



**SAN ANTONIO
REGIONAL HOSPITAL**

Cardiology Rotation

Competency-Based Goals & Objectives by Level of Training

Structured on the Six ACGME Core Competencies | Academic Year 2026

Effective with PEC Approval: July 1, 2025 (updated July 2026 for ACGME site visit)

Subspecialty Rotation Directors: United Heart Institute- Samir Samarany, MD (core rotation);

Electives- Robert Castro, DO; Hammad Khan, MD; ModyVatsal, MD; Roger Duber, MD

Rotation Description and Educational Purpose

The Cardiology rotation provides residents with graduated experience in the evaluation and management of cardiovascular disease across inpatient cardiology wards, the coronary/cardiac intensive care unit, inpatient consultation, ambulatory cardiology clinics, and the noninvasive and invasive cardiac laboratories, supplemented by structured conferences. Over the course of training, residents progress from recognizing and initiating management of common cardiovascular problems under supervision (PGY-1), to independently managing common consults and supervising juniors (PGY-2), and finally to functioning as a junior consultant who leads complex and critical cardiac care and teaches (PGY-3).

Objectives below are stratified by level of training and mapped to the six ACGME Core Competencies. Each level reflects graduated responsibility and progressive independence consistent with the ACGME Internal Medicine Milestones. Residents and faculty should review the applicable objectives at the beginning and end of the rotation.

Clinical Content Domains

Residents are expected to gain experience across the following domains, with expectations increasing by training level (see the matrix that follows): electrocardiography and noninvasive cardiac diagnostics, coronary artery disease and acute coronary syndromes, heart failure and cardiomyopathy, arrhythmias and conduction disease, valvular and structural heart disease, antithrombotic and anticoagulation management, preventive cardiology and cardiovascular risk reduction, critical care cardiology and shock, and cardiac procedures and hemodynamics.

Supervision and Entrustment

All patient care is supervised by attending cardiology faculty. The level of supervision advances from direct supervision toward indirect supervision with progressive entrustment as residents demonstrate competence. Residents must recognize the limits of their abilities and request supervision and assistance appropriately at every level.

Clinical Content Domains and Graduated Expectations

The following matrix summarizes progressive clinical expectations by training level. Detailed competency-based objectives for each PGY level follow.

Content Domain	PGY-1	PGY-2	PGY-3
ECG & Noninvasive Diagnostics	Perform systematic 12-lead ECG interpretation (rate, rhythm, axis, ischemia);	Use ECG to guide management; order and interpret echocardiography,	Independently integrate advanced ECG, echocardiography, nuclear, and cardiac CT/MRI findings

Content Domain	PGY-1	PGY-2	PGY-3
	recognize STEMI and life-threatening findings.	stress testing, and cardiac biomarkers.	into complex decision-making.
Coronary Artery Disease / ACS	Differentiate cardiac from noncardiac chest pain; recognize and initiate guideline-based management of ACS.	Manage ACS with antithrombotic therapy and risk stratification; refer for catheterization and revascularization.	Lead management of complex or refractory ACS and post-PCI care; coordinate revascularization decisions.
Heart Failure & Cardiomyopathy	Recognize and manage acute decompensated heart failure; assess volume status by exam.	Titrate guideline-directed medical therapy (GDMT); manage diuresis and identify advanced-therapy candidates.	Lead management of advanced HF and cardiogenic shock; guide inotrope/MCS, transplant/LVAD, and palliative referrals.
Arrhythmias & Conduction	Recognize and initiate management of common tachy- and bradyarrhythmias.	Manage atrial fibrillation (rate, rhythm, anticoagulation) in the acutely ill patient.	Independently manage complex arrhythmias and peri-device/ablation care; recognize indications for EP referral.
Valvular & Structural Heart Disease	Recognize common murmurs and valvular lesions on examination and echocardiography.	Assess severity and complications of valvular disease and initiate management.	Coordinate multidisciplinary structural/valve (heart-team) evaluation and perioperative planning.
Antithrombotic & Anticoagulation	Initiate and monitor anticoagulation; recognize bleeding risk.	Manage anticoagulant and antiplatelet therapy, including periprocedural bridging.	Individualize complex antithrombotic regimens (triple therapy, mechanical valves, device patients).
Preventive Cardiology & Risk Reduction	Counsel on lifestyle modification and aggressive cardiovascular risk-factor control.	Apply guideline-based primary and secondary prevention (lipids, blood pressure, diabetes, smoking).	Individualize prevention for complex/high-risk patients and lead shared decision-making.
Critical Care Cardiology / Shock	Recognize shock and hemodynamic instability and escalate promptly.	Initiate management of cardiogenic shock, inotropes, and vasopressors with indirect supervision.	Independently manage shock, interpret invasive hemodynamics, and recognize indications for temporary MCS.
Procedures & Hemodynamics	Interpret basic hemodynamics; perform relevant ABIM procedures under supervision.	Interpret pulmonary-artery-catheter and catheterization data; assist in bedside procedures.	Independently interpret invasive hemodynamic and catheterization data to guide management.

