

# Dalhousie University Neurosurgery

## Resident Rotation Objectives: Cardiac Surgery

### Introduction

Neurosurgery Residents rotating on the Cardiac Surgery service should develop a working knowledge of the following Core Objectives:

1. Understanding of the risks and benefits of cardiovascular surgery.
2. Rationale for the selection of candidates for surgical treatment.
3. Pre- and post-operative management of patients with cardiovascular disease and associated co-morbidities.

### Medical Expert

The resident will achieve and demonstrate competency in their ability to:

1. Describe the anatomy and physiology of the cardiopulmonary system.
2. Interpret hemodynamic data, and discuss the indications and contraindications of inotropic and vasoactive agents.
3. Manage critically ill patients in the CV-ICU.
4. Place chest tubes.
5. Discuss surgical indications for various types of cardiac diseases (including valvular disease, atherosclerosis, thoracic aneurysm dissections), as well as the natural history of these diseases. Describe and understand the surgical outcomes including complications and risk/benefit ratio.
6. Identify anticoagulation and antiplatelet therapies in cardiac surgery patients (valves, atrial fibrillation, diffuse CAD, previous stents).

### Communicator

1. Gather essential information from patients and family members effectively and compassionately.
2. Interact effectively with patients and family members from a diverse background.
3. Accurately document patient encounters. Maintain complete and legible progress notes in the chart.
4. Communicate treatment plans with support staff and be able to listen and respond to patients and support staff questions in a positive manner.
5. Make clearly formulated consultation requests to other physicians.

## **Collaborator**

1. Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient.
2. Understand the role of the physician and contribute in an effective manner to multidisciplinary team meetings.
3. Understand the importance of coordination in rehabilitation and discharge planning for patients recovering from cardiac procedures.
4. Develop a management plan for patients that include consultation of appropriate medical and allied health care services.
5. Work with discharge planning services to ensure the transition to home is made as smoothly as possible.

## **Leader**

1. Effectively manage their time, as demonstrated by punctuality and timeliness in completion of duties (e.g. patient assessments, completion of discharge summaries).
2. Effectively allocate health care resources, by choosing appropriate investigations and interventions that adhere to good standards of practice.
3. Demonstrate the ability to coordinate the management plan for patients utilizing multiple members of the health care team.
4. Demonstrate the ability to effectively manage the activities of more junior staff to further their education and contribution to the health care team.
5. Understand the importance and role of quality assurance activities.

## **Health Advocate**

1. Develop skills in identifying important risk factors for cardiac disease and counseling patients appropriately (e.g. smoking cessation, diet and exercise advice.)
2. Become aware of services and support groups available to patients and be able to communicate these to patients.
3. Identify problems and inefficiencies in the provision of patient care, and consider means of assessing and addressing them

## **Scholar**

1. Demonstrate ability to evaluate the medical literature utilizing critical appraisal techniques, to provide quality evidence-based care.
2. Demonstrate proficiency at teaching and guiding medical students.
3. Participate in case conferences and journal club (if applicable).
4. Demonstrate an adequate understanding of the principles of research, including ethical principles.

## **Professional**

1. Interact with patients and their families in a respectful, sensitive, and ethical manner. Demonstrate kindness, empathy and maturity.
2. Interact with faculty members, other residents, and members of the health care team in a respectful and responsible manner, fostering a supportive work environment.
3. Handle all patient information confidentially.
4. Demonstrate a continuous improvement in the skills and knowledge necessary for the practice of surgery.
5. Demonstrate insight into personal limitations and recognize when consultation is the most appropriate course of management.