptoms, findings, clinical evaluation, treatment, and complications.
4. Inflammatory Bowel Disease/ Ulcerative Colitis: Clinical presentation, histological findings, work-up and current options including indications for and complications related to restorative proctocolectomy.
5. Crohn’s Disease: Clinical presentations, work-up, histopathology, complications, and indications for operative procedures.
6. Familial Cancer Syndromes (Familial adenomatous polyposis, Gardner syndrome, Turcot syndrome, hereditary non-polposis colorectal cancer): Genetic basis, clinical course, evaluation, current treatment options and counseling of patients.
7. Hemorrhoidal Disease: Causes, classification, complications, treatment options, and indications for operation.
9. Pelvic Floor Disorders (fecal incontinence and rectal prolapse): Symptoms, clinical findings, evaluation, and current treatment options.
10. Large and Small Bowel Obstruction: Symptoms, causes, work-up and current treatments.
12. Other Polyposis Syndromes (Peutz-Jeghers polyps, Cronkhite-Canada syndrome, juvenile polyposis): Epidemiology, clinical presentation, histology, work-up and current treatment options.
14. Malignant Anal Disease: Diagnosis and treatment options for.
15. Hidradenitis Suppurativa: Etiology and treatment options for.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of colorectal patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the colorectal patient at LAC+USC Medical Center.
PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a county medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

ORTHOPEDIC SURGERY LAC+USC MEDICAL CENTER GY 1
The scope and objectives listed below will be followed as a guideline under the supervision of senior residents, fellows and the attending surgeons.

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative orthopedic patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention to elements unique to orthopedic patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for orthopedic surgery and routine postoperative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.

6. Competency in basic procedural skills essential for caring for orthopedic patients: splinting, application of traction, debridement and irrigation of open extremity fractures, joint aspiration, immobilization of the cervical spine, assist in rehabilitation of postoperative patients.

7. The ability to effectively set priorities and coordinate the care of orthopedic patients.

8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of:

1. Anatomical structures of the skeletal system and their individual functions.
2. Radiological characteristics of histological and pathological conditions of the musculoskeletal system.
3. Pathophysiology of orthopedic disease.
4. Indications for common radiological and interventional studies used in the care of orthopedic surgery patients.
5. Evaluation and treatment of musculoskeletal trauma.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of orthopedic patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

Interpersonal and Communication Skills
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the orthopedic patient at LAC+USC Medical Center.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Orthopedic Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

CARDIAC SURGERY USC KECK HOSPITAL GY 1

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to cardiac surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of fellows, senior residents and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from fellows, senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for cardiac patients (Central lines, arterial lines, insertion and removal of chest tubes and foley catheters, removal of pacing wires, intra-aortic balloon pumps, harvesting of saphenous vein conduits, removal of intra-aortic balloon pumps).
7. The ability to effectively set priorities and coordinate the care of ill and injured cardiac patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of:
1. Anatomy of the heart and great vessels.
2. Cardiac physiology.
4. Cardiologic conditions: (Stable/unstable angina, palpitations or arrhythmias, heart murmurs, peripheral edema, hepatomegaly, carotid bruises and signs of neurological dysfunction, peripheral vascular disease, renal failure, cardiogenic shock, malignant cardiac arrhythmias)
5. Appropriate clinical, laboratory, and diagnostic evaluation of cardiovascular and pulmonary function: (chest Xrays, Electrocardiograms, echocardiology, cardiac catheterization, angiography, Duplex scan, CT scan, MRI).
6. Mechanical and pharmacologic support: (inotropes, nitroprusside, nitroglycerine, intra-aortic balloon pump, ventricular assist devices, pacemakers).
7. Potential complications following cardiac surgery.
8. Tissue handling and suture techniques.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of cardiac patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at Keck Hospital (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).

8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.


10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.

11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:

1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the tumor endocrine breast patient at Keck Hospital.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:

1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:

1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Cardiothoracic Surgery at Keck Hospital.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

VASCULAR SURGERY USC KECK HOSPITAL GY 1

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:

1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to vascular surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of fellows, senior residents and faculty (noninvasive peripheral vascular physiologic testing, angiography, ultrasound, CT scan, MRI).
3. The ability to develop and implement a management plan to care for patients with guidance from fellows, senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for vascular patients (Central lines, hemodialysis catheters, arterial lines, NG tubes, Foley catheters, pulmonary artery lines, insertion and removal of chest tubes, pacing wires, intra-aortic balloon pumps, harvesting of greater saphenous veins and wound closure).
7. The ability to effectively set priorities and coordinate the care of ill and injured vascular patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of disease processes included in vascular surgery to include signs and symptoms, diagnostic work-up, management, and potential complications for the following:

1. Aneurysmal Disease
2. Peripheral Vascular Disease
3. Renovascular Disease
4. Visceral Ischemia
5. Cerebrovascular Disease
6. Thoracic Outlet Syndrome
7. Diabetic Foot Problems
8. Complications of Vascular Therapy
9. Vascular Trauma
10. Venous Thromboembolic Disease
11. Chronic Venous Insufficiency
12. Lymphatic Disease
13. Extremity Amputation
14. Arteriovenous Fistulae and Malformations
In addition, the resident will demonstrate knowledge of:
1. Vascular access techniques
2. Vascular anatomy and physiology
3. Vascular interventions

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of vascular patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at USC Keck Hospital (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the vascular patient at USC Keck Hospital.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at USC Keck Hospital
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

THORACIC SURGERY LAC+USC MEDICAL CENTER GY 1

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination for patients with attention to elements specific to thoracic/foregut patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from fellows, senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for surgical patients (Central lines, arterial lines, NG tubes, Foley catheter, Hickman catheters, bronchoscopy, endoscopy, chest tubes, and percutaneous gastrostomy tubes).
7. The ability to effectively set priorities and coordinate the care of thoracic/foregut patients.
8. Efficient data management and record documentation.
MEDICAL KNOWLEDGE

The resident will demonstrate recognition and understanding of the following:

1. Non-cardiac thoracic, esophageal, and upper gastrointestinal anatomy and physiology.
2. Indications for common radiological and diagnostic studies used in the care of thoracic/foregut patients such as plain chest X-rays, CT scans, PFTs, VQ scan, pulmonary stress testing, bronchoscopy, EUS, MRI, PET scans, esophageal manometry and pH testing.
3. Pathophysiology, evaluation, management, operative procedure and potential complications for the following benign thoracic disorders:
   a. Hamartoma
   b. Lung scar
   c. Lung abscess
   d. TB lesion
   e. Mediastinal cyst
   f. Esophageal leiomyoma
   g. GERD
   h. Barrett’s esophagus
   i. Achalasia
4. Pathophysiology, evaluation, management, operative procedure and potential complications for lung cancer.
8. Pathophysiology, evaluation, management, operative procedure and potential complications for esophageal cancer.
11. Role that Barrett’s esophagus plays in the pathophysiology of esophageal adenocarcinoma.
12. Pathophysiology, evaluation, management, operative procedure and potential complications for the following mediastinal masses:
   a. Thymoma
   b. Lymphoma
   c. Germ Cell Tumors
   d. Neurogenic tumors
   e. Mediastinal cysts
13. Surgical approaches used for common thoracic/foregut procedures.
14. Tissue handling and suture techniques.

PRACTICE-BASED LEARNING

In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of surgical patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at USC Keck Hospital and LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the surgical patient at USC Keck Hospital and LAC+USC Medical Center.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a hospital setting.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects surgical practice.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at USC Keck Hospital and LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

SURGICAL CRITICAL CARE USC KECK HOSPITAL GY 2

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention to elements unique to critically ill patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents, fellows and faculty.
4. The ability to round, review labs and films and communicate with the consulting service throughout the day.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for critically ill patients: (Central lines, pulmonary artery lines, arterial lines, insertion and removal of chest tubes, intravenous catheters, venipuncture, Foley Catheters, NG tubes)
7. The ability to effectively set priorities and coordinate the care of critically ill patients.
8. Efficient data management and record documentation.
9. Support ongoing basic and clinical science protocols.
10. Support process improvement protocols within the ICU.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of:
1. Full evaluation and consultation on all new patients (post-op, readmit from floor, readmit from home, transfers from outside facilities).
2. Diagnosis and stabilization for patients with impending organ failure: respiratory, cardiac, neurological, hepatic, gastrointestinal, hematological, renal, etc.).
3. Cardiopulmonary resuscitation. 
4. Diagnosis and prevention of hemodynamic instability.
5. Treatment for cardiogenic, traumatic, hypovolemic, and distributive shock.
6. Treatment for life-threatening electrolyte and acid-base disturbances.
7. Use of data from appropriate invasive and noninvasive monitoring devices to titrate therapy.
8. Basic infection control techniques.
9. Basic nutritional support principles.
10. Basic sedation and analgesia principles.
11. Basic concepts of therapeutic decision making and medication safety.
12. Ethical issues and patients’ wishes while making treatment decisions.
13. Basic compensation methodologies for critical care services.
14. Institutional and unit policies and procedures as well as regulatory policies from accreditors, regulators, and payers.
15. Basic methods for searching, reviewing, and evaluating the medical and scientific literature.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of critically ill patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at USC Keck Hospital (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the critically ill patient at USC Keck Hospital.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:

1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:

1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at USCKeck Hospital.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

TRAUMA/CRITICAL CARE LAC+USC MEDICAL CENTER GY 2
The scope and objectives listed below will be followed as a guideline under the supervision of senior residents, fellows and the attending surgeons.