PGY-1 Goals and Objectives

Foundational Level — Developing skills under direct and indirect supervision

Patient Care

Residents will provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of cardiovascular disease.

- Perform a focused cardiovascular history and physical examination, including assessment of volume status, murmurs, and peripheral perfusion.
- Perform systematic 12-lead ECG interpretation (rate, rhythm, axis, intervals, ischemia) and recognize STEMI and life-threatening arrhythmias.
- Recognize and initiate guideline-based management of common presentations (acute coronary syndrome, decompensated heart failure, atrial fibrillation) under supervision.
- Differentiate cardiac from noncardiac chest pain and triage appropriately.
- Recognize hemodynamic instability and cardiac emergencies and escalate promptly to senior residents and faculty.
- Counsel patients on cardiovascular risk-factor modification and medication adherence using the teach-back method.

Instructional / Training Methods	Evaluation Methods
– Didactics and case-based conferences – Textbook and journal readings – Cardiology ward, CCU, consult, and clinic experience – Cardiac catheterization and noninvasive-lab exposure – Simulation and procedure training – Direct patient care experience	– Direct observation and feedback by faculty – Milestone-based faculty evaluation (New Innovations) – Chart-stimulated recall and chart review – In-training examination – Self-assessment and reflection

Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, and cognate sciences and apply this knowledge to the care of patients with cardiovascular disease.

- Describe the pathophysiology of coronary artery disease, heart failure, common arrhythmias, and valvular disease.
- Interpret cardiac biomarkers (troponin, natriuretic peptides) and basic ECG and chest-imaging findings.
- Describe first-line pharmacology for ACS, heart failure, and rate/rhythm control per current ACC/AHA guidelines.
- Apply guideline-based indications for anticoagulation and antiplatelet therapy in cardiac patients.
- Identify indications for and basic interpretation of echocardiography and stress testing.

Instructional / Training Methods	Evaluation Methods
– Didactics and core-content lectures – Textbook and journal readings – Guideline review (ACC/AHA, ESC) – Multidisciplinary cardiovascular conferences – Direct patient care experience	– Direct observation and feedback by faculty – In-training examination – Milestone-based faculty evaluation – Chart review – Self-assessment and reflection

Practice-Based Learning and Improvement

Residents must be able to investigate and evaluate their care of patients, appraise and assimilate scientific evidence, and continuously improve patient care based on constant self-evaluation and lifelong learning.

- Identify personal knowledge gaps during patient care and use point-of-care references and ACC/AHA guidelines to address them.
- Incorporate faculty and senior-resident feedback into subsequent patient encounters.
- Participate actively in cardiology journal club and teaching conferences.
- Begin using the ACGME internal medicine milestones for structured self-assessment.

Instructional / Training Methods	Evaluation Methods
– Journal club (JACC, Circulation) – Guideline review sessions – Scholarly / quality-improvement project mentorship – Direct patient care experience	– Faculty evaluation – Project and presentation assessment – In-training examination – Self-assessment and reflection

Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

- Communicate clearly and respectfully with patients and families, using interpreters and plain language.
- Provide accurate, timely, and legible documentation of cardiovascular encounters.
- Deliver concise, organized verbal presentations and hand-offs to the team.
- Engage patients in shared decision-making regarding cardiovascular care under supervision.

Instructional / Training Methods	Evaluation Methods
– Role modeling by faculty – Communication workshops – Bedside rounds – Patient / family conferences – Direct patient care experience	– Direct observation and feedback on rounds – Multisource (360°) evaluation by patients and team – Consult and progress-note review – Self-assessment and reflection

Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles, including sensitivity to a diverse patient population.

- Demonstrate respect, compassion, and integrity toward patients, families, and colleagues.
- Adhere to HIPAA and principles of patient confidentiality.
- Recognize the limits of one's abilities and seek supervision and assistance appropriately.
- Demonstrate reliability, punctuality, and responsiveness to clinical responsibilities.
- Demonstrate cultural humility and sensitivity to diverse patient populations.

