CIRC 5011
Circulation

Module Objectives

- obj A Demonstrate knowledge of normal structure and function of the circulatory system (2.1).
- obj B Demonstrate knowledge of the pathophysiology of disease of the circulatory system (2.2).
- obj C Demonstrate knowledge of the clinical manifestations of common conditions/disorders of the circulatory system (2.3).
- obj D Demonstrate knowledge of the pharmacotherapeutic modalities for common circulatory conditions and disorders (2.4).
- obj E Understand the basic principles of clinical and translational research in cardiovascular and hematopoietic disorders (2.5).
- obj F Understand the epidemiology of common cardiovascular and hematopoietic disorders (2.6).
- obj G Obtain a cardiovascular history (3.1).
- obj H Perform a cardiovascular physical exam (3.2).
- obj I Interpret common tests including EKG and CBC (3.3).
- obj J Demonstrate clinical reasoning and problem solving for common cardiovascular and hematologic conditions (3.6).

Instructional Methods

- Case-based
- Conference
- Independent Learning
- Laboratory
- Lecture
- Peer Instruction
- Self-study
- TBL
- Quizzes

Content Overview

Week 1: Normal Cardiovascular Function, ECG Introduction, and Hypertension

- Normal cardiovascular histology and vascular pathology
- Intro to the cardiac conduction system
- ECG Problems
- Hypertension

Week 2: Cardiac Output, Heart Failure, and Arrhythmia

- Oxygen delivery
- Coronary flow
- Bradycardia cases
- Tachycardia cases
- ECG
- Hypertension and pericarditis
- Physical exam in heart failure
- Hypertension pathophysiology and management

Week 3: Valvular and Congenital Disease

- Cyanotic newborn
- Cyanotic obstructive heart disease (coarctation, PS, AS)
- Congenital heart disease and CHD screening (TAPVR)
- Surgical vs. Medical perspectives on HFCM
- Hypertension therapeutics

Week 4:

- Pathology of ischemic heart disease and atherosclerosis
- Imaging in coronary disease
- Stable CAD including nonatherosclerotic
- Imaging in coronary disease
- Unstable CAD

Week 5: Exam Week

- Physiology Review
- Clinician Review
- Congenital Review