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ACC INTERVENTIONAL SCIENTIFIC COUNCIL: NEWS AND VIEWS

Recertification in Interventional Cardiology

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The Interventional Scientific Council was established in the summer of 2007 in an effort to coordinate all activities regarding interventional cardiology within the American College of Cardiology (ACC). In the fall of 2007, the formation of the Interventional Scientific Section followed as those ACC members who identify themselves as interventional cardiologists wanted to become involved with the activities regarding this subspecialty. The general mission and current goals of the Section and its governing body, the Council, can be found at www.acc.org. This News and Views section of *JACC: Cardiovascular Interventions* is meant to introduce interesting and important subjects from the Interventional Scientific Council. We decided to cover the subject of recertification in interventional cardiology as the first subject for this column.

Interventional cardiology board certification in the U.S. was first established in 1999 as an "Added Qualification" to the cardiovascular disease certification by the American Board of Internal Medicine (www.abim.org). As expected, the initial certification process allowed for practice pathways outside formal Accreditation Council for Graduate Medical Education (ACGME)-accredited training programs that were initiated almost simultaneously as the board certification. Accordingly, a very large number of interventional cardiologists took the examination during the initial years. This number decreased progressively, and after 2003 when the practice-pathway qualification for initial certification was eliminated, the number of examinees dropped abruptly, and since then essentially mirrors the number of graduates of the ACGME-accredited interventional cardiology programs (Fig. 1). As a comparison, initial certification in cardiovascular disease in the period 2003 to 2007 has been sought by 710 to 783 physicians per year and had a passing rate of 83% to 88%. During the same period, the yearly number of physicians who sought recertification fluctuated from 262 to 879 and had a similar passing rate 83% to 88% (www.abim.org).

Since all board certification diplomas for any specialty or subspecialty are issued for a 10-year limited period, it is mathematically certain that a fairly large number of interventional cardiologists will be eligible for recertification starting in 2009. Recertification in interventional cardiology has always been possible for those interested, and only a limited number of physicians did so during the period 2005 to 2007, likely in combination with their cardiovascular disease recertification cycle: 14, 20, and 68 with passing rates of 97% to 100% (www.abim.org).

Philosophy of Recertification

Before outlining the actual steps to recertification, it is actually helpful to the reader to understand the philosophy that governs that recertification process. Continuing medical education and clinical competence are in the center of the board's attention. Concepts that have been taken into account include: 1) several organizations have periodically published suggestions-guidelines regarding the importance of procedural volume status; 2) the technical competence, per se, should somehow be tested and simulators provide an apparently feasible option; and 3) presence of individual, group practice, or medical center-based quality assurance review process appears to be beneficial with respect to patient outcomes.

Steps to Recertification

There are many ways to present this subject, but we chose the way it needs to be followed in real time. First of all, one needs to identify the year that the current interventional certificate expires. The recertification process should begin at least 1 year in advance of the expiration of one's current interventional certificate. At that time, one would enroll in the Maintenance of Certification (MOC) program through the board's website under "Maintenance

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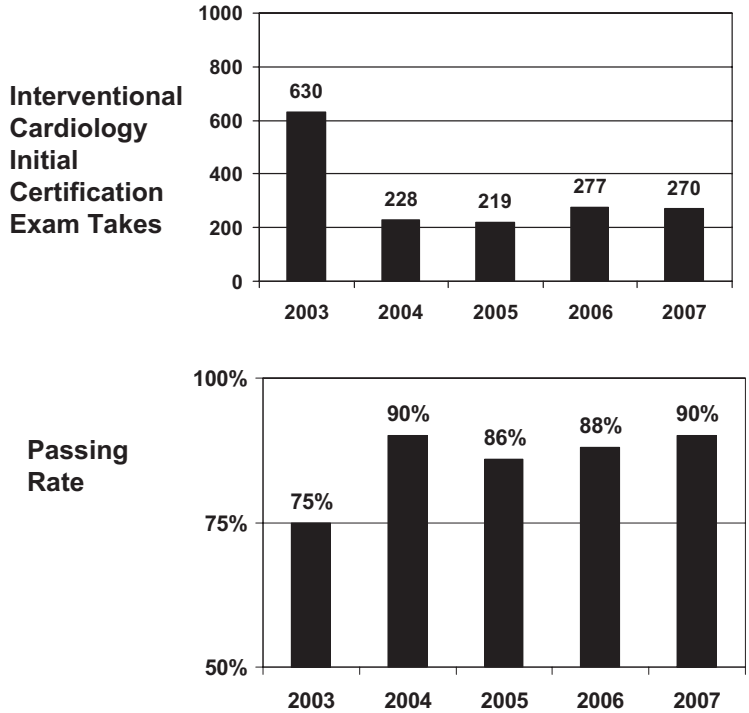

Figure 1. Interventional Cardiology Certification Examination Data (www.abim.org)

of Certification Program." Unlike initial certification, the board's focus is mostly in the home study and practice improvement modules. Simply speaking, for someone to qualify to schedule and sit for the secure final exam, a total of 100 points need to be accumulated from all the modules. We will review how this number can be achieved hereafter. However, it is important to point out that 100 points qualify the candidate for as many board examinations, not just 1 (i.e., after completion of 100 points from any valid source, one can schedule a recertification exam not only in interventional cardiology, but also in cardiovascular disease, and even internal medicine).

