

## **Vascular Surgery Goals and Objectives PGY 4**

### **Goals:**

Kaiser will provide a learning environment for various vascular issues. Surgical basic science, wound healing and nutrition will be emphasized. Clinically, residents will assess surgical pathology pre-operatively, develop clinical judgment on managing these issues, and learn operative skills to address the problem. In addition, residents will become proficient in interpreting the different diagnostic modalities commonly used in vascular surgery. Careful postoperative care and follow up will be emphasized. Residents will develop cognitive and technical skills in dealing with complex vascular pathology.

### **Objectives:**

#### **Medical Knowledge:**

- Knowledge of the management of concomitant intra abdominal pathology found at the time of AAA repair as: cholelithiasis, colon cancer, and renal tumors.
- Understand issue associated with preservation of pelvic circulation through reperfusion of one of the hypogastric, significance of previous colectomy, and indication for re-implantation of inferior mesenteric artery during AAA repair.
- Outline the diagnosis and management of deep venous thrombosis, pulmonary embolism, and hypercoagulable states. Consider the differentiation of embolic vs. thrombotic event; provision of initial management with anticoagulation and therapy with thrombolytics vs. surgical therapy.
- Know the regional anatomy, exposure, and surgical technique (including patient positioning) for open aortic aneurysm repair (transperitoneal and retroperitoneal)
- Know management of post-operative complications following open and end graft AAA repair (fluid replacement, colonic ischemia, trash foot, endoleaks)
- Know etiology and management of special types of aneurysm disease (popliteal aneurysm, visceral artery aneurysms, suprarenal AAA, infected aneurysm, inflammatory aneurysm, symptomatic AAA)
- Comprehensive knowledge of surgical technique for lower extremity arterial bypass procedures (vein harvest, arterial exposures, tunneling, wound closures)
- Know the indications, outcomes, and complications of balloon angioplasty of infrainguinal arterial occlusive disease for limb salvage
- Know the rationale and have a strategy for postoperative vein graft surveillance
- Know the classification and outcomes for acute limb ischemia (thrombosis versus embolism)
- Know the data and have a rationale for patient selection for intervention (CEA and stenting; symptomatic and asymptomatic)
- Know the surgical technique for carotid endarterectomy (patient positioning, surgical exposure, regional anatomy, intraluminal shunt, patch closure)
- Have a rationale and strategy for long-term follow-up after CEA and carotid stenting (restenosis, opposite side)

- Know the non atherosclerotic causes for Claudication (neurogenic, popliteal entrapment, adventitial cyst disease)
- Know how to manage steal syndrome (DRIL, fistula ligation)
- Know the surgical exposure and technique for embolectomy of the SMA.
- Know the surgical exposure and technique for SMA bypass.

#### **Patient Care:**

- Be able to choose the appropriate type of arteriovenous anastomosis based on advantages and disadvantages to provide easy access to hemodialysis
- Encompass the surgical technique to create an external arteriovenous shunt and internal arteriovenous fistula and managing the possible complications such as arterial steal syndrome and CHF.
- Describe the surgical exposure for infrarenal AAA surgery, contrasting transperitoneal and retroperitoneal approaches
- Measure and interpret lower extremity intracompartmental pressures and manage compartment syndrome
- Describe intra-operative maneuvers useful to assist in distal internal carotid artery exposure (mobilize hypoglossal nerve, divide digastric muscle)
- Describe/demonstrate surgical exposure of femoral, popliteal, and tibial arteries
- Describe rationale and protocol for anticoagulation and surgical management of patient with crescendo TIAs
- Describe management of patient with bloody diarrhea following ruptured aneurysm repair
- Will acquire skill in invasive/non invasive vascular interventional techniques

#### **Practice Based Learning and Improvement:**

- Participate in Mortality and Morbidity Conference
- Apply knowledge of scientific data to the care of the surgical patient.
- Facilitate the learning of medical students, interns and juniors residents on the team.
- Demonstrate improvement in clinical management of patients by continually improving medical care related knowledge and skills during the rotation.
- Develop an attitude of responsibility for the patients on the wards, and in so doing develop the skill of self-assessment with the goal of continuous improvement in practice management style.
- Understand the importance of critically reading and discussing medical literature pertinent to patients critically ill
- Importantly discuss performance with respect to care of patients and progress made during rotation with Chief of Service or designee at mid-rotation meeting.
- Learn how to effectively utilize hospital educational resources and begin to apply literature based and evidence based concepts as well as experimental evidence to their daily practice of surgery.
- Complete the Personal Learning Project as outlined in the Practice Based Learning and Improvement Curriculum

**Interpersonal and Communication Skills:**

- Delegate jobs clearly to the appropriate team member
- Establish rapport with patients and their families.
- Perform a patient-centered medical interview.
- Engage patients in shared decision-making, and participate in family discussions
- Effectively and considerately communicate with team staff in a manner that promotes care coordination.
- Respectfully interact with patients, staff, and families.
- Learn to listen and assess non-verbal cues from patients and staff
- Work effectively with the team, communicating issues appropriately and succinctly.
- Complete the Interpersonal and Communications Skills curriculum for the current quarter

**Professionalism:**

- Coordinate efforts of the team
- Demonstrate respect and compassion for all patients.
- Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all patients and their families.
- Assist with families of critically injured/ill patients and guidance of families towards or through difficult decision.
- Adhere to the local institutional code of conduct, demeanor, behavior and attire.
- Demonstrate mentoring and positive role-modeling skills
- Learn and practice the ethical principles involved with caring for the surgical population including, consent-ability, confidentiality, and informed consent.
- Complete the Professionalism in Surgery curriculum for the current month

**Systems Based Practice:**

- Assist in the development of care pathways
- Assist in the coordination of call for all surgery residents
- Comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations regarding patient privacy and confidentiality
- Develop a basic understanding of local, regional, national and international economic, societal, and clinical impact of hospitalized patient.
- Develop an appreciation for the benefits of a multi-disciplinary approach to management of critically ill surgical patients.
- Learn to practice cost-effective health care without sacrificing quality of care
- Partner with health care managers to assist in providing seamless care across systems.
- Complete the Systems based Practice Curriculum for the current month.

**Assessments:**

- Patient care and technical skills will be assessed by the attending surgeon in a daily basis.
- During the formative evaluation at the end of the rotation.

**Educational Conferences:**

Conference	Date and Time
------------	---------------

M&M / Grand Rounds	Thursday – 7:00 am
Tumor Board	Friday - 12:30 pm
ACS Weekly	Monday – 7:00 am
Current Case Conference	Monday – 8:00 am
Journal Club (as scheduled)	Thursday - 7:00 am
Skills Lab (as scheduled)	Thursday – 7:00