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:

1. The ability to take an accurate history and perform an appropriate physical examination with attention to elements unique to trauma patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents, fellows and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.

6. Competency in basic procedural skills essential for caring for trauma patients (Central lines, chest tubes, arterial lines, NG tubes, suturing techniques, Foley catheter).

7. The ability to effectively set priorities and coordinate the care of injured trauma patients.

8. Efficient data management and record documentation.

9. The ability to adequately manage patients in the Intensive Care Unit.

MEDICAL KNOWLEDGE

1. The resident will demonstrate an understanding of general trauma care to include:
   a. Airway management
   b. Trauma resuscitation and blood component management
   c. Primary, secondary and tertiary surveys
   d. Basic imaging
   e. Vascular access

2. The resident will demonstrate recognition and understanding (including presentation, evaluation, management, and potential complications of treatment) for the following:
   a. Head Injury
   b. Spinal chord injuries
   c. Neck and facial trauma
   d. Thoracic injuries
   e. Cardiac injuries
   f. Abdominal injuries
   g. Common orthopedic injuries
   h. Pelvic fractures
   i. Vascular injuries

3. The resident will demonstrate an understanding of the essential components of critical care of trauma patients to include:
   a. Pain management
   b. Blood transfusions
   c. Nutritional support
   d. Rhabdomyolysis
   e. DVT and PE prophylaxis
   f. Renal replacement therapy
   g. Organ procurement
   h. Electrolyte abnormalities and acid/base disorders
   i. Acute respiratory failure/Ventilator management
   j. Ethics and end-of-life issues
   k. Sepsis/SIRS
   l. Multiple organ dysfunction

In addition, the resident will demonstrate:

1. An understanding of the indications for operative interventions.
2. The ability to plan operative approaches.
3. An understanding of operative techniques.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of trauma patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the trauma patient at LAC+USC Medical Center.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

THORACIC SURGERY USC KECK HOSPITAL GY 2

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination for patients with attention to elements specific to thoracic/foregut patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents, fellows and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for surgical patients (Central lines, arterial lines, NG tubes, Foley catheter, Hickman catheters, bronchoscopy, endoscopy, chest tubes, and percutaneous gastrostomy tubes).
7. The ability to effectively set priorities and coordinate the care of thoracic/foregut patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of the following:
1. Non-cardiac thoracic, esophageal, and upper gastrointestinal anatomy and physiology.
2. Indications for common radiological and diagnostic studies used in the care of thoracic/foregut patients such as plain chest X-rays, CT scans, PFTs, VQ scan, pulmonary stress testing, bronchoscopy, EUS, MRI, PET scans, esophageal manometry and pH testing.
3. Pathophysiology, evaluation, management, operative procedure and potential complications for the following benign thoracic disorders:
   a. Hamartoma
   b. Lung scar
   c. Lung abscess
   d. TB lesion
   e. Mediastinal cyst
   f. Esophageal leiomyoma
   g. GERD
   h. Barrett’s esophagus
   i. Achalasia
4. Pathophysiology, evaluation, management, operative procedure and potential complications for lung cancer.
8. Pathophysiology, evaluation, management, operative procedure and potential complications for esophageal cancer.
11. Role that Barrett’s esophagus plays in the pathophysiology of esophageal adenocarcinoma.
12. Pathophysiology, evaluation, management, operative procedure and potential complications for the following mediastinal masses:
   a. Thymoma
   b. Lymphoma
   c. Germ Cell Tumors
   d. Neurogenic tumors
   e. Mediastinal cysts
13. Surgical approaches used for common thoracic/foregut procedures.
14. Tissue handling and suture techniques.

**PRACTICE-BASED LEARNING**

In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of surgical patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at USC Keck Hospital (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the surgical patient at USC Keck Hospital.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a hospital setting.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects surgical practice.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at USC Keck Hospital.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

**VASCULAR SURGERY USC KECK HOSPITAL GY 2**

**PATIENT CARE**
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:

1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to vascular surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty (noninvasive peripheral vascular physiologic testing, angiography, ultrasound, CT scan, MRI).
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents, fellows and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for vascular patients (Central lines, hemodialysis catheters, arterial lines, NG tubes, Foley catheters, pulmonary artery lines, insertion and removal of chest tubes, pacing wires, intra-aortic balloon pumps, harvesting of greater saphenous veins and wound closure).
7. The ability to effectively set priorities and coordinate the care of ill and injured vascular patients.
8. Efficient data management and record documentation.

**MEDICAL KNOWLEDGE**
The resident will demonstrate comprehensive knowledge of the medical, operative and interventional therapies for vascular disease to include:

1. Aneurysmal Disease
2. Peripheral Vascular Disease
3. Renovascular Disease
4. Visceral Ischemia
5. Cerebrovascular Disease
6. Thoracic Outlet Syndrome
7. Diabetic Foot Problems
8. Complications of Vascular Therapy
9. Vascular Trauma
10. Venous Thromboembolic Disease
11. Chronic Venous Insufficiency
12. Lymphatic Disease
13. Extremity Amputation
14. Arteriovenous Fistulae and Malformations

In addition, the resident will demonstrate knowledge of:
1. Vascular access techniques
2. Vascular anatomy and physiology
3. Vascular interventions
4. Therapeutic options for the treatment of occlusive and non-occlusive peripheral vascular disease

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of vascular patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the vascular patient at USC Keck Hospital.
PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:

1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients' culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:

1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at USC Keck Hospital.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

CARDIAC SURGERY USC Keck Hospital GY 2

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:

1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to cardiac surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents, fellows and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for cardiac patients (Central lines, pulmonary artery lines, arterial lines, insertion and removal of chest tubes, pacing wires, intra-aortic balloon pumps, harvesting of greater saphenous veins and wound closure, open lung biopsies, mediastinotomies, closure of mediastinal wounds, cannulation and decannulation for cardiopulmonary bypass).

7. The ability to first assist cardiothoracic surgical procedures.

8. The ability to effectively set priorities and coordinate the care of ill and injured cardiac patients.

9. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of:

1. Anatomy of the heart and great vessels.
2. Cardiac physiology.
4. Cardiologic conditions: (Stable/unstable angina, palpitations or arrhythmias, heart murmurs, peripheral edema, hepatomegaly, carotid bruises and signs of neurological dysfunction, peripheral vascular disease, renal failure, cardiogenic shock, malignant cardiac arrhythmias)
5. Appropriate clinical, laboratory, and diagnostic evaluation of cardiovascular and pulmonary function: (chest Xrays, Electrocardiograms, echocardiology, cardiac catheterization, angiography, Duplex scan, CT scan, MRI).
6. Cardiac surgical procedures: (coronary artery bypass grafting, adult valvular repair and replacement, resection of ventricular aneurysms, penetrating cardiac or great vessel injury.
7. Mechanical and pharmacologic support: (inotropes, nitroprusside, nitroglycerine, intra-aortic balloon pump, ventricular assist devices, pacemakers).
8. Potential complications following cardiac surgery.
9. Techniques of entry into the mediastinum and cardiopulmonary bypass.
10. Tissue handling and suture techniques.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of cardiac patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at USC Keck Hospital (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the cardiac surgery patients at USC Keck Hospital.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Cardiothoracic Surgery at USC Keck Hospital.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

ANESTHESIA USC KECK HOSPITAL GY 2

PATIENT CARE
The resident will demonstrate the following:
1. Appropriate management of the airway in adults and children, employing appropriate:
   a. Physical maneuvers
   b. Oral/nasal support devices
   c. Suctioning techniques to maintain clear airway
2. Performance of nasal and oral intubation.
3. Recognition of the signs and symptoms and the treatment of complications due to anesthetic agents such as:
   a. Cardiovascular collapse
   b. Acute metabolic disturbances
   c. Malignant hyperthermia
4. Appropriate preoperative assessment of patients.
5. Recognition of the risks and possible side effects of drugs used for pain control.
6. Written orders for preparation of patients for administration of anesthesia.

