



Educational Goals and Objectives for Rotations on: Cardio Inpatient

Residents will rotate through cardiology inpatient rotations to:

- Develop skills to evaluate and manage patients with diseases of the cardiovascular system
- Familiarize them with the mechanisms, clinical manifestations, and diagnostic strategies for patients with acute and chronic diseases of the heart
- Teach them to implement primary and secondary preventive strategies and to refer patients to subspecialists at the appropriate time in their disease
- Help them understand the different therapeutic options for patients with cardiovascular disease at various stages
- Educate them regarding the ongoing management of a patient with: CAD, CHF, Atrial Fibrillation and Valvular Heart Disease

Patient Care and Procedure Skills: History Taking

- Demonstrate the ability to provide a problem focused history and physical examination.
- Demonstrate reinforced skills in cardiopulmonary resuscitation, phlebotomy, central line placement, hemodynamic monitoring, and temporary pacemaker placement.
- Demonstrate increased ability in the assessment and management of critically ill cardiac patients including formulation of a working diagnosis and plan.
- Review studies, data and procedural notes to more effectively manage patients.
- Provide clear and concise documentation in the medical record.

PGY 2 residents will be expected to:

- Participate in all patient care and shows proficiency in basic common conditions. But are expected to require assistance or ask for help for any advanced level interventions and inpatient care.
- Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources with moderate input from faculty.
- Specific historical areas include:
 - Risk factors for cardiovascular disease
 - Chest pain history with established key elements
 - Symptoms and risk factors for CHF and exacerbations of CHF
 - Accurate chronology of diagnostic and therapeutic procedures for patients with ischemia
 - Application of the NYHA classification for symptomatic CV disease
 - History relevant to valvular heart disease
 - History relevant to supraventricular and ventricular tachyarrhythmias
- Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources with minimal input from faculty.



- Demonstrates the ability to perform a routine:
 - Cardiac examination for evidence of congestive heart failure including abnormal PMI, JVP, HJR, S3
 - Systemic evaluation for evidence of cardiogenic or post procedure hemorrhagic shock
 - Presence, and location of systolic murmurs
 - Attempts to characterize abnormalities on exam with regular input from faculty.
 - Names and quantifies the significance of systolic and diastolic murmurs, including seeking for peripheral manifestations of the same
- Evaluations
 - Resident Competency Evaluation Form
 - Mini-CEX

Pt care: Medical Decisions

- PGY-2 Reliably recognizes critical illness and appropriately seeks assistance.
- Writes progress notes that identify important data and demonstrate thoughtful problem based assessment and plan.
- Defines, recognizes and initiates management for
 - Acute Coronary Syndromes
 - ST segment Elevation MIs
 - Non ST segment Elevation MIs
 - Congestive Heart Failure
 - depends on close faculty input
- Evaluation Tools Methods:
 - Resident Competency Evaluation Form
 - Chart Review/documentation

Pt care: Medical Decisions

- PGY-2 Reliably recognizes critical illness and can independently initiate management strategies.
- Correct ongoing management goals with moderate faculty input
- Identifies the indications, benefits (morbidity vs mortality), risks and contraindications for the following cardiovascular therapies:
 - 2b3a platelet inhibitors
 - ASA, Plavix and Heparin in ACS
 - thrombolytics
 - ACEI for AMI and for CHF
 - Beta blockers in ACS and CHF
 - Aldactone in CHF
- Relies on moderate faculty input
- Evaluations
 - Resident Competency Evaluation Form
 - Chart Review/documentation



Patient Care: Procedural skills

- PGY-2 Masters the cognitive, counseling and technical skills for:
 - central line placement in at least 2 or more sites
 - CPR
- Interprets:
 - Cardiac Enzymes
 - Bedside hemodynamic results for cardiogenic conditions
 - ECGS for acute ischemia, bundle branch blocks and narrow complex tachyarrhythmias
- Understands the indications for:
 - Cardiac Catheterization
 - Primary Angioplasty
 - Thrombolytics
 - Exercise and pharmacologic stress testing
 - Echocardiograms
 - Tilt Table testing
- Documents Appropriately
- Relies on close faculty input
- Masters the cognitive, counseling and technical skills for:
 - Central line placement at two or more sites
 - Utilization of transthoracic pacer
 - ACLS
 - ETT
- Interprets:
 - Echocardiograms
 - Nuclear stress tests (opt)
 - Simple cardiac catheterization films
 - EKGs for wide complex tachycardia and AV blocks
- Understands the indications for:
 - Angioplasty for stable angina
 - Valve Replacement
 - EPS testing
- Relies on moderate faculty input

- PGY-3 Independent in performing, interpreting and planning appropriate procedures for patients with cardiovascular disease.
- Understands the indications for:
 - Cardiac Transplantation
 - Cardiac EPS
 - AICD
- Functions almost independently.
- Evaluation methods:
 - Resident Competency Evaluation Form
 - Procedure Logs