Instructional / Training Methods	Evaluation Methods
– Role modeling by faculty – Didactics on ethics and professionalism – Multidisciplinary patient / family conferences – Direct patient care experience	– Faculty evaluation – Multisource (360°) evaluation by team and patients – Self-assessment and reflection form

Systems-Based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, and the ability to call effectively on other resources to provide optimal, high-value cardiovascular care.

- Identify members of the multidisciplinary cardiovascular team (nursing, pharmacy, cardiac rehabilitation, social work) and refer appropriately.
- Practice cost-conscious ordering of cardiac laboratory and imaging studies.
- Perform safe transitions of care and accurate medication reconciliation for cardiac patients.
- Recognize systems factors—such as access to medications and cardiac rehabilitation—that affect cardiovascular care.
- Participate in a program population-health or quality project (e.g., guideline-directed therapy or blood-pressure control) by collecting data and supporting outreach.

Instructional / Training Methods – Role modeling by faculty – Multidisciplinary care conferences – Quality-improvement and systems initiatives – Direct patient care experience	Evaluation Methods – Faculty evaluation – Multisource evaluation by care-team members – Quality-improvement project participation – Self-assessment and reflection
---	--

PGY-2 Goals and Objectives

Developing Consultant — Managing common problems with indirect supervision and supervising juniors

Patient Care

Residents will provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of cardiovascular disease.

- Independently manage common cardiovascular consults (chest pain, heart failure, atrial fibrillation, syncope) with indirect supervision.
- Manage acute coronary syndrome, including antithrombotic therapy, risk stratification, and referral for catheterization.
- Titrate guideline-directed medical therapy for heart failure and manage decompensation and diuresis.
- Manage atrial fibrillation (rate, rhythm, and anticoagulation) in the acutely ill patient.
- Direct initial management of cardiac emergencies (unstable arrhythmia, cardiogenic shock) with indirect supervision.
- Supervise and support PGY-1 residents and students in the care of cardiac patients.

Instructional / Training Methods	Evaluation Methods
– Didactics and case-based conferences – Textbook and journal readings – Cardiology ward, CCU, consult, and clinic experience – Cardiac catheterization and noninvasive-lab exposure – Simulation and procedure training – Direct patient care experience	– Direct observation and feedback by faculty – Milestone-based faculty evaluation (New Innovations) – Chart-stimulated recall and chart review – In-training examination – Self-assessment and reflection

Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, and cognate sciences and apply this knowledge to the care of patients with cardiovascular disease.

- Apply ACC/AHA and other guidelines to the diagnosis and management of ACS, heart failure, arrhythmia, and valvular disease.
- Interpret echocardiography, stress testing, and cardiac biomarkers to guide management.
- Describe the pharmacology of antithrombotics, antiarrhythmics, diuretics, and guideline-directed heart-failure therapy.
- Risk-stratify patients for revascularization, anticoagulation (CHA₂DS₂-VASC, HAS-BLED), and device therapy.
- Describe the evaluation and management of valvular heart disease and perioperative cardiac risk.

Instructional / Training Methods	Evaluation Methods
– Didactics and core-content lectures – Textbook and journal readings – Guideline review (ACC/AHA, ESC) – Multidisciplinary cardiovascular conferences – Direct patient care experience	– Direct observation and feedback by faculty – In-training examination – Milestone-based faculty evaluation – Chart review – Self-assessment and reflection

Practice-Based Learning and Improvement

Residents must be able to investigate and evaluate their care of patients, appraise and assimilate scientific evidence, and continuously improve patient care based on constant self-evaluation and lifelong learning.

- Critically appraise cardiovascular literature and apply evidence to individual patient care.

- Lead a guideline-based or journal-club presentation.
- Use milestone-based self-assessment to set individualized learning goals.
- Participate in a quality-improvement or scholarly project relevant to cardiology.

Instructional / Training Methods – Journal club (JACC, Circulation) – Guideline review sessions – Scholarly / quality-improvement project mentorship – Direct patient care experience	Evaluation Methods – Faculty evaluation – Project and presentation assessment – In-training examination – Self-assessment and reflection
---	--

Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

- Communicate complex management plans (e.g., anticoagulation, device therapy, revascularization) to patients and referring teams.
- Provide effective written and verbal consultation to referring services.
- Role-model shared decision-making, including for anticoagulation and procedural risk.
- Facilitate hand-offs that ensure continuity for cardiac patients.