MEDICAL KNOWLEDGE
The resident will demonstrate:
1. Understanding preanesthesia assessment:
   a. History and physical examination
      (1) Effects of acute or chronic diseases, with specific emphasis on cardiovascular pulmonary and neurological diseases.
      (2) Effects of chronic medications
      (3) Effects of preoperative medications
   b. Physical examination and history specific for anesthetics
      (1) Airway anatomy
      (2) Skeletal deformities
      (3) Neuromuscular diseases
      (4) Aspiration risk
      (5) How to evaluate malignant hypothermia
   c. American Society of Anesthesiology class and physical status code
2. Understanding the essential elements of the preanesthesia assessment, including:
   a. Targeted history and physical examination (review of systems with attention to cardiovascular and pulmonary disease)
      (1) Effects of chronic medications (such as Coumadin, insulin)
      (2) Effects of preoperative medications (such as Demerol, atropine)
      (3) Effects of postoperative medications (such as antihypertensives, antiemetics)
   b. Anatomic and physiologic variables germane to anesthetic success:
(1) Airway anatomy  
(2) Skeletal deformities  
(3) Neuromuscular diseases (malignant hyperthermia [MH] history)  
(4) Aspiration risk (pregnancy, scleroderma, hiatal hernia)

c. Assigned Anesthesia Society of America class and physical status:  
(1) No organic disease  
(2) Mild to moderate systemic disease  
(3) Severe systemic disorders  
(4) Severe system disturbance; life threatening  
(5) Patient is moribund with little chance of survival

3. Understanding major pharmacological characteristics of anesthetic agents:  
   a. Volatile anesthetic agents  
   b. Opioids  
   c. Sedative-hypnotic  
   d. Local anesthetics

4. Understanding monitoring of patients for anesthetic:  
   a. Standard American Society of Anesthesiology monitoring  
   b. Use of invasive monitoring, such as A-Line, CVP, and Swan-Ganz catheters

5. Understanding the principles of administration and the effectiveness of the following methods of anesthesia:  
   a. General  
   b. Spinal  
   c. Regional  
   d. Local

6. Understanding the potential complications associated with the use of regional anesthesia, including:  
   a. Decreased respiratory depression  
   b. Diminished systemic effects (liver and renal toxicity)

7. Understanding the potential complications associated with the use of regional anesthesia, including:  
   a. Spinal anesthetics (headache, cerebrospinal fluid [CSF] leak, meningitis)  
   b. Regional nerve blocks (perineural hematomas)

8. Understanding the indications for the use of muscle relaxants.

9. Understanding the techniques and potential complications of managing an airway, including endotracheal and nasotracheal intubation.

10. Understanding when to use general anesthesia vs. regional and the complications and advantages of both techniques.

11. Understanding the most common immediate postoperative anesthetic issues:  
   a. Airway stability  
   b. Ventilation and oxygenation  
   c. Pain control  
   d. Nausea and vomiting  
   e. Temperature regulation  
   f. Hemodynamic stability
PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of anesthesia.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
6. Participate in weekly Residents Core Curriculum.
7. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Act with honor and integrity in professional and personal life.
3. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
4. Model good leadership in interactions with others and demonstrate a professional attitude.
5. Show sensitivity to patients’ culture, age, gender, and disabilities.
6. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the practice of anesthesiology.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Anesthesiology at USC Keck Hospital.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

CARDIAC SURGERY LAC+USC MEDICAL CENTER GY 2

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to cardiac surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents, fellows and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for cardiac patients (Central lines, pulmonary artery lines, arterial lines, insertion and removal of chest tubes, pacing wires, intra-aortic balloon pumps, harvesting of greater saphenous veins and wound closure, open lung biopsies, mediastinotomies, closure of mediastinal wounds, cannulation and decannulation for cardiopulmonary bypass).
7. The ability to first assist cardiothoracic surgical procedures.
8. The ability to effectively set priorities and coordinate the care of ill and injured cardiac patients.
9. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of:
1. Anatomy of the heart and great vessels.
2. Cardiac physiology.
4. Cardiologic conditions: (Stable/unstable angina, palpitations or arrhythmias, heart murmurs, peripheral edema, hepatomegaly, carotid bruises and signs of neurological dysfunction, peripheral vascular disease, renal failure, cardiogenic shock, malignant cardiac arrhythmias)
5. Appropriate clinical, laboratory, and diagnostic evaluation of cardiovascular and pulmonary function: (chest Xrays, Electrocardiograms, echocardiology, cardiac catheterization, angiography, Duplex scan, CT scan, MRI).
6. Cardiac surgical procedures: (coronary artery bypass grafting, adult valvular repair and replacement, resection of ventricular aneurysms, penetrating cardiac or great vessel injury.

7. Mechanical and pharmacologic support: (inotropes, nitroprusside, nitroglycerine, intra-aortic balloon pump, ventricular assist devices, pacemakers).

8. Potential complications following cardiac surgery.

9. Techniques of entry into the mediastinum and cardiopulmonary bypass.

10. Tissue handling and suture techniques.

PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.

2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.

3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.

4. Appropriately receive and respond to constructive criticism.

5. Utilize current literature resources to obtain up-to-date information in the care of cardiac patients and practice evidence-based medicine.

6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.

7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).

8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.


10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.

11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:

1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.

2. Collaborate effectively as a member of the health care delivery team.

3. Develop and sustain therapeutic relationships with patients and others.

4. Respect patients’ right to privacy.

5. Understand the special psychosocial needs of the cardiac surgery patient at LAC+USC Medical Center.
PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Cardiothoracic Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

THORACIC SURGERY LAC+USC MEDICAL CENTER GY 3

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination for patients with attention to elements specific to thoracic/foregut patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents, fellows and faculty.
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for surgical patients (Central lines, arterial lines, NG tubes, Foley catheter, Hickman catheters, bronchoscopy, endoscopy, chest tubes, and percutaneous gastrostomy tubes).
7. The ability to effectively set priorities and coordinate the care of thoracic/foregut patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate recognition and understanding of the following:
1. Non-cardiac thoracic, esophageal, and upper gastrointestinal anatomy and physiology.
2. Indications for common radiological and diagnostic studies used in the care of thoracic/foregut patients such as plain chest X-rays, CT scans, PFTs, VQ scan, pulmonary stress testing, bronchoscopy, EUS, MRI, PET scans, esophageal manometry and pH testing.
3. Pathophysiology, evaluation, management, operative procedure and potential complications for the following benign thoracic disorders:
   a. Hamartoma
   b. Lung scar
   c. Lung abscess
   d. TB lesion
   e. Mediastinal cyst
   f. Esophageal leiomyoma
   g. GERD
   h. Barrett’s esophagus
   i. Achalasia
4. Pathophysiology, evaluation, management, operative procedure and potential complications for lung cancer.
8. Pathophysiology, evaluation, management, operative procedure and potential complications for esophageal cancer.
11. Role that Barrett’s esophagus plays in the pathophysiology of esophageal adenocarcinoma.
12. Pathophysiology, evaluation, management, operative procedure and potential complications for the following mediastinal masses:
   a. Thymoma
   b. Lymphoma
   c. Germ Cell Tumors
   d. Neurogenic tumors
   e. Mediastinal cysts
13. Surgical approaches used for common thoracic/foregut procedures.
14. Tissue handling and suture techniques.
PRACTICE-BASED LEARNING
In order to promote personal growth and self-awareness, residents are expected to:

1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.
4. Appropriately receive and respond to constructive criticism.
5. Utilize current literature resources to obtain up-to-date information in the care of surgical patients and practice evidence-based medicine.
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.
11. Participate in student teaching.

INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:

1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the surgical patient at LAC+USC Medical Center.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:

1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a hospital setting.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects surgical practice.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.

