Vascular Surgery Competency Based Curriculum

MEDICAL/SURGICAL KNOWLEDGE
Medical knowledge is gained over a continuum of increasing understanding that occurs at an individual rate. The resident will gain progressive knowledge of diagnosis, management, treatment options (surgical and non-surgical), long term prognosis, post operative results, complications, patient risk and cost considerations associated with:

Cerebrovascular disease
1. symptomatic and asymptomatic carotid disease
2. vertebrobasilar disease
3. carotid body tumors

Upper extremity occlusive disease
1. thoracic outlet syndrome
2. vasospastic disease

Aneurysm disease
1. dissection versus rupture
2. thoracoabdominal and suprarenal aneurysms
3. ruptured versus elective aneurysm AAA repairs
4. management of small abdominal aortic aneurysms
5. inflammatory aneurysms
6. infected grafts and mycotic aneurysms
7. splanchnic aneurysms
8. iliac, femoral and popliteal aneurysms
9. Aortoiliac occlusive disease
10. transluminal angioplasty
11. reconstructive procedures
12. extra anatomic reconstruction indications and techniques, ie: ax-fem, fem-fem
13. interventional radiographic approaches

Lower extremity occlusive disease, chronic
1. medical management
2. autogenous venous bypass
   i. above knee, below knee
   ii. in-situ, reversed
3. artificial material bypass
4. transluminal angioplasty
5. popliteal entrapment syndrome
Lower extremity occlusive disease, acute
   1. embolic occlusion
   2. thrombosis
   3. hypercoagulable states
   4. fibrinolytic therapy
   5. balloon catheter embolectomy

Vascular trauma
   1. penetrating injuries
      i. aorta and arch vessels
      ii. extremity vessels
   2. blunt trauma
      i. associated with fractures of extremities
      ii. thoracic aorta
      iii. compartment syndrome

Mesenteric vascular disease
   1. renovascular
   2. chronic splanchnic occlusive disease
   3. acute splanchnic occlusive disease

Angioaccess
   1. methods of access
   2. techniques of arterio-venous shunts/fistula
   3. various devices used for angioaccess

Venous disease
   1. varicose veins
   2. management of deep venous thrombosis
   3. venous thrombectomy
   4. post phlebitic syndrome
   5. venous stasis change and ulceration
   6. effort thrombosis
   7. medical and surgical treatment of acute PE
   8. IVC filter use
TECHNICAL SKILLS / PATIENT CARE
Residents will develop and refine skills necessary to:

Junior Resident (PGY 1 and 2)
1. Take an appropriate vascular history and identify the risk factors which might influence the patient's ability to tolerate the planned procedure.
2. Perform a complete vascular exam with evaluation of pulses, bruits, and possible aneurysms, including noninvasive and invasive parameters.
3. Discuss treatment options, risks and potential complications with patients having vascular disease.
5. Manage the post-operative care of vascular patients, identify and manage complications.
6. Interpret arteriograms and noninvasive vascular studies.

Senior Resident (PGY 4 and 6)
1. Mastery of all junior resident skills.
2. Assist and perform major surgical procedures, based on the residents' level of skill demonstrated.
3. Oversee work of the junior resident on service.

INTERPERSONAL AND COMMUNICATION SKILLS

Junior (PGY 1,2) and Senior Residents (PGY 4,6) are expected to be effective in both interpersonal and communication skills including:

1. Establish rapport with patients and their families.
2. Perform a patient-centered medical interview, focusing on vascular issues.
3. Engage patients in shared decision-making, and participate in family discussions.
4. Effectively and considerately communicate with team staff in a manner that promotes care coordination.
5. Discuss patient’s fears regarding loss of life or limb.
6. Discuss patient’s fear of amputation and it’s impact on self-image and mobility.
PROFESSIONALISM

All residents (PGY 1,2, 4, 6) are expected to conduct themselves in a compassionate, ethical and professional manner, including:

1. Demonstrate respect and compassion for all patients.
2. Exhibit competency in working with patients regarding advanced directives, DNR status, futility, and withholding/withdrawing therapy.
3. Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all patients and their families.
4. Identify patient’s fear associated with the diagnosis of stroke.
5. Identify and assist with the psychological stress of patients with chronic vascular disease as it affects their personal life, their family life, and their socioeconomic environment.

PRACTICE BASED LEARNING AND IMPROVEMENT

All residents (PGY 1,2,4, and 6) are expected to

1. Exhibit self-directed learning.
2. Demonstrate improvement in clinical management of patients by continually improving vascular-related knowledge and skills during the rotation.

SYSTEMS BASED PRACTICE

All residents (PGY 1,2,4, and 6) are expected to

1. Demonstrate understanding of medical delivery systems as they relate to both inpatient and outpatient resources.
2. Work well with multidisciplinary teams, coordinating care and effectively working with vascular surgeons and other providers in a team setting.
3. Arrange for postoperative care and follow-up for amputees.