Instructional / Training Methods – Role modeling by faculty – Communication workshops – Bedside rounds – Patient / family conferences – Direct patient care experience	Evaluation Methods – Direct observation and feedback on rounds – Multisource (360°) evaluation by patients and team – Consult and progress-note review – Self-assessment and reflection
---	---

Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles, including sensitivity to a diverse patient population.

- Consistently demonstrate professional behavior and ethical practice under increasing autonomy.
- Model accountability by admitting and learning from errors.
- Balance supervisory responsibilities with direct patient-care duties.
- Maintain sensitivity to socioeconomic and cultural factors that influence cardiovascular care.

Instructional / Training Methods – Role modeling by faculty – Didactics on ethics and professionalism – Multidisciplinary patient / family conferences – Direct patient care experience	Evaluation Methods – Faculty evaluation – Multisource (360°) evaluation by team and patients – Self-assessment and reflection form
---	---

Systems-Based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, and the ability to call effectively on other resources to provide optimal, high-value cardiovascular care.

- Coordinate multidisciplinary cardiovascular care across cardiology, cardiac surgery, radiology, and cardiac rehabilitation.
- Apply cost-effective, evidence-based strategies to cardiac testing and treatment.

- Advocate for patients navigating medication access and insurance barriers.
- Contribute to safe systems of care through reliable care transitions and follow-up.
- Contribute to a population-health / quality-improvement project (e.g., GDMT optimization or hypertension control), applying PDSA methodology and tracking outcome measures.

Instructional / Training Methods – Role modeling by faculty – Multidisciplinary care conferences – Quality-improvement and systems initiatives – Direct patient care experience	Evaluation Methods – Faculty evaluation – Multisource evaluation by care-team members – Quality-improvement project participation – Self-assessment and reflection
---	--

PGY-3 Goals and Objectives

Junior Consultant — Independent, leadership, and teaching roles approaching autonomous practice

Patient Care

Residents will provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of cardiovascular disease.

- Function as a junior cardiology consultant, independently evaluating and managing complex and undifferentiated cardiovascular problems.
- Lead the management of complex consults (refractory heart failure, complex arrhythmias, structural/valvular disease, post-PCI complications).
- Independently manage cardiac emergencies and cardiogenic shock, stabilize critically ill patients, and escalate care appropriately.
- Interpret invasive hemodynamics and integrate advanced imaging into individualized management plans.
- Coordinate longitudinal, multidisciplinary care for complex cardiovascular disease, including heart-team and advanced-therapy evaluation.
- Anticipate, recognize, and manage post-procedure and perioperative cardiac complications.

Instructional / Training Methods	Evaluation Methods
– Didactics and case-based conferences – Textbook and journal readings – Cardiology ward, CCU, consult, and clinic experience – Cardiac catheterization and noninvasive-lab exposure – Simulation and procedure training – Direct patient care experience	– Direct observation and feedback by faculty – Milestone-based faculty evaluation (New Innovations) – Chart-stimulated recall and chart review – In-training examination – Self-assessment and reflection

Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, and cognate sciences and apply this knowledge to the care of patients with cardiovascular disease.

- Demonstrate mastery of cardiovascular pathophysiology and guideline-based management across the breadth of the specialty.
- Independently interpret complex ECGs, echocardiograms, stress and nuclear studies, and invasive hemodynamic data.
- Teach the evidence base and guideline rationale for cardiovascular management to junior learners.
- Apply nuanced management for special populations (pregnancy, chronic kidney disease, the elderly, perioperative, and cardio-oncology patients).
- Critically evaluate emerging cardiovascular therapies and evolving evidence.

Instructional / Training Methods	Evaluation Methods
– Didactics and core-content lectures – Textbook and journal readings – Guideline review (ACC/AHA, ESC) – Multidisciplinary cardiovascular conferences – Direct patient care experience	– Direct observation and feedback by faculty – In-training examination – Milestone-based faculty evaluation – Chart review – Self-assessment and reflection

Practice-Based Learning and Improvement

Residents must be able to investigate and evaluate their care of patients, appraise and assimilate scientific evidence, and continuously improve patient care based on constant self-evaluation and lifelong learning.

- Lead scholarly, quality-improvement, or educational projects in cardiology.
- Model self-directed, lifelong learning and evidence-based practice.
- Provide structured, constructive feedback to junior residents and students.
- Use milestone data to guide readiness for independent practice.

