



AMERICAN OSTEOPATHIC ASSOCIATION

**Specific Basic Standards for
Osteopathic Fellowship Training in
Cardiology**

**American Osteopathic Association
and
American College of Osteopathic Internists**

BOT Rev. 2/2011

These specific basic standards are part of the *Common Basic Standards for Fellowship Training in Internal Medicine Subspecialties*, which govern and define training in the all medical subspecialties. These requirements are in addition to all requirements in the *Common Basic Standards*.

IV INSTITUTIONAL REQUIREMENTS

- 4.1 The base institution or an affiliate must have facilities to perform cardiac catheterization.
- 4.2 The base institution or an affiliate must have a cardiac surgical program.
- 4.3 The base institution or an affiliate must have intensive care facilities, including postoperative care for cardiac surgical procedures.
- 4.4 The base institution or an affiliate must have facilities for assessment of pulmonary function and aerobic capacity.
- 4.5 The base institution or an affiliate must have facilities for nuclear cardiology, including ventricular function assessment, myocardial perfusion imaging and studies for myocardial viability.
- 4.6 The base institution or an affiliate must have facilities for cardiac diagnostic tests including, at minimum:
 - a Electrocardiography;
 - b Exercise and pharmacologic stress testing;
 - c Echocardiographic and Doppler echocardiographic studies;
 - d Peripheral vascular noninvasive studies to include ultrasound and duplex imaging
 - e Ambulatory ECG monitoring
- 4.7 The base institution or an affiliate must have facilities for management of patients with arrhythmias including, at minimum:
 - a Electrophysiologic testing;
 - b Arrhythmia ablation;
 - c Signal averaged ECG;
 - d T wave variability testing;
 - e Tilt table testing;
 - f Implantation of permanent pacemakers;
 - g Pacemaker outpatient evaluation and reprogramming;
 - h Insertion of automatic implantable defibrillator;
 - i Insertion of Biventricular pacemaker.
- 4.8 The base institution or an affiliate must have facilities for diagnosis and follow-up care of adult patients with congenital heart disease.
- 4.9 The base institution or an affiliate must have radiology facilities and services that can provide procedures including, at minimum: CT angiography and cardiac MRI imaging.
- 4.10 The base institution or an affiliate must provide ambulatory clinic facilities where fellows follow an independent panel of patients on a continuity basis.

V PROGRAM REQUIREMENTS AND CONTENT

A Program Duration

- 5.1 The fellowship training program must be a full-time training program of a minimum of 36 months in duration.
- 5.2 A minimum of 24 months must include supervised management of patients (clinical rotations).

B. Medical Knowledge

- 5.3 Clinical teaching conferences must be conducted at least once weekly.
- 5.4 The basic science core curriculum must contain, at minimum, the following basic medical sciences of cardiovascular medicine:
 - a. Physiology;
 - b. Anatomy;
 - c. Histology;
 - d. Pharmacology;
 - e. Epidemiology.
- 5.5 There must be at least weekly cardiac catheterization conferences.
- 5.6 There must be at least monthly mortality and morbidity review.
- 5.7 Each fellow must participate in a cardiology board review, either in the form of an ongoing program, or by the program sponsoring the fellow's attendance at an internal medicine board review course.
- 5.8 The fellow must have learning activities in preventive cardiology.
- 5.9 The fellow must have learning activities in risk factor reduction.
- 5.10 The fellow must have learning activities in management of lipid disorders.
- 5.11 The fellow must have learning activities in cardiac rehabilitation.
- 5.12 The fellow must have learning activities in the American College of Cardiology's Revised Recommendations for Adult Cardiovascular Medicine Core Cardiology Training II 2008 (COCATS 2) so the fellow understands the credentialing requirements for cardiovascular procedures.

