

## **VASCULAR SURGERY**

### **CanMEDS roles and responsibilities**

#### **General Objectives**

- a. To develop an understanding of radiologic and non-invasive assessment of arterial, venous, and lymphatic disease.
- b. To develop an ability to localize the level of obstruction in exercise-induced leg ischemia by history and clinical examination.
- c. To gain technical expertise with arteries and veins pertinent to the practice of an Orthopaedic Surgeon.
- d. To gain technical expertise in lower extremity amputation.

#### **Specific Objectives**

##### **I. MEDICAL EXPERT**

###### **Knowledge**

1. Anatomy, physiology and relevant surgical approach to the arterial and venous supply to the lower extremities, upper extremities, carotid sheath, subclavian artery and vein, abdominal aorta and vena cava, and aortic and iliac bifurcation, as relevant to the practice of an Orthopaedic Surgeon.
2. Non-invasive and radiologic assessment of the arterial, venous and lymphatic systems.
3. Pharmacology as related to diseases of arteries and veins, especially chronic and acute arterial disease, deep venous thrombosis and pulmonary embolism.
4. Natural history of arterial disease processes and outcome of a variety of vascular procedures.
5. Arterial insufficiency of the legs.
6. Abdominal aortic aneurysm.
7. Peripheral aneurysms.
8. Carotid vascular disease.
9. Diabetes-related vascular disease.
10. Varicose veins.
11. DVT.
12. Compartment syndromes.

###### **Technical skills**

1. Assisting in the operating room, developing a facility for anticipation of surgical manoeuvres, gentle traction on tissues, and an ability to take direction well, to make reasonable suggestions and enquiry, and to contribute to a positive operating room atmosphere.
2. Knowledge of techniques of:
  - a. Control of hemorrhage in emergency situations.
  - b. BKA, AKA
  - c. Femoral arterial embolectomy.
  - d. Exposure of arterial pathology at various sites without injury to the artery or surrounding structures.
  - e. Repair of traumatized artery.
  - f. Vascular anastomosis.
  - g. Fasciotomy.

#### Clinical skills

1. Perform a complete, concise and relevant history and physical exam of the vascular surgery patient.
2. Generate an appropriate differential diagnosis.
3. Order and interpret appropriate laboratory and imaging procedures.
4. Generate an appropriate plan of management, demonstrating knowledge of nonoperative and operative treatment modalities.
5. Manage patients in the ambulatory setting, demonstrating a knowledge of common office techniques and procedures.
6. Manage the patient throughout the entire in-hospital course, demonstrating knowledge of and being able to treat potential complications of disease processes and operative procedures.
7. Provide a plan for patient follow-up.

#### **II. COMMUNICATOR**

1. Establish therapeutic relationships with patients/families.
2. Obtain and synthesize relevant history from patients/families/communities.
3. Listen effectively.
4. Discuss appropriate information with patients/families and the health care team.

#### **III. COLLABORATOR**

1. Consult effectively with other physicians and health care professionals.
2. Contribute effectively to other interdisciplinary team activities.
3. Share knowledge effectively to formulate a health care plan.

#### **IV. LEADER**

1. Utilize resources effectively to balance patient care, learning needs and outside activities.
2. Allocate finite health care resources wisely.
3. Work effectively and efficiently in a health care organization.
4. Utilize information technology to optimize patient care, life-long learning and other activities.

#### **V. HEALTH ADVOCATE**

1. To identify opportunities for patient counselling and education regarding their vascular surgery condition.
2. To educate patients regarding lifestyle modifications that may prevent disease including modification of vascular risk factors.

#### **VI. SCHOLAR**

1. Develop, implement and monitor a personal continuing education strategy.
2. Critically appraise sources of medical information.
3. Facilitate learning of patients, housestaff and other health professionals.

#### **VII. PROFESSIONAL**

1. Deliver the highest quality care with integrity, honesty and compassion.
2. Exhibit appropriate personal and interpersonal professional behavior.
3. Practice medicine ethically consistent with the obligations of a physician.