Home Study Modules. The first type of home study modules represent sets of tests that are reminiscent of the secure examination. This time, however, the study modules are open-book, take-home type and without a restraining time limitation. Typically, a module with 60 questions offers 20 points (currently 1 available in interventional cardiology) and a module with 25 questions offers 10 points (currently 2 available). The main limitation of the home study modules is that even if one takes all available modules, the sum is only 40. This can be addressed by adding more modules in the future, but for the time being, one can take a cardiovascular disease module for another 20 points (several available). Completion of study modules also provides continuing medical education credits.

Simulation. Medical simulation is the second type of training relevant to Interventional cardiology. Although not a mandatory step at this point, successful completion of a simulation session provides 20 points. Typically, this takes 3 h of training and self-testing at the simulator. According to the board's pledges, expansion of this program should be expected with simulation most likely becoming a mandatory step in the MOC process or even included in the secure exam in the future. Of course many technical details regarding simulation sessions and availability of simulators need to be addressed. In 2008, simulation sessions were scheduled at the Society for Cardiovascular Angiography and Interventions–ACC Innovation and Intervention conference and will also be available at the Transcatheter Cardiovascular Therapeutics board review conference as of now; additional simulation sessions in other conferences will be announced as arrangements are made. There are also simulation sessions in a few medical centers that operate year round; scheduling needs to be secured ahead of time.

Practice Improvement Modules (PIMs). The PIMs may provide 20 to 40 points each, and completion of 1 such module (20 points) is an absolute requirement. This means that if one completes 100 points based on the home study modules and simulation, this will not suffice without completion of a PIM. There are several types of PIMs though the only interventional cardiology-oriented PIM at this point is the door-to-balloon time continuous quality improvement

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(CQI) module offered by the ACC. The American College of Physicians offers a CQI on general Cardiovascular Risk, and the American Board of Internal Medicine also has a preventive cardiology practice performance module, and those are valid options too.

The main goal of a PIM is to require the physicians direct the collection of patient care-related data using widely accepted methods, evaluate the quality of outcomes against established guidelines, identify weaknesses, select targets for improvements, implement changes, and document that improved quality was assured after the changes. Undoubtedly this is quite a noble goal and a meritorious initiative, but it tends to confuse candidates since it is entirely new and rather unrelated to the classic "home study modules" and classic teaching of medicine. It certainly reflects the current trends of the wider medical community and the practice of medicine within the discipline of interventional cardiology rather than strictly the knowledge of the individual practitioner.

The currently limited modules, however, accentuate the anxiety-confusion of interventional specialists since they do not relate to their day-to-day practice. More PIMs are being constructed, and there is even a way to submit a completely individualized PIM for review. Instructions can be found under "Self-directed PIM"; for a program to be viewed favorably it needs to include all the quality assurance steps described above. It is possible that an approved practice-wide self-directed PIM may count for recertification points for all the members of the team (not just for the leader), once adequate individual contribution is documented. This possibility would definitely lead to hospital-based or catheterization laboratory-based initiatives, which in many ways would be even more meritorious than the individual physician programs. Most interventional practices hold regular joint discussions on complications and quality improvements. The quest will be how to properly structure and expand them so that they can be submitted, reviewed, and counted for recertification credits.

Clinically inactive physicians (e.g., purely administrative duties) without access to patients or patient data may complete a module on essentials of quality improvement; requirements and details for this pathway are provided under "Options for clinically inactive physicians" section of the Board website.

Interventional Case Volume. This is a new requirement and applies only to interventional cardiology (no other specialty or subspecialty of internal medicine). Stemming from several guideline publications regarding minimum individual volume per year, the board currently mandates certification by the Director of Interventional Cardiology and Cardiac Catheterization Laboratories to assure a minimum or 150 interventional cases (as primary operator, co-operator, or supervisor) in the past 2 years, as well as participation in an interventional quality improvement program. There is a documentation period limitation: case accumulation period should not start before July 2007 and should end by October 2009 for those eligible to recertify in 2009. Those practicing in more than 1 laboratory will need to provide letters from several laboratories in order for this minimum number to be fulfilled.

Attention should be paid to an option for those not fulfilling the minimum case requirement. A log (form provided) of 25 consecutive cases should be filled including patient characteristics and outcome. After authentication by the Director of Interventional Cardiology and Cardiac Catheterization Laboratories, this form should be submitted for review by the board.

Dynamic Recertification Issues

The reader must have already identified several new recertification steps, and the reality is that this process will continue to evolve and improve before the anticipated large wave of eligible interventional cardiologists recertify in the years 2009 and beyond. The ACC, the Society for Cardiovascular Angiography & Interventions, the Cardiovascular Research Foundation, and Mayo Clinic hold Interventional Board review courses, are in the process of initiating a constructive discussion among themselves and with the Board in order to provide more comprehensive resources and expand recertification study options in a rational and organized way.

For example, these may include more study modules, more review sessions for study modules, internet-based self-assessment programs, orientation sessions for the entire process and the important timelines, increased availability for simulation sessions, examples of PIMs, PIM-oriented training for hospital practice administrators, and others will certainly follow.

Indeed, several issues raised in the recertification process are broader than the individual doctor knowledge and dexterity. The PIMs, quality improvement and case volume requirements bring up the level of readiness of the entire interventional team, which is a hospital or practice-wide issue. Therefore, we anticipate that the Directors of Interventional Cardiology and Cardiac Catheterization Laboratories will soon uncover new challenges for them in effort to provide the required institutional support to physicians seeking recertification.

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