VASCULAR SURGERY LAC+USC MEDICAL CENTER GY 3

PATIENT CARE
The resident will provide patient care that is appropriate, effective, and empathetic for all pre- and post-operative surgical patients. The resident will demonstrate:
1. The ability to take an accurate history and perform an appropriate physical examination with attention elements unique to vascular surgery patients.
2. Initiation and appropriate evaluation of laboratory and diagnostic studies with the guidance of senior residents and faculty (noninvasive peripheral vascular physiologic testing, angiography, ultrasound, CT scan, MRI).
3. The ability to develop and implement a management plan to care for patients with guidance from senior residents and faculty.
4. Proficiency in the preoperative preparation of patients for surgery and routine post-operative care.
5. The ability to counsel and educate patients and their families, perform services to treat and prevent health problems, and work with other health care professionals to achieve these goals.
6. Competency in basic procedural skills essential for caring for vascular patients (Central lines, hemodialysis catheters, arterial lines, NG tubes, Foley catheters, pulmonary artery lines, insertion and removal of chest tubes, pacing wires, intra-aortic balloon pumps, harvesting of greater saphenous veins and wound closure).
7. The ability to effectively set priorities and coordinate the care of ill and injured vascular patients.
8. Efficient data management and record documentation.

MEDICAL KNOWLEDGE
The resident will demonstrate comprehensive knowledge of the medical, operative and interventional therapies for vascular disease to include:
1. Aneurysmal Disease
2. Peripheral Vascular Disease  
3. Renovascular Disease  
4. Visceral Ischemia  
5. Cerebrovascular Disease  
6. Thoracic Outlet Syndrome  
7. Diabetic Foot Problems  
8. Complications of Vascular Therapy  
9. Vascular Trauma  
10. Venous Thromboembolic Disease  
11. Chronic Venous Insufficiency  
12. Lymphatic Disease  
13. Extremity Amputation  
14. Arteriovenous Fistulae and Malformations  

In addition, the resident will demonstrate knowledge of:  
1. Vascular access techniques  
2. Vascular anatomy and physiology  
3. Vascular interventions  
4. Therapeutic options for the treatment of occlusive and non-occlusive peripheral vascular disease  

PRACTICE-BASED LEARNING  
In order to promote personal growth and self-awareness, residents are expected to:  
1. Demonstrate the skills of self-education and life-long learning to actively set clear learning goals, pursue them, and apply the knowledge gained to the practice of surgery.  
2. Investigate and evaluate their own patient care practices and take appropriate steps to address any problems identified.  
3. Define the limits of his or her personal knowledge and experience and seek help and advice when needed.  
4. Appropriately receive and respond to constructive criticism.  
5. Utilize current literature resources to obtain up-to-date information in the care of vascular patients and practice evidence-based medicine.  
6. Critically review scientific and surgical literature in order to evaluate new data in a meaningful way.  
7. Reflect on the social and community contexts of health care and effectively respond to the factors that influence patients at LAC+USC Medical Center (sociocultural, familial, psychological, legal, economic, environmental, political, and spiritual).  
8. Assume responsibility for addressing gaps in his/her knowledge and use information technology and simulation to support his/her learning.  
10. Participate in daily rounds, weekly M&M conference and other resident teaching conferences and utilize information to further improve patient care.  
11. Participate in student teaching.
INTERPERSONAL AND COMMUNICATION SKILLS
Residents must demonstrate appropriate interpersonal and communication skills. The resident is expected to:
1. Listen and communicate clearly with patients, families, and health care team members using effective verbal, non-verbal, and writing skills.
2. Collaborate effectively as a member of the health care delivery team.
3. Develop and sustain therapeutic relationships with patients and others.
4. Respect patients’ right to privacy.
5. Understand the special psychosocial needs of the vascular patient at LAC+USC Medical Center.

PROFESSIONALISM
Residents must demonstrate accountability to the profession and altruism in interactions with patients, families, colleagues, faculty, and staff. The resident is expected to:
1. Demonstrate caring and respectful compassion for patients, families and other members of the health care team.
2. Demonstrate a commitment to the discipline of surgery, patients, and society.
3. Act with honor and integrity in professional and personal life.
4. Demonstrate a mature and professional approach to ethical issues commonly encountered in a medical center.
5. Model good leadership in interactions with others and demonstrate a professional attitude.
6. Show sensitivity to patients’ culture, age, gender, and disabilities.
7. Understand issues related to consent.

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of the larger health care system. Residents are expected to:
1. Understand how the health care organization affects the surgical practice for surgical patients.
2. Coordinate quality health care including discharge planning, social services, rehabilitation, and long term care.
3. Understand the issues surrounding access to health care.
5. Understand how his/her patient care practices affect other health care providers, organizations and society.
6. Practice cost effective health care and resource allocation.
7. Follow established practices, procedures, and policies of the Department of Surgery at LAC+USC Medical Center.
8. Maintain complete and legible patient care related documentation and protect information as determined by HIPAA regulations.
ENDOVASCULAR/VENOUSTHERAPEUTICS GY 5

PATIENT CARE
1. Demonstrate the ability to gather essential and accurate patient information necessary for safe endovascular interventions.
2. Make informed decisions about diagnostic and therapeutic endovascular interventions.
3. Efficiently complete and direct patient care activities related to endovascular/venous therapy.
4. Acquire clinical and technical skills necessary to correctly guide endovascular/venous therapy including an understanding of the differential diagnosis, management plan, the necessary endovascular procedures and the preoperative and postoperative care required both short and long term.

MEDICAL KNOWLEDGE & SKILLS
1. Principles of radiation safety, including the concepts of time, distance, and shielding in limiting patient and staff radiation exposures.
3. Diagnostic angiography of the cerebral, abdominal and extremity vessels, including angiography and demography.
4. Techniques of endovascular intervention, including balloon angioplasty, intravascular stent, stent-graft placement, thrombolysis, transcatheter occlusion, intravascular foreign body retrieval, venous ablation, sclerotherapy.
5. Indications for diagnostic angiography and endovascular intervention.
6. Results and limitations of endovascular therapies.
7. Experience with percutaneous arterial and venous access, including femoral, brachial, and popliteal punctures, both retrograde and antegrade.
8. Knowledge of intravascular contrast agents; iodinated contrast, carbon dioxide, gadolinium, including dosage, use and complications.
11. Experience and proficiency in selective catheterization.
12. Use of closure devices at vascular access sites.
13. Knowledge of the complications of vascular access and endovascular/venous interventions, and experience with management of complications.
14. Knowledge of sclerotherapy agents, dosage, administration and complications.

PRACTICE BASED LEARNING
1. Personal program of self-study in endovascular therapy with guidance from the teaching staff and director of endovascular therapies. This includes attending endovascular symposia, textbook review and journal reading such that an understanding of endovascular diagnosis and management of vascular disorders emerges. This allows for sound judgment concerning the application and limitations of endovascular therapy.
2. Develop ability to critically analyze the endovascular literature in order to practice evidence-based medicine.
3. Organize with attending input pre-procedure and post-procedure care of patients undergoing endovascular procedures.
4. Present and discuss endovascular patient management at preop vascular conference, attending rounds and morbidity and mortality conference.
5. Carry out patient management decisions in consultation with attending staff.
6. Participate in resident and medical student teaching.

PROFESSIONALISM
1. Provide compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis.
3. Show sensitivity to patient's culture, age, gender and disabilities
4. Interact in a professional manner with referring physicians, consulting physicians and other physician providers.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with angiographic health care personnel (nurses, clerical, technical staff).
3. Maintain professional interactions with other health care providers and hospital staff.
4. Provide leadership and organization of patients' receiving endovascular interventions.
5. Develop appropriate judgment and communication skills.
6. Provide patients with clear informed consent regarding endovascular procedures.

SYSTEMS BASED PRACTICE
1. Understand the organization of the angiography suite and OR endovascular suite.
2. Demonstrate cost effective endovascular care by being knowledgeable in the costs of endovascular devices and pharmaceuticals.
3. Know how to partner with angiography directors, nurses and technologists in order to provide optimal delivery of endovascular care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery concerning endovascular therapy.
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner.
Understand principles of endovascular therapy and quality assurance practices.
USC KECK HOSPITAL- VASCULAR SURGERY GY 4

PATIENT CARE
1. Refine the ability to gather essential and accurate patient information in patients with vascular disease.
2. Make informed decisions about diagnostic studies, and operative and endovascular therapeutic interventions.
3. Efficiently complete and direct patient care activities of the USC Keck Hospital vascular surgery service.
4. Demonstrate the necessary clinical skills to evaluate a patient with vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
5. Perform a comprehensive vascular assessment and plan in the ambulatory setting.
6. Initiate appropriate diagnostic workup specific vascular diseases utilizing noninvasive and invasive diagnostic technologies.

