

Curriculum on Cardiology Danbury Hospital Internal Medicine Residency Program

Faculty Representative: Andrew Keller MD
Faculty Editor: Dino Messina MD PhD, Ivel DeFreitas MD
Resident Representative: A. Lugulescu, J. Periyapperuma
Revision Date: September 2007

A. Educational Purpose and Goals

The cardiology rotation allows the intern/resident to participate in the care of patients with a wide range of cardiovascular problems. During this rotation, house staff will care for patients on the telemetry floors (8 West and East). The house staff will interact with Attendings and mid-level providers from the division of cardiology, as well as cardiovascular disease fellows.

B. Teaching Methods

Teaching methods on the cardiovascular rotation include :

- Attending teaching rounds
- Patient management discussions
- Conferences which are specific to this rotation including weekly EKG conferences and cardiac catheterization conference
- Review of diagnostic studies including echocardiograms and coronary angiograms
- Bedside clinical rounds

C. Educational Content

1. Mix of Diseases

Patients with common acute and chronic cardiac conditions such as: Acute Coronary Syndrome, Aortic dissection, Congestive Heart Failure, Brady - Tachy Arrhythmias, Pericarditis, Myocarditis and Endocarditis and, Valvular Heart Disease.

2. Patient characteristics

See Core Curriculum

3. Types of clinical encounters

See the Core Curriculum

4. Procedures and services

- Physical exam: focused in cardiovascular examination.
- Laboratory interpretation: Cardiac enzymes, different modalities of stress test, echocardiogram and catheterization.
- Others: Pacemaker placement, catheterization, electrical cardioversion and Transesophageal echocardiogram (as observer).

5. Reading lists, other educational resources

Resources for education for the interns and residents include:

- Cardiovascular fellow and attending interaction both in didactic and nondidactic settings.
- Cardiovascular textbooks, journals and other authored materials which are available both online, and in Danbury Hospital Library.

B. Method of Evaluation of Resident and Faculty Competence

The residents are evaluated based on their performance and professionalism on the cardiovascular rotation. Their clinical competency is observed during the rotation, as well as their leadership and teaching skills. Review is made of the resident's history/physical exam, progress notes and other documentation. Residents' attendance and performance at rounds and conferences is monitored. Residents evaluate the teaching skills and effectiveness of the attending physician. In addition the residents perform an overall evaluation of the cardiology rotation. The interns are supervised by the more senior residents. All housestaff are supervised by attending physicians. Cardiovascular fellows are often involved and play a role in resident supervision.

C. Rotation Specific Competency Objectives

Please refer to the Core Curriculum for the expected General Medicine Curriculum core competency objectives. The rotation specific objectives are provided below.

1. Patient Care

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to fulfill:

- Recognize a wide variety of cardiovascular problems, and make a determination as to severity and urgency of these problems.
- Understand the indications, uses, side effects and differences among the commonly used cardiovascular drugs.
- Understand and use the basic principles of EKG and rhythm interpretation
- Begin to understand the indications and uses for both noninvasive and invasive cardiovascular examinations.
- Obtain/perform a comprehensive cardiovascular history and physical exam.
- Be able to recognize a wide variety of supraventricular and ventricular arrhythmias on EKG.
- Be able to develop a differential diagnosis for the evaluation of common cardiovascular symptoms including shortness of breath, chest pain, palpitations, and syncope.

2. Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents are expected to fulfill:

- Discuss the major classes of cardiovascular drugs, their mechanism of action, and appropriate uses.
- Be able to discuss basic cardiovascular physiology and pathophysiology including concepts in electrophysiology, hemodynamics and coronary artery disease.
- Discuss the major classes of cardiovascular drugs, their mechanism of action, and appropriate uses.
- Be able to discuss basic cardiovascular physiology and pathophysiology including concepts in electrophysiology, hemodynamics and coronary artery disease.

3. Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates. Residents are expected to fulfill:

- Communicate effectively with physicians, other health professionals, and health related agencies.
- Work effectively as a member or leader of a health care team or other professional group.
- Maintain comprehensive, timely, and legible medical records.
- The resident on the cardiovascular rotation should prepare written notes which are legible and timely.
- The resident on the cardiovascular rotation should be able to concisely and succinctly present relevant patient data to other colleagues and attending physicians.

4. Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:

- Compassion, integrity, and respect for others.
- Responsiveness to patient needs that supersedes self-interest.
- Respect for patient privacy and autonomy.
- Accountability to patients, society, and the profession.
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
[as further specified by the RRC]

- Gain an understanding of the psychosocial effects of cardiovascular disease in the patient as an individual.
- Understand the unique role that the physician plays in patients with cardiovascular disease.
- Understand the societal impact of cardiovascular disease including costs to patient lifestyle and productivity, as well as monetary costs of therapy.

5. Practice Based Learning

Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life long learning. Residents are expected to develop skills and habits to be able to fulfill :

- Identify and perform appropriate learning activities.
- Locate, appraise and assimilate evidence from scientific studies related to their patients' health problems.
- Use information technology to optimize learning.
- Participate in the education of patients, families, students, residents and other health professionals, as documented by evaluations of a resident's teaching abilities by faculty and/or learners.
[as further specified by the RRC]
- Perform literature searches and text book reading on topics which are relevant to the patients being seen on the cardiology service.
- Discuss with patients the issues surrounding their cardiovascular disease, and the reasons for therapeutic choices.

6. Systems Based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents are expected to fulfill:

- Coordinate patient care within the health care system relevant to their clinical specialty.
- Incorporate considerations of cost awareness and risk-benefit analysis in patient care.
- Work in interprofessional teams to enhance patient safety and improve patient care quality.
[as further specified by the RRC]
- Assist patients in negotiating the health care system, including gaining access to adequate cardiovascular and ancillary services.
- Gain an awareness of the cost and risk benefit issues when recommending cardiovascular testing.
- Work with nursing, nutrition, and cardiac rehabilitation to enhance the care for cardiovascular patients.