Instructional / Training Methods	Evaluation Methods
– Journal club (JACC, Circulation) – Guideline review sessions – Scholarly / quality-improvement project mentorship – Direct patient care experience	– Faculty evaluation – Project and presentation assessment – In-training examination – Self-assessment and reflection

Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

- Serve as an effective communication liaison between the cardiology service and referring or consulting teams.
- Lead difficult conversations (advanced heart failure, goals of care, procedural risk) with empathy and clarity.
- Role-model professional, concise, non-technical consultation.
- Ensure safe, complete hand-offs and care coordination as a supervising resident.

Instructional / Training Methods	Evaluation Methods
– Role modeling by faculty – Communication workshops – Bedside rounds – Patient / family conferences – Direct patient care experience	– Direct observation and feedback on rounds – Multisource (360°) evaluation by patients and team – Consult and progress-note review – Self-assessment and reflection

Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles, including sensitivity to a diverse patient population.

- Consistently role-model professionalism, ethics, and accountability for the team.
- Demonstrate leadership in creating a respectful, inclusive learning and care environment.
- Manage competing responsibilities and demonstrate readiness for autonomous practice.
- Advocate for patient welfare and equitable, culturally responsive cardiovascular care.

Instructional / Training Methods	Evaluation Methods
– Role modeling by faculty – Didactics on ethics and professionalism – Multidisciplinary patient / family conferences – Direct patient care experience	– Faculty evaluation – Multisource (360°) evaluation by team and patients – Self-assessment and reflection form

Systems-Based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, and the ability to call effectively on other resources to provide optimal, high-value cardiovascular care.

- Lead and coordinate multidisciplinary cardiovascular care and complex care transitions.
- Champion high-value, cost-conscious cardiac care and resource stewardship.
- Identify and help address systems-level gaps affecting cardiac patients (access, disparities, safety).
- Participate in and lead inter-professional teamwork to improve patient safety and quality.
- Lead or co-lead a population-health project (e.g., guideline-directed therapy or secondary-prevention optimization), analyzing outcomes, presenting results, and sustaining improvement.

Instructional / Training Methods – Role modeling by faculty – Multidisciplinary care conferences – Quality-improvement and systems initiatives – Direct patient care experience	Evaluation Methods – Faculty evaluation – Multisource evaluation by care-team members – Quality-improvement project participation – Self-assessment and reflection
---	--

Assessment, Milestones, and Faculty Evaluation Guidance

Resident Self-Assessment

- Complete a milestone-aligned self-assessment at mid-rotation and end-of-rotation, mapped to the six ACGME competencies and progressive independence.
- Identify individualized learning goals and review progress with faculty.
- Reflect on feedback and document plans for improvement.

Faculty Evaluation Guidance

Assessment emphasizes graduated autonomy and entrustment. Faculty should base evaluations on multiple, longitudinal observations rather than a single encounter.

- Milestone-based assessment mapped to the ACGME Internal Medicine Milestones.
- Direct observation of clinical performance, consultation, and procedures.
- Chart-stimulated recall and review of documentation and consult notes.
- Multisource (360°) evaluation from faculty, peers, nursing, allied health, and patients.
- Timely, specific, actionable feedback with a documented action plan.
- Documentation of all evaluations in New Innovations.

Entrustment guidance: most PGY-1 residents progress from requiring proactive supervision toward reactive (on-request) supervision by year end; most PGY-2 and PGY-3 residents progress from reactive supervision toward independent performance and, for PGY-3, the ability to supervise and instruct others.

Recommended Learning Resources

- ACC/AHA Clinical Practice Guidelines — latest evidence-based guidelines on cardiovascular disease management.
- The Washington Manual of Cardiology — practical, concise reference for inpatient and outpatient cardiology management; highly recommended for residents.
- Learning EKG: Portable Quick Reference — a carryable pocket guide to ECG interpretation, ideal for on-call, ward, and clinic use.
- UpToDate — continuously updated online resource with comprehensive cardiovascular articles.
- ACC Self-Assessment Program (SAP) modules — ACC-endorsed self-study modules for continuing education.
- Journal Club — regular review of key articles from the Journal of the American College of Cardiology (JACC) and Circulation, with the European Heart Journal for optional advanced reading.
- CME Conferences — ACC Annual Scientific Session, AHA Scientific Sessions, and local/regional cardiovascular CME courses.

Guideline references: American College of Cardiology / American Heart Association (ACC/AHA) Clinical Practice Guidelines; European Society of Cardiology (ESC) Guidelines; ACGME Internal Medicine Milestones.