C. Patient Care

- 5.13 The fellow must have training and experience in hemodynamic monitoring.
- 5.14 The fellow must have training and experience in postoperative patient care.
- 5.15 The fellow must have training and experience in acute care of myocardial infarction.
- 5.16 The fellow must have training and experience in acute care of congestive heart failure.
- 5.17 The fellow must have training and experience in acute care of postoperative coronary artery bypass grafting.
- 5.18 The fellow must have training and experience in acute care of cardiac transplant patients.
- 5.19 The fellow must have training and experience in right and left heart catheterization

- 5.20 The fellow must have training and experience in management of exercise protocols, treadmill operation, computer trouble shooting, and the management of pharmacologic agents used in exercise testing.
- 5.21 The fellow must have training and experience in valvular heart disease, endocarditis, prosthetic valve evaluation, myocardial ischemia, primary and secondary disease of the heart and pericardium, and diseases of the great vessels during their echocardiographic experience.
- 5.22 The fellow must have training and experience in computer interpretation software to analyze and interpret nuclear cardiology data.
- 5.23 The fellow must demonstrate correlation of nuclear cardiology interpretations with subsequent anatomical findings at time of cardiac catheterization, CT angiography, or other modality for demonstration of coronary anatomy.

D. Ambulatory Clinic

- 5.24 The ambulatory experience must take place a minimum of one-half day a week, 36 weeks per year.

E. Rotational Curriculum

- 5.25 The fellow must complete 9 months of hospital-based general cardiology experience.
- 5.26 The fellow must complete 3 months of the hospital-based general cardiology experience in the ICU/CCU.
- 5.27 The fellow must complete 4 months of cardiac catheterization experience.
- 5.28 The fellow must complete 3 months of echocardiographic experience.
- 5.29 The fellow must complete 4 months of nuclear medicine experience.
- 5.30 The fellow must complete 2 months of electrophysiology experience.
- 5.31 The fellow must complete 1 month of vascular medicine experience.

F. Procedural Training Requirements

- 5.32 The fellow must interpret 3500 electrocardiographic procedures during the fellowship.
- 5.33 The fellow must interpret 150 ambulatory ECG monitor recordings during the fellowship.
- 5.34 The fellow must interpret 200 exercise tests during the fellowship.
- 5.35 The fellow must interpret 100 pharmacologic (dipyridamole, adenosine, and dobutamine) tests during the fellowship. This number is part of the 200 total exercise tests.
- 5.36 The fellow must participate in 100 diagnostic cardiac catheterizations during the fellowship.
- 5.37 The fellow must participate in the interpretation 150 complete (M-mode, 2D, and Doppler) echocardiographic examinations during the fellowship.
- 5.38 The fellow must perform 75 complete (M-mode, 2D, and Doppler) echocardiographic examinations during the fellowship.
- 5.39 The fellow must perform 25 transesophageal echocardiographic intubations during the fellowship.
- 5.40 The fellow must participate in the interpretation of 100 complete (myocardial perfusion, function, and viability) cardiac nuclear imaging studies during the fellowship.
- 5.41 The fellow must perform the insertion of 10 temporary pacemakers during the fellowship.

- 5.42 The fellow must perform 10 cardioversions during the fellowship.
- 5.43 The fellow must function as the primary programming operator who interrogates, interprets, prescribes, and reprograms devices in at least 100 patients during the fellowship.
- 5.44 The fellow must participate in 50 permanent pacemaker insertions during the fellowship.
- 5.45 The fellow must participate in the interpretation of 25 cardiac magnetic resonance studies during the fellowship.
- 5.46 The fellow must participate in the interpretation of 50 cardiac CT studies during the fellowship.
- 5.47 The fellow must insert 10 intra-aortic balloon assist devices with subsequent clinical management and removal of the device.

VI. PROGRAM DIRECTOR AND FACULTY

- 6.1 The program director must review and approve the fellows' procedure logs every 6 months.

VII. FELLOW REQUIREMENTS

- 7.1 The fellow must maintain procedure logs for all procedures.