Medical Knowledge



- Demonstrate knowledge of fundamental approaches to the evidence-based care of acute myocardial infarction, congestive heart failure, unstable arrhythmias, and other cardiovascular problems.
- Demonstrate knowledge of fundamental elements of cardiac anatomy, physiology and pharmacology, as well as the manifestations of common forms of cardiac pathophysiology through the cardiac physical exam.
- Correctly interpret common electrocardiographic findings including:
 - atrial and ventricular rates
 - common regular and irregular rhythms
 - p wave axis and morphology
 - QRS axis and duration
 - P-QRST morphology including patterns for hypertrophy, conduction delays, ischemia, pericarditis, electrolyte abnormalities, and common drug effects.
- PGY-2 residents are expected to show mastery of basic medical school knowledge such as anatomy physiology of the heart. PGY one residents also expected to show some mastery of common conditions such as how to address chest pain and the rationale behind the treatments. PGY 2 residents are also expected to show proficiency in basic pharmacology understanding drug mechanisms and rationales.
- PGY 2 residents are expected to show a medical knowledge that is more consistent with them having been a manager for the last one year. PGY two residents should be able to understand and articulate the treatments needed for most common acute conditions such as shock and acute chest pain. PGY 2 residents are expected to be demonstrating and need to read and learn much more particularly of studies and journal articles which inform the medical treatment processes of the CCU.
- Evaluation Methods:
 - Direct during multidisciplinary rounds during rounds, review of assessment and plans written in notes
 - End of rotation global assessment evaluation
 - End of Rotation Quiz.

Interpersonal and Communication Skills

PGY2:

- Demonstrate empathy always with the patient and families
- Demonstrate leadership communication skills such as use a questioning attitude (humble inquiry), use safety toolkit items like ask clarifying questions, and SBAR when handing over patients at shift changes or when new attendings/consultants join the case of your patients.
- Demonstrate leadership communication skills such as 5 to 1 positive and negative feedback. Catch people doing things right and complement them. Demonstrate an attitude of gratitude with team members.



- PGY 2 Provide supervision by the PGY2 resident for the PGY1 resident participating in this rotation (in the unlikely event that there is one) under the supervision of a specialty attending physician
- Follow assigned patients while under the direct supervision of a specialty attending interacting productively in a team care approach.
- Demonstrate culturally competent care to patients of various ethnicities, and sensitivity to the dignity of critically ill and/or terminal patients.
- Evaluation methods:
 - Direct observation during multidisciplinary rounds
 - Direct observation during rapid responses and critical responses to patient decline
 - End of Rotation Global Assessment tool

Practice Based Learning and Improvement

- Demonstrate improving ability to access and critically appraise cardiac literature appropriate to the care of patients, discussing such information as appropriate during cardiology attending rounds case discussions and at Morning Report.
- Assist in the achievement of performance improvement projects and goals identified by the cardiology services, including current projects targeting the care of patients with myocardial infarction and acute coronary syndromes.
- Expectations of Proficiency by Levels: We do not anticipate any PGY 1 residents on this rotation but in the event of a rotator, the PGY 1 resident will be expected to be proficient at gathering a timely and focused H&P, alerting the attending or PGY 2 resident immediately of any alarm symptoms such as tachypnea, shortness of breath, acute or unremitting chest pain, etc.
- PGY 1 residents are expected to be functioning as interpreters of symptoms and data and attempting to make accurate differential diagnosis and to recognize when to start common treatments in cardiac patients such as aspirin, nitroglycerin, and statins.
- PGY 2 residents are expected to be working at the manager level and showing ownership of the patients assigned to them. PGY 2 residents are expected to show intellectual curiosity for the literature and rationale behind treatments and cardiology.
- Evaluation methods
 - Direct observation of quoting the literature during attending rounds
 - Direct observations of discussions held after rounds and on downtime about goals and objectives
 - End of Rotation Competency Assessment

Professionalism:

- Reflect compassion, commitment, integrity, and responsibility throughout his/her interactions.
- Reflect sensitivity to patients of all ages, genders, religious,
- Show leadership and selflessness in giving of time to the patient and their family in this time of anxiety.
- Demonstrate respect for all team members in communicating especially during critical moments.
- PGY 2 residents will be expected to demonstrate this always.



- Evaluation method
 - Chart review of daily notes
 - Direct observation of presentations on rounds
 - End of Rotation Competency Assessment tool.

System-based practice

- Demonstrate an attitude of inquiry regarding the systems that they are caring for the patient (ER, Telemetry Floor, ICU, etc.)
- Can list the proper support within the system that needs to be activated early in the care of the patient to align the patient with the proper support after discharge for success at home and to prevent readmission.
- Apply information learned in the intern rotation transitions of care medicine to design a treatment program that utilizes all the best supports within the Northeast Georgia region for this to help patients maintain success following their acute cardiovascular crisis. Examples such as Visiting nurses, Paramedicine, 3 Day follow ups, etc.
- Activate system based resources such as consulting subspecialist cardiologists, other specialty physicians, palliative care, spiritual care and other resources within the health system to achieve timely care and best outcomes.
- PGY 2 residents are expected to demonstrate a solid understanding of the system resources for common conditions but may find themselves still unaware of certain resources for highly specialized care. This rotation will bring to light some of those gaps in knowledge.
- Evaluation methods:
 - Stimulated chart recall - direct observation of care plans designed and discussed during attending rounds
 - Direct observation of care plans written in notes
 - End of rotation competency assessment tool.