

ACGME Core Competencies:

The curriculum is designed to meet the required core competencies as defined by the ACGME.

- A. PATIENT CARE:** Fellows must be able to provide patient care that is compassionate, appropriate, and effective in the treatment of health problems and the promotion of health.
- B. MEDICAL KNOWLEDGE:** Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.
- C. PRACTICED-BASED LEARNING AND IMPROVEMENT:** Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.
- D. INTERPERSONAL AND COMMUNICATION SKILLS:** Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates.
- E. PROFESSIONALISM:** Fellows must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
- F. SYSTEMS-BASED PRACTICE:** Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

The curriculum assures the teaching and assessment of these competencies, and the following listing of general core competency elements applies to all rotations of the fellowship. Core competency-related teaching and assessment that is specific to individual rotations will be identified in the "Objectives" section of the curriculum for each rotation.

Patient care:

1. Fellows will demonstrate the ability to take a history relevant to cardiovascular diseases and perform a directed cardiovascular physical examination in an adult patient population that includes both men and women and is ethnically diverse. Patient encounters will occur in both the inpatient and outpatient setting, including all cardiac procedure laboratories.
2. Fellows will demonstrate the ability to judiciously order diagnostic tests that are clinically appropriate and cost effective.
3. Fellows will demonstrate the ability to safely perform all invasive diagnostic tests for which they seek certification. In addition to procedure performance, fellows will be expected to demonstrate knowledge of appropriate indications, contraindications, and post-procedure complications specific to each cardiac procedure.
4. Fellows will demonstrate the ability to accurately interpret the results of all invasive and non-invasive diagnostic tests and procedures for which they seek certification.
5. Fellows will demonstrate the ability to integrate all social aspects of patient care, including gender sensitivity, cultural diversity, and economic issues.
6. Fellows will demonstrate the ability to provide appropriate follow-up care in both the inpatient and outpatient setting.
7. Fellows will demonstrate the ability to synthesize all history, physical examination, and diagnostic testing information into a well-thought out logical plan of care that is documented in a clearly organized consult or note.
8. Fellows will demonstrate the ability to triage and manage critically ill patients in the on-call setting.
9. Fellows will demonstrate the ability to be patient advocates by utilizing hospital resources, such as social work, consult services, pharmacy services, etc, to help facilitate the best possible patient care.
10. The above elements will be evaluated by direct observation and interaction with the cardiology faculty.

Medical Knowledge:

1. Fellows will assist in conducting rounds on inpatient services and/or present patients directly thereby allowing the supervising attending physician to assess their medical knowledge as it relates to specific patient cases.
2. Fellows will provide periodic didactic teaching sessions for the house staff on inpatient teaching rounds.
3. Fellows are expected to develop a reading system that will facilitate a broad

knowledge base of cardiology. This reading system should include major cardiology texts, landmark clinical trials, and current literature published in common cardiology journals.

4. Fellows will present at a variety of weekly conferences, including Echo and Cath Conference.
5. Fellows will give a formal grand rounds lecture during their third year of fellowship.
6. Fellows will present an article yearly at Journal Club.
7. Fellows will maintain a thorough procedure log to document technical skills training.
8. Fellows are expected to attend at least 80% of teaching conferences that are designed to cover a thorough curriculum in cardiovascular diseases.
9. Each fellow will have the opportunity to attend a national meeting once a year.
10. Fellows present patients to the attending and are directly observed while performing invasive procedures.

Practice-Based Learning and Improvement:

1. Fellows will learn to use information technology, literature sources, and other available resources to learn to practice evidence-based medicine that is guided by sound medical principles consistent with the standard of care and approved practice guidelines.
2. Fellows will learn to individualize patient management based on the available resources and the circumstances particular to the patient.
3. Fellows must be able to analyze their clinic and rotation experiences and discuss methods for improvement as it relates to patient care, fellow education, and junior house staff education.
4. Fellows must be able to recognize their own limitations in knowledge base and clinical skills and be receptive to life-long learning.
5. Fellows will periodically meet as a group with the program director to discuss identified problems and potential solutions.
6. Fellows must be able to use the medical literature to update their practice methods and improve patient care.
7. Fellows must be able to critically evaluate the medical literature.
8. Fellows approach to and use of the medical literature will be assessed by the supervising staff physician on a given rotation.
9. The ability of the fellow to critically evaluate the literature will be assessed during the fellow's yearly presentation at journal club.