MEDICAL KNOWLEDGE & SKILLS
1. Interpret angiograms, noninvasive vascular lab studies, CT and MR related vascular studies.
2. Understand preoperative considerations in cardiac, pulmonary and renal risk assessment.
3. Knowledge of benefits and limitations of open procedures, endovascular therapy or nonoperative management for vascular disease.
4. Demonstrate the knowledge and skills required to formulate a comprehensive treatment plan for the broad spectrum of vascular disease.
5. Perform extremity bypasses, aortic aneurysms and carotid/extracranial procedures.
6. Perform quaternary, tertiary referral complex vascular procedures such as redo limb bypasses and carotid procedures, juxta, supra and thoracoabdominal aneurysms, renal and visceral revascularization.
7. Demonstrate mastery of the skills to perform intraoperative duplex scanning and angiography.
10. Management of postoperative cardiac, pulmonary and renal systems; and anticoagulation.
11. Demonstrate the ability to monitor postoperatively various vascular reconstructions.
12. Evaluation of the patient requiring AV access.
13. Performance of AV access procedures.
14. Perform venous procedures including saphenectomy, phlebectomy, and perforator vein ligation.
15. Diagnosis and treatment of neurogenic and vascular thoracic outlet syndromes.
PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and program director. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of vascular disorders is absolutely necessary. This will allow for sound surgical judgment, which relies on knowledge, rational thinking and the surgical literature.
2. Demonstrate the ability to analyze critically the vascular literature in order to practice evidence-based medicine.
4. Carry out patient management decisions in consultation with attending staff.
5. Participate in general surgery resident and medical student teaching.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis.
3. Show sensitivity to patient’s culture, age, gender and disabilities.
4. Interact professionally with referring physicians, consulting physicians and other physician providers.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
3. Maintain professional interactions with other health care providers and USC Keck Hospital staff.
4. Provide leadership and organization of the USC Keck Hospital vascular surgery service.
5. Develop appropriate judgment and good communication skills.

SYSTEMS BASED PRACTICE
1. Understand how the health care organization of an academic medical center affects VASCULAR SURGERY practice.
2. Demonstrate cost effective health care.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery at USC Keck Hospital.
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner.
6. Understand principles of USC Keck Hospital vascular surgery Q&A practices.
LAC+USC MEDICAL CENTER VASCULAR SURGERY GY 4

PATIENT CARE
1. Demonstrate a mastery of the ability to gather essential and accurate patient information in patients with vascular disease.
2. Make informed decisions in consultation with attending staff about diagnostic studies, and operative and endovascular therapeutic interventions.
3. Efficiently complete and direct patient care activities of the LAC+USC vascular surgery service.
4. Demonstrate the clinical skills to evaluate a patient with vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
5. Provide a comprehensive vascular assessment and plan for inpatient vascular surgery consults.
6. Provide a comprehensive vascular assessment and plan for patients in an ambulatory setting.
7. Evaluation of vascular surgery emergencies, i.e. ruptured aortic aneurysms, acute limb ischemia, traumatic vascular injuries.

MEDICAL KNOWLEDGE & SKILLS
1. Interpret angiograms, noninvasive vascular lab studies, CT and MR related vascular studies.
2. Understand preoperative considerations in cardiac, pulmonary and renal risk assessment.
3. Knowledge of benefits and limitations of open procedures, endovascular therapy or nonoperative management for vascular disease.
4. Demonstrate the knowledge and skills required to formulate a comprehensive treatment plan for the broad spectrum of vascular disease.
5. Perform extremity bypasses, aortic aneurysms and carotid/extracranial procedures.
6. Evaluate and manage patients with traumatic vascular injuries.
7. Understand the indications for arteriography in blunt and penetrating arterial injuries.
8. Diagnosis and management of compartment syndrome.
9. Diagnosis and management of extremity vascular injuries associated with orthopedic and neurologic injuries.
10. Diagnosis and management of nonatherosclerotic vascular disease such as Takayasu’s disease, arterial thrombosis and embolism, intra-arterial drug injections, and mycotic aneurysms.
11. Skills to perform intraoperative duplex scanning and angiography.
13. Management of postoperative cardiac, pulmonary and renal systems; and anticoagulation.
14. Demonstrate the ability to monitor postoperatively various vascular reconstructions.

PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and LAC+USC chief of vascular surgery.
2. Develop ability to analyze critically the vascular literature in order to practice evidence-based medicine.
3. Organize daily rounds, participate in vascular surgery preop conference, morbidity and mortality conference, journal club and basic science curriculum.
4. Assume progressive increase in the responsibility for patient management decisions.
5. Participate in general surgery resident and medical student teaching.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis
3. Show sensitivity to patient’s culture, age, gender and disabilities in an ethnically diverse patient population.
4. Interact professionally with attending physicians and resident staff.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
3. Maintain professional interactions with other health care providers and LAC+USC staff.
4. Provide leadership and organization of the LAC+USC vascular surgery service.
5. Develop appropriate judgment and good communication skills.

SYSTEMS BASED PRACTICE
1. Understand how the health care organization of a public hospital affects vascular surgery practice.
2. Understand the economic limitations found in the delivery of public healthcare.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery at LAC+USC.
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner. Understand principles of LAC+USC vascular surgery quality assurance.
PATIENT CARE
2. Make informed decisions about diagnostic and therapeutic vascular interventions.
3. Efficiently complete and direct patient care activities.
4. Utilize clinical and technical skills as demonstrated by an appropriate diagnostic workup of vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
5. Receive referrals from cardiologists, pulmonologists, and primary care givers and participate in the clinical decisions concerning operative and endovascular therapy.
6. Clinical experience and decision-making concerning operative and non-operative intervention for vascular disease in the ambulatory setting.
7. Provide general preoperative cardiac, pulmonary and renal risk assessment.
8. Recognize the indications for referral to further evaluate cardiac, pulmonary and renal disease in the preoperative workup.
9. Evaluation of vascular surgery emergencies, i.e. ruptured aortic aneurysms, acute limb ischemia.

MEDICAL KNOWLEDGE & SKILLS
1. Interpretation of noninvasive laboratory studies, CT scans of the thorax, abdomen/pelvis, MRI, MRA of head and neck, and diagnostic angiography.
2. Knowledge of prosthetic vascular conduits, autogenous conduits, vascular suture, and instrumentation.
3. Diagnosis and management of extracranial vascular disease including stroke, transient cerebral ischemia, reversible ischemic neurologic deficits and crescendo TIAs.
4. Techniques of extremity bypass surgery including the use of cephalic, basilic, greater and lesser saphenous veins.
5. Assessment of limb ischemia; nonoperative and operative management.
7. Perform AV access procedures.
10. Exposure to complex vascular procedures, such as redo carotid and extremity revascularization; suprarenal, thoracoabdominal aneurysms.
11. Perform intraoperative completion angiography.
12. Perform cardiac, renal, pulmonary postoperative support and critical care.
14. Postoperative anticoagulation both indications and complications.
15. Diagnosis and management of deep venous thrombosis, pulmonary embolism, hypercoaguable states.
PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and HMH vascular program director. This includes attending HMH surgical teaching conferences, textbook and journal reading. An understanding of the diagnosis and management of vascular disorders is absolutely necessary. This allows for surgical judgment, which relies on knowledge, rational thinking and the surgical literature.
2. Refine ability to analyze critically the vascular literature in order to practice evidence-based medicine.
3. Lead and organize vascular surgery service daily rounds and resident assignments for vascular procedures.
4. Participate in vascular surgery morbidity and mortality conference, journal club and the basic science curriculum.
5. Carry out patient management decisions in consultation with attending staff.
6. Participate in general surgery resident and medical student teaching.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis.
3. Show sensitivity to patient’s culture, age, gender and disabilities.
4. Interface appropriately with specialists and primary care during pre and postoperative patient care.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
3. Maintain professional interactions with other health care providers and hospital staff.
4. Provide leadership and organization of the vascular surgery clinical services.
5. Develop appropriate judgment and good communication skills.
6. Participate in preoperative counseling of patients including explanation of procedures, risks, expected clinical course and outcome.

SYSTEMS BASED PRACTICE
1. Understand how the HMH and community healthcare practice delivers vascular surgery care.
2. Demonstrate cost effective health care in a community setting.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery at HMH.
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner.
6. Understand and participate in patient discharge planning and in home care.

