



**Educational Goals and Objectives for Rotations on:
Cardio Combination**

Educational Goals and Objectives:

Internal Medicine Residents will train on Cardiovascular consult and clinic rotation to:

- Become competent in diagnosis and initial treatment of common cardiovascular conditions
- Become proficient with a select group of cardiovascular conditions such as acute coronary syndrome, congestive heart failure, and atrial fibrillation.
- Develop appreciation and initial exposure to invasive procedural skills such as angioplasty and stenting, EP evaluation, and transesophageal echocardiography

Patient Care and Procedural Skills:

PGY-3:

Heart failure team

- Demonstrate an ability to take a history and design a differential diagnosis for acute congestive heart failure.
- Demonstrate basic proficiency in the management of acute congestive heart failure.
- Demonstrate inability to create a differential diagnosis for triggering factors for heart failure exacerbations.
- Demonstrate the ability to screen for medications that might contribute to heart failure.
- Demonstrate an ability to recommend changes to drug therapies and lifestyle modification modifications which can enhance the patient's ability to stay out of decompensated heart failure.
- Evaluate and assess chronic heart failure and give recommendations to the consulting physicians regarding best practices and heart failure management.

Interventional cardiology team

- Complete a consultative-type history and physical examination for patients who require interventional cardiology.
- Develop recommended assessment including recommended test after history and physical and looking at all the data elements such as EKG, lab, and x-ray.
- Discuss all cases with the attending interventional cardiologist and confirm or discuss rationales for alternative use.
- Use SBAR for handover processes.
- Present cases in an organized fashion during rounds and while staffing cases
- Document findings in the EHR using the proper consult and communication to old notes

Electrophysiology team

- Perform the initial admission/consult work-up, assembling all the relevant data including phone calls to outside hospitals, referring physicians within or outside NGHS, generating a differential diagnosis and management plan, and present this to the EP attending.
- Round daily on the patients she/he admits, review diagnostic studies, continuously refine the working diagnosis,



- Devise a management plan and oversee discharge planning, paperwork, and communication.

Noninvasive team

- Work directly with the noninvasive cardiologist to assess patients where a consult has been placed or a noninvasive test has been ordered, including:
 - transthoracic echo
 - transesophageal echo
 - noninvasive stress testing with and without imaging
 - tilt table testing.

Procedural Skills:

PGY-3:

- Gather information about the patient to determine a reason for why the testing is being ordered and what clinical condition is being considered as causing the patient's symptoms.
- Understand indications and contraindications for testing
- Interact with the patient during the pre- and post-testing period, able to explain the test and procedure to the patient and their family.

Medical Knowledge:

PGY- 3

Heart failure team

- Applies relevant clinical and basic science knowledge of the following:
 - Management of chronic heart failure
 - Types of heart failure
 - Heart muscle function
 - Valvular function and structure
- Explain the pharmacological mechanisms of drugs used in the treatment of heart failure.

Interventional cardiology team

- Discuss and explain the coronary anatomy and the blood supply of different sections of the heart
- Explain the evolution of coronary artery disease and plaque formation.
- Explain the various drug therapies and how they improve plaque stabilization and prevent coronary artery disease progression.
- Explain the pharmacology of anticoagulation and thrombolysis.
- Know the benefits and risks of direct intervention through catheter medicine versus medication management and coronary artery disease.
- Describe risks and complications that can arise following a interventional procedure including but not limited to pseudo aneurysm, thrombus, dissection, and tamponade.



Electrophysiology team

- Explain pathophysiology of bradycardia and tachyarrhythmias.
- Correctly evaluate EKGs to identify electrical abnormalities within the heart.
- Explain the pharmacology behind drugs used to treat bradycardia and tachyarrhythmias.
- Describe the role of left ventricular function in arrhythmia management.
- List indications and contraindications to various pacemakers used in cardiology.
- Explain the indications and contraindications for an AICD.

Noninvasive team

- State the indications and contraindications to the various tests which are being utilized including both transthoracic echocardiogram and transesophageal echo.
- Apply knowledge of risk factors to individual patients
- Explain the physiology and anatomy utilized in testing which is done on this service.
- Explain the pharmacology of drugs used to induce certain physiologic parameters during these tests.

Practice-Based Learning and Improvement:

PGY-3:

Each team

- Seeks and accepts feedback from team about patient care, organization and presentations.
- Understands EBM principles, and utilizes relevant research to support decision-making and teaching of junior team members.
- Appropriately integrates EBM with expert opinions and professional judgment.
- Ability to accurately self-assess skills and performance
- Identifies knowledge deficiencies and seeks to correct them.

Interpersonal and Communication Skills:

PGY3

Each team

- Effectively establishes rapport with patients and families.
- Able to deal with the most challenging patients and families with minimal direction.
- Provides timely and thorough electronic documentation of patient care.
- Effectively carries out difficult discussions, such as sensitive topic discussions with moderate faculty input.
- Provides teaching and feedback to more junior team members on their communication styles.
- Coordinates team communication to optimize patient care.
- Functions as an effective team leader with decreasing reliance on attending.



Professionalism:

PGY 3

Each team

- Demonstrates integrity, respect for others, honesty, and compassion.
- Strives for patient care and knowledge excellence.
- Reliably identifies and accomplishes necessary tasks.
- Sets a tone of respect and collegiality for the team.
- Acts as role model for patient care and professional behavior.

Systems-Based Practice:

PGY 3

Each team

- Utilizes the multidisciplinary resources necessary to care optimally for patients.
- Effectively collaborates with other members of the health care team to ensure comprehensive care for patients with medical illness, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, social workers, case managers, discharge planners, and providers of home health services
- Uses cost-conscious strategies in the diagnostic, treatment, and care of patients.
- Demonstrates willingness and ability to teach medical students and junior residents.

Evaluation methods:

- Direct observation during multi-disciplinary rounds
- Direct observation and bedside rounds with the patient (Mini-CEX)
- End of rotation global assessment tool