UND School of Medicine & Health Sciences
University of North Dakota

Elective Description

Campus: Northeast (Grand Forks)
Department: Internal Medicine
Elective/Experience Title: Clinical Cardiology
Course Number: IMED 9321
Location of Elective: Altru Health System - Grand Forks, ND

Preceptor(s): Rabeea Aboufakher, MD; Puvanalingam Ayyadurai, MD; Mikhail Kirnus, MD, FACC; & Mevan Wijetunga, MD
Period(s) Offered: all
Course prerequisites:
Number of students per period: 1 per period depending on preceptor availability
Revised Curriculum Phase(s): 2 & 3

Purpose: To expose students to cardiology outpatient and inpatient care in addition to cardiac imaging and procedures.

Objectives:

Following successful completion of this elective, the student will be able to:

1. Diagnose, risk stratify, and understand the different initial treatments for patients presenting with acute coronary syndromes.
2. Understand medical treatment of patients with chronic vascular disease in the outpatient setting.
3. Evaluate patients with heart failure in the outpatient and inpatient setting, understand systolic and diastolic dysfunction, know evidence-based medical treatments for heart failure, and have an idea about indications for advanced heart failure treatments (LVAD, transplantation).
4. Evaluate patients with valvular heart disease (important history and physical examination elements), and recognize treatment options and indications for cardiology referral.
5. Recognize common arrhythmias and initial evaluation and treatment options.
6. Read ECGs in a step-wise manner and recognize common ECG patterns.
7. Understand indications of stress testing and become familiar with different stress test types and management decisions based on the stress test results.
8. Understand the basics and indications of trans-thoracic and trans-esophageal Echocardiography.

Instructional Activities:

During this elective, the student will be involved in/experience:

1. Cardiology outpatient care in the office setting.
2. Cardiology inpatient care in the hospital and emergency department setting.
3. Cardiac stress test supervision and interpretation.
4. Cardiac procedures including left and right heart catheterization, coronary angiogram, and coronary and peripheral interventions.
5. ECG and echocardiography interpretation.

Criteria for Grading:

During and following this elective, the preceptor will:

1. Utilize the standardized UNDSMHS senior elective evaluation form.
2. Assess by direct observation the student's ability to perform a cardiac history and physical examination.
3. Assess by direct observation the student's knowledge of key cardiac subjects and his/her ability to improve this knowledge by the end of the rotation by short discussion sessions on a regular basis.
4. Assess by direct observation the student's bedside manners and professionalism.
5. Assess by direct observation the student's communication skills with patients, staff, and the preceptor.