KAISER - VASCULAR SURGERY GY 4

PATIENT CARE
2. Appropriate, effective, and empathetic for all pre- and post-operative surgical patients.
3. Acquire essential and accurate patient data.
4. Take pertinent history to evaluate patients (to include risk factors, previous history and current symptomology).
5. Present pertinent positives and negatives during rounds in an organized, coherent manner.
6. Demonstrate sound judgment, understanding of disease process and develop and execute patient care plans appropriate for level including pain management.
7. Follow patients from initial consult to completion of treatment and outpatient long-term follow up.
8. Deliver compassionate and culturally sensitive care, recognizing changing needs for social support systems for patients and their families throughout their diagnostic work-up, treatment and follow-up period.

MEDICAL KNOWLEDGE AND SKILLS
1. Demonstrate knowledge, skills and judgment related to his/her role in the performance of operative surgical procedures.
2. Demonstrate manual dexterity.
3. Arrives in the OR prepared knowing patient history and options for treatment.
4. Surgical techniques:
   a. Arterial Disease
   b. Reconstructive techniques for occlusive and aneurysmal disease
   c. Embolectomy, Endarterectomy, and Thrombectomy techniques.
   d. Endovascular management of peripheral occlusive disease
   e. Diagnostic Contrast, CO2, Intra-vascular ultrasound
   f. Therapeutic Angioplasty, Stenting, Arthrectomy, Thrombolysis
   g. Endovascular management of aneurysmal disease
   h. Stenting and Embolization
   i. Vein harvest
   j. Open and endoscopic Venous Disease
   k. Percutaneous treatment of varicose veins
   l. Laser Ablation, Sclerotherapy
   m. Surgical treatment of varicose veins
   n. Stripping and stab phlebectomies
   o. Vascular access
   p. Hemodialysis Access placement
   q. Permanent
   r. Temporary
   s. Tunnelled catheters
t. Peritoneal Dialysis
u. Laparoscopic placement
v. Knowledge of established and evolving clinical, epidemiological and social
   behavioral sciences that apply to the patient with vascular disease.
5. Demonstrate an investigatory and analytic approach to clinical situations in
   patients with vascular disease.
6. Know and apply the basic and clinically supportive science appropriate to the
   management of vascular disease.
7. At the completion of the rotation, the first year fellow should be able to
   demonstrate knowledge of each of the following topics:
   a. Arterial Occlusive disease Vasculitis
   b. Aneurysmal disease Dissections
   c. Extra-cranial Carotid disease
   d. Medical Risk Factor modification
   e. Venous Varicose veins
   f. Chronic venous insufficiency and ulcer management
   g. Deep venous thrombosis management.
   h. Lymphedema
   i. Amputations indications and technique
   j. Vascular Access
   k. Co-morbid conditions that affect operative risk (e.g., diabetes mellitus,
      coronary artery disease)

PRACTICE-BASED LEARNING
1. Demonstrate the ability to investigate and evaluate the care of patients, to
   appraise and assimilate scientific evidence and to continuously improve patient
   care based on constant self evaluation and lifelong learning.
2. Identify own strengths, deficiencies and limits.
3. Incorporate formative evaluation feedback into daily practice.
4. Locate, appraise and assimilate evidence from scientific studies related to
   vascular disease.
5. Participate in quality assurance activities.
6. Participate in mortality and morbidity conference that evaluates and analyzes
   patient care outcomes.
7. Prepare for lifelong learning by setting learning/improvement goals.
8. Participate in clinical research.

PROFESSIONALISM
1. Demonstrate a commitment to carrying out professional responsibilities and an
   adherence to ethical principles.
2. Demonstrate accountability to patients, society and profession.
3. Demonstrate responsiveness to patient needs that supersedes self interest.
4. Demonstrate a commitment to ethical principles, pertaining to provision or
   withholding of clinical care, confidentiality of patient information, informed
   consent and business practices.
5. Demonstrate sensitivity and responsiveness to patient's culture, age, gender and
   disabilities.
6. Present a professional appearance, attitude and demeanor.
7. Demonstrates effective time management and organizational skills.

INTERPERSONAL AND COMMUNICATION
1. Effective exchange of information and collaboration with patients, their families.
2. Demonstrate caring and respectful behavior when interacting with patients and/or their families.
3. Communicate effectively with patients, families and the public, across a broad range of socioeconomic and cultural backgrounds.
4. Work with the patients to incorporate patient preferences in decision making about diagnostic and therapeutic interventions.
5. Work effectively with physicians, other healthcare professionals and health related agencies.
6. Maintain timely, comprehensive and accurate medical records.

SYSTEMS-BASED PRACTICE
1. Demonstrate an awareness and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Provide cost effective, high quality care.
3. Coordinate and work effectively in an integrated health care delivery system relevant to management of peripheral vascular disease, venous disease, and vascular access.
5. Participate in identifying system errors and implementing potential solutions.
6. Use information technology to optimize learning of efficient, quality patient care.
7. Access on line technology to support his/her education.

VASCULAR IMAGING GY 4

PATIENT CARE
1. Demonstrate the ability to gather essential patient information prior to performing a vascular imaging study.
2. Make informed decisions about the limitations and accuracy of noninvasive vascular ultrasound, vascular physiologic, CTA and MRA studies.
3. Acquire technical skills for selected noninvasive vascular ultrasound, vascular physiologic, CTA and MRA studies.

MEDICAL KNOWLEDGE & SKILLS
1. Knowledge of arterial and venous physiology and anatomy
2. Knowledge of ultrasound physics and the physics of arterial and venous blood flow.
3. Knowledge of CT and MR safety both for patients and physicians.
4. Demonstrate a knowledge of the primary methods of dose reduction available during CT imaging.
5. Knowledge of physics and acquisition of CT and MR images
6. Interpretation of body and peripheral CTA and MRA studies, pre, post and perioperatively.
7. Interpretation of extremity arterial and venous physiologic studies.
8. Interpretation of carotid, renal, visceral, aortic and extremity arterial duplex studies.
9. Interpretation of vena cava and venous duplex studies.
10. Knowledge of technical skills required for diagnostic vascular ultrasound scanning.
11. Understand the indications, accuracy and diagnostic utility of specific noninvasive vascular tests, CTA and MRA.
12. Understand the indications and limitations of vascular ultrasound, CTA and MRA studies and be able to appropriately select the optimal study for any given clinical situation.
13. Knowledge of statistical analysis used to assess the accuracy of vascular studies, including receiver operator curves, kappa statistic, specificity, sensitivity, positive predictive value, negative predictive value and accuracy.
14. Learn the basic skills of a 3D imaging system as they apply to vascular imaging and general radiology, including the important tools available to the vascular surgeon in decision making.
15. Generate appropriate, decisive reports to aid in clinical decisions.

PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and vascular lab medical and technical directors, attending radiologist and radiology technicians. An understanding of the etiology, pathogenesis, pathophysiology of vascular disorders is absolutely necessary to performing and interpreting imaging studies.
2. Participate and assist in organization of vascular lab quality assurance.
3. Participate in general surgery resident and medical student teaching concerning noninvasive vascular studies.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the need for patient privacy and comfort during noninvasive vascular studies.
2. Demonstrate respect, compassion and integrity to all patients.
3. Show sensitivity to patient’s culture, age, gender and disabilities.
4. Interact professionally with referring physicians and other physician providers.
5. Provide timely reports and feedback on the results of imaging studies to ordering physicians.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the vascular laboratory and radiology staff including allied health care personnel (clerical and technical staff).
3. Maintain professional interactions with other health care providers and hospital staff.
4. Communicate promptly and effectively with patients, patient family members and referring physicians concerning the results of the vascular imaging studies.
SYSTEMS BASED PRACTICE
1. Understand how an effective, efficient vascular laboratory is organized.
2. Demonstrate knowledge of the costs of the various vascular imaging studies as well as the equipment and disposables required for those studies.
3. Recognize the importance of allied health care personnel (clerical and technical staff) to vascular imaging
4. Follow established practices, procedures, and policies of the vascular laboratory and radiology.
5. Prompt completion of vascular imaging documentation and medical records.
6. Understand principles of Vascular imaging quality assurance practices.
7. Demonstrate the knowledge required to implement and coordinate a vascular imaging quality assurance program

USC KECK HOSPITAL - VASCULAR SURGERY GY 5

PATIENT CARE
1. Refine the ability to gather essential and accurate patient information in patients with vascular disease.
2. Make informed decisions about diagnostic studies, and operative and endovascular therapeutic interventions.
3. Efficiently complete and direct patient care activities of the USCKeck Hospital vascular surgery service.
4. Demonstrate the necessary clinical skills to evaluate a patient with vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
5. Perform a comprehensive vascular assessment and plan in the ambulatory setting.
6. Initiate appropriate diagnostic workup specific vascular diseases utilizing noninvasive and invasive diagnostic technologies.

