

## **National Undergraduate medical student objectives in Vascular Surgery- Final version March, 2022**

**These recommended objectives were designed for undifferentiated medical students, most of whom will not be vascular surgeons. This list is not intended to be comprehensive and individual institutions may choose to add additional objectives to this list. This list was compiled in conjunction with objectives from various Vascular programs across the country and was reviewed and approved by the CSVS executive in March 2022.**

### **1) Peripheral arterial disease (PAD) and mesenteric occlusive disease**

- a. Demonstrate the ability to take a history and physical exam on patients with acute and chronic lower extremity arterial disease and the basic use of the Hand-held doppler and the ankle-brachial index
- b. Explain the different classifications of PAD (claudication, critical limb ischemia) and the common etiologies of acute limb ischemia (embolism vs thrombosis)
- c. Outline the basic diagnostic approaches to and treatment of acute and chronic limb ischemia including the fundamentals of roles of antiplatelet, anticoagulants, endovascular and open surgical approaches.
- d. Describe an approach to lower extremity ulceration and be able to distinguish between arterial, diabetic, venous and mixed ulcer pathologies and the role of compression and off-loading therapy in addition to revascularization based on ulcer etiology.
- e. Describe the clinical features of acute and chronic mesenteric ischemia, how to distinguish between the two, and the principles of treatment including endovascular and surgical options.

### **2) Carotid disease**

- a. Demonstrate the ability to take a history and physical exam on patients with carotid-related neurologic complaints.
- b. Outline the role of diagnostic modalities for carotid disease (duplex US, CT, angiography) and the role of symptomatic status and degree of stenosis in guiding therapeutic decisions.
- c. Describe the basic principles of surgical management of carotid disease and the role of carotid endarterectomy and carotid stenting.

### **3) Aneurysms**

- a. Explain the basic pathophysiology of aneurysmal disease, including its most common etiology and location (infrarenal/abdominal) and recognize the symptoms and signs of a ruptured aneurysm.
- b. Outline the approaches to diagnosis and role of US and CT scan, and the indications for AAA screening.

- c. List the indications for treatment (size, symptoms, ruptured) and basic principles of open and endovascular repair of abdominal and thoracic aortic aneurysms.
- d. Describe the presenting signs and symptoms of a type B aortic dissection, the role of CT in diagnosis, the important difference between type A dissection and type B dissection in determining surgical vs medical treatment and the principles of initial type B dissection treatment (blood pressure control, invasive monitoring, surveillance for malperfusion/ischemia).

**4) Venous and lymphatic disease**

- a. Demonstrate the ability to take a history and physical exam on a patient who presents with venous related limb complaints.
- b. Describe the different clinical presentations and etiologies of venous disease (thrombotic occlusion, reflux, varicose veins, venous ulcer).
- c. Outline the principles of chronic venous disease management (compression +/- saphenous stripping/ablation).
- d. Describe the basic presentation, diagnosis (US) and treatment of an iliofemoral DVT with indications for anticoagulation and thrombolysis.