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Guidelines for Cardiovascular Training Programs

Beginning in September 1981, the Accreditation Council for Graduate Medical Education (ACGME) initiated an accreditation process for nine subspecialty training programs of Internal Medicine. As the Internal Medicine residency training program of an institution is reviewed, simultaneously these nine subspecialty programs will be reviewed.

The following special requirements for subspecialty educational programs in cardiology have been adopted by the ACGME:

1. Educational Program

A subspecialty educational program in cardiology must be organized to provide experience at a sufficient level for the trainee to acquire the competency of a specialist in the field; it shall not be less than two years' duration.

Clinical experience should include opportunities to observe and manage patients with a wide variety of adult cardiovascular disorders on both an inpatient and outpatient basis. The trainee should be given an opportunity to assume continuing responsibility for both acute and chronically ill patients to learn the natural history of cardiovascular disorders, as well as the effectiveness of therapeutic programs.

The program should be structured to permit some individuals to develop procedural and technical skills essential to the performance of one or more forms of invasive cardiac diagnostic studies: hemodynamic, angiographic and electrophysiologic. All trainees must have the opportunity to acquire skill in the interpretation of data derived from these invasive studies, as well as skill in acquisition and interpretation of data derived from other clinical modalities associated with cardiology.

2. Facilities and Resources

Modern facilities to accomplish the overall educational program must be available and functioning. These include inpatient, ambulatory care and laboratory resources. Specifically, there should be laboratories for cardiac hemodynamics and angiography, including vascular angiography. There should be provision for noninvasive cardiac procedures, including echocardiography, electrocardiography and exercise tolerance testing. Additional facilities for electrophysiologic studies are desirable. Other resources should include facilities for assessment of peripheral vascular disease, pulmonary physiology, cardiac roentgenography and nuclear cardiology. Clinical care units should include coronary intensive care facilities, cardiac surgery intensive care facilities, resources for cardiac rehabilitation and facilities for assessment of hypertension, the pathophysiology of heart rhythms and pacemakers. Close association and participation in a cardiovascular surgical program are important components of a cardiovascular training program.

3. Specific Knowledge and Skills

The training program must provide opportunities for the individuals to develop clinical competence in the overall field of adult cardiology. Procedural and manipulative skills with intravenous, intraarterial and intracardiac catheterization may receive emphasis in the program, depending on the intended area of practice of the subspecialty trainee. Competence in the indications for and the interpretation of data from such studies is an important part of the subspecialty educational program. Examples of knowledge and skills that are desirable include, but are not limited to, the following:

1. Cardiac hemodynamics and angiography.
2. Interpretative skills in electrocardiography, electrocardiographic stress testing, echocardiography and radiographic and nuclear studies of the heart and blood vessels.
3. Invasive and noninvasive electrophysiologic studies.
4. The pathophysiology, pathogenesis, natural history, diagnosis, management and prevention of diseases of the heart and blood vessels.
5. Diagnosis and management of peripheral vascular disease.
6. Cardiac resuscitation techniques and elective cardioversion.
7. Management and placement of cardiac pacemakers.
8. Coronary care unit management.
9. Congenital heart disease.