MEDICAL KNOWLEDGE & SKILLS
1. Interpret angiograms, noninvasive vascular lab studies, CT and MR related vascular studies.
2. Understand preoperative considerations in cardiac, pulmonary and renal risk assessment.
3. Knowledge of benefits and limitations of open procedures, endovascular therapy or nonoperative management for vascular disease.
4. Demonstrate the knowledge and skills required to formulate a comprehensive treatment plan for the broad spectrum of vascular disease.
5. Perform extremity bypasses, aortic aneurysms and carotid/extracranial procedures.
6. Perform quaternary, tertiary referral complex vascular procedures such as redo limb bypasses and carotid procedures, juxta, supra and thoracoabdominal aneurysms, renal and visceral revascularization.
7. Demonstrate mastery of the skills to perform intraoperative duplex scanning and angiography.
10. Management of postoperative cardiac, pulmonary and renal systems; and anticoagulation.
11. Demonstrate the ability to monitor postoperatively various vascular reconstructions.
12. Evaluation of the patient requiring AV access.
13. Performance of AV access procedures.
14. Perform venous procedures including saphenectomy, phlebectomy, and perforator vein ligation.
15. Diagnosis and treatment of neurogenic and vascular thoracic outlet syndromes.

PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and program director. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of vascular disorders is absolutely necessary. This will allow for sound surgical judgment, which relies on knowledge, rational thinking and the surgical literature.
2. Demonstrate the ability to analyze critically the vascular literature in order to practice evidence-based medicine.
4. Carry out patient management decisions in consultation with attending staff.
5. Participate in general surgery resident and medical student teaching.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis.
3. Show sensitivity to patient’s culture, age, gender and disabilities.
4. Interact professionally with referring physicians, consulting physicians and other physician providers.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
6. Create and sustain a therapeutic and ethically sound relationship with patients.
7. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
8. Maintain professional interactions with other health care providers and USC Keck Hospital hospital staff.
9. Provide leadership and organization of the USC Keck Hospital vascular surgery service.
10. Develop appropriate judgment and good communication skills.

SYSTEMS BASED PRACTICE
1. Understand how the health care organization of an academic medical center affects VASCULAR SURGERY practice.
2. Demonstrate cost effective health care.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery at USC Keck Hospital.
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner.
6. Understand principles of USC Keck Hospital vascular surgery quality assurance practices.

LAC+USC MEDICAL CENTER – VASCULAR SURGERY GY 5

PATIENT CARE
1. Demonstrate a mastery of the ability to gather essential and accurate patient information in patients with vascular disease.
2. Make informed decisions in consultation with attending staff about diagnostic studies, and operative and endovascular therapeutic interventions.
3. Efficiently complete and direct patient care activities of the LAC+USC vascular surgery service.
2. Demonstrate the clinical skills to evaluate a patient with vascular disease with a full understanding of the tests to be ordered, the differential diagnosis, the management plan, the necessary vascular surgical procedures and the preoperative and postoperative care required both short and long term.
3. Provide a comprehensive vascular assessment and plan for inpatient vascular surgery consults.
4. Provide a comprehensive vascular assessment and plan for patients in an ambulatory setting.
5. Evaluation of vascular surgery emergencies, i.e. ruptured aortic aneurysms, acute limb ischemia, traumatic vascular injuries.

MEDICAL KNOWLEDGE & SKILLS
1. Interpret angiograms, noninvasive vascular lab studies, CT and MR related vascular studies.
2. Understand preoperative considerations in cardiac, pulmonary and renal risk assessment.
3. Knowledge of benefits and limitations of open procedures, endovascular therapy or nonoperative management for vascular disease.
4. Demonstrate the knowledge and skills required to formulate a comprehensive treatment plan for the broad spectrum of vascular disease.
2. Perform extremity bypasses, aortic aneurysms and carotid/extracranial procedures.
3. Evaluate and manage patients with traumatic vascular injuries.
4. Understand the indications for arteriography in blunt and penetrating arterial injuries.
5. Diagnosis and management of compartment syndrome.
6. Diagnosis and management of extremity vascular injuries associated with orthopedic and neurologic injuries.
7. Diagnosis and management of nonatherosclerotic vascular disease such as Takayasu's disease, arterial thrombosis and embolism, intra-arterial drug injections, and mycotic aneurysms.
8. Skills to perform intraoperative duplex scanning and angiography.
10. Management of postoperative cardiac, pulmonary and renal systems; and anticoagulation.
11. Demonstrate the ability to monitor postoperatively various vascular reconstructions.

PRACTICE BASED LEARNING
1. Pursue a personal program of self-study and professional growth with guidance from the teaching staff and LAC+USC chief of vascular surgery.
2. Develop ability to analyze critically the vascular literature in order to practice evidence-based medicine.
3. Organize daily rounds, participate in vascular surgery preop conference, morbidity and mortality conference, journal club and basic science curriculum.
4. Assume progressive increase in the responsibility for patient management decisions.
5. Participate in general surgery resident and medical student teaching.

PROFESSIONALISM
1. Participate in compassionate patient care maintaining the highest moral and ethical values with a professional attitude. The resident should be sensitive to the needs and feelings of others, including the patient's family members, allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
2. Demonstrate respect, compassion and integrity in the care of patients on a daily basis
3. Show sensitivity to patient's culture, age, gender and disabilities in an ethnically diverse patient population.
4. Interact professionally with attending physicians and resident staff.

INTERPERSONAL RELATIONSHIPS AND COMMUNICATION
1. Create and sustain a therapeutic and ethically sound relationship with patients.
2. Work effectively with other members of the medical team including allied health care personnel (nurses, clerical staff, etc.), fellow residents, and medical students.
3. Maintain professional interactions with other health care providers and LAC+USC staff.
4. Provide leadership and organization of the LAC+USC vascular surgery service.
5. Develop appropriate judgment and good communication skills.

SYSTEMS BASED PRACTICE
1. Understand how the health care organization of a public hospital affects vascular surgery practice.
2. Understand the economic limitations found in the delivery of public healthcare.
3. Know how to partner with health care managers and allied health personnel to improve health care.
4. Follow established practices, procedures, and policies of the Department of Surgery and Division of Vascular Surgery at LAC+USC.
5. Completion of medical records, operative notes and other patient care related documentation in a timely, accurate and succinct manner.
EVALUATION SYSTEM

PURPOSE OF THE EVALUATION SYSTEM

The purpose of the evaluation is to provide information on vascular resident performance for the following reasons:
1. To make decisions on individual vascular resident promotion.
2. To provide data to specific boards for certification.
3. To write letters of recommendation.
4. To identify vascular resident deficiencies and initiate corrective measures to assist the vascular resident in his/her professional development as a vascular surgeon.
5. To identify strengths and weaknesses of the teaching program and faculty in order to improve the vascular resident educational experience.

METHODOLOGY OF RESIDENT EVALUATION

ACTIVITIES EVALUATED
1. Clinical rotation evaluations, completed quarterly.
2. Competency evaluations for index activities of the vascular educational experience.
3. Conference attendance.
5. Quality and timeliness of record keeping.
6. Adherence to policies and procedures of the Department of Surgery Division of vascular and affiliated hospitals and institutions.
7. Education of medical student and surgical residents.
8. Clinical Research Project

EVALUATION TOOLS
1. Evaluations are completed on the on line electronic residency information management system.
2. All evaluations are set up as ‘Completed Dyads Only’ neither evaluator can see the completed evaluation until both have completed them.
3. The evaluation tools are specific to the rotation and are competency based by year of training. The six competency domains include; patient care, medical knowledge, practice based learning and improvement; interpersonal and communication skills, professionalism and systems based practice.
4. The evaluation form has a 5 point rating scale (a rating of 5 is equivalent to meritorious performance) which requires the faculty to evaluate the resident for the following parameters: history taking, physical examination, use of laboratory studies including radiology with emphasis on cost effective utilization, assessing data and arriving at a diagnosis based on the above data and factual knowledge, appropriate management of problems identified and maintenance of health including technical skills, interpersonal.
relationships with patients and families as well as relationships with other members of the multidisciplinary team, work habits and personal qualities. Other cognitive skills evaluated include supervision, ability to teach, knowledge of social science and humanities, commitment, energy, initiative and honesty.

