A formal process of voluntary certification of cardiologists was introduced by the American Board of Internal Medicine (ABIM) in 1941. Thirty-five years later, the ABIM developed guidelines for the training of cardiologists in the recognition that individuals could be held to the standard implied by certification only if their training in cardiovascular disease was of high quality (1). These guidelines promulgated by the ABIM became the basis for an explicit mechanism whereby cardiovascular disease training programs that comply with published standards may now receive accreditation by the Residency Review Committee for Internal Medicine (RRC-IM) (2). Beginning in 1989 only training accredited by the RRC-IM will be acceptable to the Board.

Assessment of candidates for certification by the Subspecialty Board. The American Board of Internal Medicine and its Subspecialty Board on Cardiovascular Disease believe that more must be done to ensure that the public, through the certification process, has the ability to identify cardiologists who have attained excellence as a result of their subspecialty training in an accredited program. Henceforth, the Subspecialty Board on Cardiovascular Disease has limited its assessment of candidates who have satisfactorily completed the requisite period of training and who are deemed eligible for certification to an evaluation of knowledge and judgment in the context of a written examination. Other components of clinical competence have been deemed essential but are not amenable to assessment by this means. These components include refined history taking, expert and focused physical examinations, humanistic qualities (including the application of ethical considerations to the care of the chronically ill patient), abilities of a consultant to communicate effectively with and educate patients and colleagues, demonstration of professional attitudes and behavior, provision of high quality medical care (including choice of appropriate tests), proficiency in selected procedures and continuing commitment to scholarship. Each of these component skills can be assessed only by direct observation and appropriate documentation. Such assessment and documentation are required not only for a fully developed certification process but also to provide a basis for recommendations by the program director on behalf of former trainees seeking hospital privileges.

Many have used ABIM certification as a basis for conferring clinical privileges to perform the procedures of the subspecialty. In the absence of a formal and systematic assessment process the certificate currently issued by the ABIM does not guarantee that evaluation, documentation and substantiation of these components of clinical competence have been carried out.

A major policy change recently approved by the ABIM Board of Governors is to increase the training requirement for cardiovascular disease to 3 years. Data from candidates applying for the 1985 cardiovascular examination show that the majority of cardiology programs already are training fellows for 3 years. This new requirement becomes effective for the admission of first-takers to the 1993 examination. The judgment to increase training was based on the number and...
complexity of clinical procedures that must be mastered to perform them independently.

In an effort to broaden the foundation on which the certification decisions of the ABIM are based, program directors in cardiovascular disease are now being asked to verify that their trainees satisfactorily demonstrate all of the component skills mentioned and that they have done so during each of the required years of training. A candidate for certification judged at the completion of required training to be unsatisfactory with respect to overall clinical competence or any component skill, including moral and ethical behavior in the clinical setting, will be obliged to take an additional year or more of acceptable training to correct the deficiencies before requesting admission to examination. Furthermore, the ABIM requires that a trainee who changes programs, particularly after a poor initial performance, inform the new program director of any previous unsatisfactory ratings so that remedial efforts can be directed toward elimination of all deficiencies.

Humanistic qualities. Two important elements in this augmented evaluation process are the stipulation of humanistic qualities and certain essential procedural skills. To provide excellent patient care, physicians must have the welfare of their patients as their primary professional concern. Although certified internists have demonstrated integrity, respect, compassion and sensitivity to the patient's perception of illness as well as acceptance of professional responsibility and appropriate attitudes and behavior toward patients and colleagues, cardiologists bear added responsibility to manifest these qualities. The emotional impact of managing the care and treatment of patients with chronic or life-threatening disease demands special sensitivity toward their needs and those of their families and friends. Whether to undertake expensive and uncertain therapy requires knowledge and effectiveness in discussing the process of informed consent, clarity in enunciating the ethical issues involved and thorough understanding of social support and palliative measures.

Cardiologists should demonstrate an ability to balance the responsibility for providing a realistic appraisal of the clinical condition with the need for offering hope, thereby allowing patients to cope optimally with their diseases. As specialists, they must acquire sensitivity in dealing with the dying patient and be available and informative to the patient's family and friends.

Procedural skills. The ABIM has defined essential procedural skills as the learned manual skills necessary to perform diagnostic and therapeutic procedures within the specialty. Mastery of these skills includes technical proficiency as well as an understanding of their indications, contraindications, complications and results. The need to substantiate that these skills have been acquired will become effective for those applying to the 1989 examination in cardiovascular disease and thereafter. At the completion of training, candidates for certification in cardiovascular disease must present evidence of having attained satisfactory skills in:

- Advanced cardiac life support (ACLS), including cardioversion
- Electrocardiography, including ambulatory electrocardiographic monitoring and exercise testing
- Echocardiography
- Insertion of arterial lines
- Right heart catheterization, including insertion of temporary pacemakers

Additional procedural skills required of a cardiologist will be determined by type of practice, personal preference, availability of other skilled professionals at one's practice site and local delineation of privileges. For these reasons the Board recognizes that fellowship training may include experience with procedures such as pericardiocentesis, left heart catheterization and coronary angiography, percutaneous transluminal coronary angioplasty, invasive electrophysiological procedures, insertion of permanent pacemakers and myocardial biopsy. Familiarity with the indications, contraindications, complications and interpretation of the results of these additional procedures is essential for all who seek certification, even though proficiency in performing them is not.

The ABIM does not seek to dictate the number of times a procedure must be done to assure competency. The manual dexterity and competence of trainees vary, and procedures should be applied for the patient's benefit and not to fulfill some arbitrary quota. Each trainee is advised to maintain a formal log until proficiency is obtained, listing those procedures performed—including indications, basic findings, complications and, when applicable, pathology reports. This log should be reviewed by the program director and should become a permanent part of the trainee's record to document training in and achievement of satisfactory technical skills. The methods employed by a given program for supervising training and for observing, evaluating and documenting procedural skills are left to the discretion of the program director.

Guidelines for program directors and trainees. To assist programs in the evaluation of clinical competence, the ABIM has developed guidelines for cardiovascular disease program directors and trainees (3,4). Information gathered through the ABIM's hospital visit program indicates that many cardiovascular disease training programs already make an explicit effort to evaluate and document the essential clinical skills.

The processes addressed in this communication bring the ABIM, the training program and the candidate for certification into a tripartite relation whose shared goal is to assure that comprehensive and thorough medical care is based on a high standard of demonstrated clinical competence. The value of certification as a tangible expression of the attain-
ment of a superior level of ability will be enhanced by this broadening of the foundation upon which certification tests.

References