Interpersonal and Communication Skills:

1. Fellows will learn to effectively communicate as a consultant cardiologist to the referring health care provider and other members of the health care team.
2. Fellows will learn to communicate a patient's medical diagnosis and potential therapies or procedures in a manner that is easily understood by the patient and his or her family members.
3. Fellows will learn to generate accurate, thorough, and easily understood reports for cardiac procedures.
4. Fellows will learn to listen to and understand patient and family member concerns.
5. Fellows are expected to provide thorough, timely, and legible written consultations in the patient's medical record.
6. These skills will be evaluated by direct observation from the attending physicians as fellows rotate through the clinical services, and the results will be reported via monthly rotation evaluations.

Professionalism:

1. Fellows are expected to treat patients and their family members, colleagues, house staff, support staff, and administrative staff members with appropriate respect.
2. Fellows are expected to approach patient care with compassion and integrity and to be sensitive to individual patient needs with respect to patients' age, gender, culture, and/or disabilities.
3. Fellows are expected to maintain the highest ethical standards including maintaining strict patient confidentiality, ensuring adequate informed consent, adhering to ethical business practice, and informing patients of all practical therapeutic options.
4. Fellows are expected to be committed to excellence and on-going professional development.
5. Fellows are expected to report to work in a timely fashion that provides adequate time to prepare for rounds, instruct junior house staff, and attend to complicated or critically ill patients.
6. Fellows will check out any patient issues that may need attention overnight to the on-call fellow.
7. Professionalism will be evaluated through direct observation by attending physicians and reported via rotation evaluations.
8. Professionalism will be evaluated by support staff members via 360 degree evaluations that will be developed.

Systems-Based Practice:

1. Fellows will learn to interact professionally in the context of the health care system as a whole and remain sensitive to the role of ancillary services, other health care providers, good business practice, and adherence to high ethical standards.
2. Fellows will learn to work with all members of the health care team (nurses, social workers, pharmacists, etc) to provide the best and most efficient plan of care for all patients.
3. Fellows will specifically learn to integrate various cardiology services and procedures with the medical and surgical services involved in the patient's care.
4. Within cardiology, fellows will learn to integrate the services and procedures provided by the various cardiac disciplines involved in the patient's care.
5. Fellows will learn to partner with a patient's primary care provider in order to ensure that the best possible care is provided to the whole patient.
6. Fellows will learn to practice cost-effective health care while not compromising quality of care.
7. Fellows are expected to be strong patient advocates.

Conferences

The training program provides didactic instruction in the following specified topics, with which each fellow is expected to demonstrate a good understanding.

1. Basic science
 - a. Cardiovascular anatomy
 - b. Cardiovascular physiology
 - c. Cardiovascular metabolism
 - d. Molecular biology of the cardiovascular system
 - e. Cardiovascular pharmacology
 - f. Cardiovascular pathology
2. Prevention of cardiovascular disease
 - a. Epidemiology and biostatistics
 - b. Risk factors
 - c. Lipid disorders
3. Evaluation and management of patients with:
 - a. Coronary artery disease and its manifestations and complications
 - b. Arrhythmias
 - c. Hypertension

- d. Cardiomyopathy
 - e. Valvular heart disease
 - f. Pericardial disease
 - g. Pulmonary heart disease
 - h. Peripheral vascular disease
 - i. Cerebrovascular disease
 - j. Heart disease in pregnancy
 - k. Adult congenital heart disease
 - l. Complications of therapy
4. Management of:
- a. Acute and chronic congestive heart failure
 - b. Acute myocardial infarction and other acute ischemic syndromes
 - c. Acute and chronic arrhythmias
 - d. Preoperative and postoperative patients
 - e. Cardiac transplant patients
5. Diagnostic techniques, including:
- a. Magnetic resonance imaging
 - b. Fast compute tomography
 - c. Positron emission tomography