5. Evaluation forms include:

a) Global evaluation of all Competencies: Evaluators - full time faculty.
b) Endovascular Therapeutics Competency Assessment: Evaluator – PD.
c) Vascular Technology Competency Assessment: Evaluator - Technical Director, USC Keck Hospital Vascular Laboratory
d) Open Vascular Surgery Competency Assessment: Evaluator – Selected full-Time faculty
   1) Carotid Endarterectomy
   2) Lower Extremity Revascularization
e) Operating Room, Patient Care Competency Assessment: Evaluator – USC Keck Hospital OR Coordinator

6. The attending is required to give an overall rating of the performance for the rotation. In addition, space is provided for a narrative regarding the performance.

Distribution of Evaluation Tools:

1. The electronic residency information management system automatically generates monthly evaluations for each resident and faculty supervisor specific to their rotation. The system also sends automatic reminders to faculty to complete their evaluations. The first notification is sent one-week prior to the end of the rotation. If the supervising faculty has not submitted their evaluation within seven days of the end of the rotation a reminder is automatically generated.

2. The Program Coordinator tracks compliance and the Program Director is notified if there has been more than a four-week delay. The Program Director contacts the faculty through direct notification.

RESIDENT EVALUATIONS

Resident evaluations are by rotation, semi-annual and summative

ROTATION EVALUATIONS provide the resident with

1. Objective assessments of competence in patient care, medical knowledge, practice - based learning and improvement, interpersonal and communication skills, professionalism and systems- based practice.
2. Evaluations that are multidisciplinary (faculty, peers, patients, self and other professional staff)
3. Performance evaluation as documented appropriate to educational level as per defined milestones in the evaluation tools.
4. Evaluations accessible for review by the resident, in accordance with institutional policy

**SEMI-ANNUAL EVALUATION:**

1. The Program Coordinator schedules individual meetings with each resident and the Program Director or Associate Program Director. The Program Coordinator ensures that all the required documentation has been completed and is filed under the appropriate tabs in the resident’s portfolio.
2. The resident portfolio contains curriculum profile, printouts of all evaluations, direct observations, self assessments, procedure logs, scholarly activity profile, in-training exam scores, individualized learning plans, professional development documentation, updated licensures / certification, and outcome data.
3. The program director/associate director review and discuss with the resident all of the portfolio documentation, the resident’s strengths and weaknesses, provides feedback regarding individual learning plan objectives, career goals and personal and professional developmental opportunities such as elective selection, research and scholarly activities, participation in regional and national vascular societies. Residents are provided opportunity and encouraged to discuss their strengths and any concerns he/she has about the program or faculty.
4. This meeting is documented by a dictated letter signed and dated by the resident and the Program Director or Associate Program Director and filed in the resident’s portfolio.

**SUMMATIVE EVALUATION:**

The program director provides a summative evaluation for each resident upon completion of the program. This evaluation is a permanent record maintained by the institution, and is accessible for review by the resident in accordance with institutional policy.

The evaluation:

1. Documents the resident’s performance during the final period of education,
2. Verifies that the resident “has demonstrated sufficient competence to enter practice without direct supervision”.

**FACULTY EVALUATIONS**

1. Residents have the opportunity to confidentially and anonymously evaluate faculty at the end of each rotation utilizing the on line electronic residency management system. An automatic email is sent to the resident through the electronic residency information management system reminding the resident to log in and complete their faculty evaluations.
2. The evaluation form does not identify the name of the resident evaluator. Furthermore, the faculty cannot directly access the resident’s evaluation at
any time which prevents faculty from making a temporal identity association
to ensure anonymity. The only individuals with access to the faculty
evaluations are the Program Director and Associate Program Director.
3. An aggregated summary report is generated by the electronic residency
information management system for review by the Program Director.
Comments are random without identifiers of evaluator rotation.

PROGRAM AND ROTATION EVALUATIONS

1. Residents have the opportunity to confidentially evaluate each rotation
utilizing the on line electronic residency management system. An automatic
email is sent to the resident through the electronic residency information
management system reminding the resident to log in and complete their
rotation evaluations
2. The program utilizes formal processes for using resident performance and
outcome assessment data to evaluate the program. The key elements for
Program evaluation include: resident performance, program quality, graduate
performance and faculty development.
3. The Vascular Surgery GMEC conducts annual program to ensure that the
overall and individual service goals are being met. Representative faculty and
residents engage in an interactive discussion of the collected data at the
annual comprehensive GMEC review of the program with documentation in
the meeting minutes.
4. An improvement action plan is prepared based on feedback from Program
feedback.
5. The Program Residents are provided opportunity to evaluate the program and
curriculum through:
6. Individual resident semiannual summative evaluation meetings.
7. Each resident submits an anonymous evaluation of the curriculum and
program semi-annually.

RESIDENT PROMOTION

VERINFORMrm

To ensure compliance with ACGME, the LAC+USC GME office has contracted with
VerinformRM to develop a web-based data management system which will handle all
residency training data for faculty and housestaff. VerinformRM provides 7 day, 24 hour
security to the system and can be accessed by any computer with a browser and an
internet connection by typing in the following address: rm.verinform.com/lac. At the end
of each quarter an automatic e-mail reminder to complete online evaluations will be sent
to each faculty and resident.
HOSPITALS

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Division Web Site
www.uscvascular.org
APPLICATION PROCESS

The USC Vascular Surgery Residency Training endeavors to comply with the ACGME requirements for the selection of candidates for our program. The process begins well over a year in advance of the academic year being considered. In accord with the ACGME requirements on resident selection, the USC Program selects from among the eligible applicants on the basis of preparedness, ability, aptitude, academic credentials, communication skills, and personal qualities such as motivation and integrity. We do not discriminate with regard to sex, race, age, religion, color, national origin, disability, veteran status or any other applicable legally protected status.

APPLICATION PROCESS

A standard letter (Sample attached) is mailed to the inquiring applicants which identifies the particular information required.

1. Curriculum Vitae
2. Personal Statement
3. Universal Application (copy is sent, if needed)
4. Transcripts and Dean’s Letter from medical school
5. Three or more letters of recommendation
6. USMLE Step I and II scores

Applications are received beginning September 1 through February 15 of the preceding year.

SELECTION COMMITTEE AND PROCESS

A committee of three to four faculty members reviews all of the applicants and score them. The selection committee is composed of faculty in the Division.

The following basic requirements are confirmed for all applicants upon initial review of the applications:

1. Graduates of ACGME accredited medical schools in the United States and Canada.
2. All Graduates of medical schools outside the United States and Canada have a current valid certificate from Educational Commission for Foreign Medical Graduates (ECFMG), or a full and unrestricted license to practice medicine in the United States.
3. All Graduates of medical schools outside the United States have completed a Fifth Pathway program provided by an LCME-accredited medical school.
4. All Graduates must comply with the requirements for licensure by the medical Board of California.

Each committee member then separately reviews in depth those applicants that meet the above criteria. The applicants are then ranked. The sample score sheet indicates the various areas that are reviewed such as scores, research background, etc. After all the applicants are evaluated, a selection committee meeting is arranged to decide which applicants will be invited for interview.

Letters of invitation are then mailed requesting a response within two weeks. Letters are also sent out shortly after notifying those applicants who were not selected for interview. After all responses are returned and those who are actually coming for interview are identified, the agenda and other information are sent to those interviewees.

**INTERVIEW PROCESS**

Interviews are completed each year in order to comply with the National Resident Matching Program’s schedule. On the day of interview, the attached agenda is generally followed. The day begins with a meeting of all interviewees, faculty and current residents, followed by morning interviews. At noon, lunch in the Faculty Center is arranged to include interviewees, faculty and current residents, followed by a short tour of the campus and facilities. After the tour, afternoon interviews continue until all applicants have been interviewed individually by each faculty participant.

**NATIONAL RESIDENT MATCHING PROGRAM (NRMP)**

The USC Vascular Residency Training Program participates each year in the NRMP match. Attached is a sample of the schedule that is followed during the course of our selection process. After the NRMP has received the Program ranking lists and the Applicant ranking lists, they send the results usually no later than June of the preceding academic year.

Upon receipt of the results, letters of congratulations are sent to those who match with our program, as well as, letters of regret to those who did not. (Samples attached).