Focus on Residents

FAQs about the Core and Certifying Exams

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After several years of discussion, in 2007 the ABR began the arduous process of phasing out its initial qualifying "written" and “oral” diagnostic radiology examinations and implementing new computer-based, image-rich diagnostic radiology initial certification exams. Previously called the “Exam of the Future,” the new Core and Certifying Exams have become the “Exam of the Present.”

The first administration of the Core Exam—for residents who began their training in 2010—was offered in Chicago and Tucson on Sept. 30 - Oct. 1, 2013, and again on Oct. 2-3, 2013. The first week of October was chosen to avoid administration in close proximity to the June 2013 oral examination. Subsequent Core examinations will be given in June of each year.

The Certifying Exam, which replaces the current oral exam, is taken 15 months after completion of diagnostic radiology residency. The Core Exam must be passed before a candidate is eligible to take the Certifying Exam, which will also be administered in Chicago and Tucson. The first Certifying Exam will be offered in October 2015.

As can be expected, ABR candidates continue to have many questions about both exams. The ABR recently updated its FAQs about the Core and Certifying Exams:

FAQs about the Core Exam

What is the difference between the previous initial qualifying (“written”) examination and the new Core Examination?
The initial qualifying (“written”/clinical) examination could be taken first after two years of radiology residency training. It tested basic knowledge and comprehension of anatomy, pathophysiology, diagnostic radiology, and physics. It was not an image-rich examination. It was graded as pass/fail. The new Core Examination is offered after 36 months of residency, is image...
rich and computer based, and examines in 18 subspecialty and modality categories. The exam must be passed overall and in each category to receive a passing result. The Core Examination can be considered as a combination of the previous physics, clinical, and oral exams.

**What categories are included in the Core Examination?**
The 18 categories are: breast, cardiac, gastrointestinal, interventional, musculoskeletal, neuroradiology, nuclear medicine, pediatric, reproductive/endocrinology, thoracic, urinary, vascular, computed tomography, magnetic resonance, radiography/fluoroscopy, ultrasound, physics, and safety. In addition, the Radiolotope Safety Exam (RISE), one of the requirements for Authorized User (AU) eligibility status, is included within the Core Exam.

**Who writes the questions for the Core Examination?**
Item-writing committees in each category write items (questions and answer options) for the exam. The committees are composed of ABR-certified volunteers, all of whom must be participating in Maintenance of Certification (MOC). These volunteers are from academic and private practices across the U.S., including faculty in accredited residency programs and residency program directors. They receive special training in item writing before they begin their work.

**What else do item-writing committees do?**
After the writers compose items, they are vetted and edited by the entire category committee with the assistance of an ABR-trained exam developer and ABR content editors. During this process, questions and answer options are checked for ambiguity, word economy, inappropriately written answers, and consistency of style. Improvements are made as needed. Images are selected, and their quality is checked by the committee members. The committee then assembles the item into modules, which is a set of items conforming to the category blueprint and designated for a specific exam administration. At the annual Test Assembly meeting, attendees representing each category, including several ABR trustees, vet all items. Those deemed inappropriate for the exam, due to reasons such as content and relevance, are replaced by other items.

**Why doesn’t the ABR just write a new examination each time?**
The validity and reliability of exams are increased when some exam questions with good performance statistics are re-used, and when versions of the exam are “equated” to maintain a constant level for the passing standard. The ABR is committed to a fair examination process, which can be achieved only with valid and reliable instruments. In addition, item writing and developing modules that cover the domain/blueprint of each category is a time-consuming, lengthy, and expensive process.

**How can I know what to study in order to prepare for this examination?**
Several resources can be found on the ABR website at [www.theabr.org/core-and-cert-exam-overview](http://www.theabr.org/core-and-cert-exam-overview):

- a comprehensive study guide with sample questions
- a 110-item practice exam

Source: The Beam, Summer 2014 [www.theabr.org](http://www.theabr.org)
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• a sample of content for each organ-system-based Core Exam category
• links to Core Examination blueprints, giving a concise outline of content to be tested in each category and percentage weights for subtopics.

**What can I study for quality and safety?**
Since the range of content relevant to the topic of radiology quality and safety is broad, a separate study guide has been produced to serve as a syllabus of the quality and safety knowledge that residents eligible to take the Core Exam are expected to know. A link to the Core Quality and Safety Study Guide is available for download here.

**How is physics tested on this examination? Will it be similar to previous physics examinations?**
No identifiable physics module is included in this examination. Relevant physics questions are embedded in each category, and many are image based. However, physics is scored as a separate category and must be passed in order to pass the examination.

**How is the Core Examination scored?**
The Core Exam is criterion referenced, not norm referenced. This means that the pass/fail determination is made by assessing a candidate’s performance relative to a standard; it is not made by assessing a candidate’s performance relative to the peer group who took the exam. Theoretically, 100 percent of candidates could pass the exam if they all reached the passing standard.

The passing standard is determined by “Angoff committees,” a group of content experts and educators who, for each question on the exam, determine whether a resident just above the competency threshold would be expected to select the correct response. This standard psychometric process, known as Angoff standard setting, has been used by the ABR for many years for all of its “written” and computer-based examinations.

The Core Examination is scored in a two-step process, which is performed for each examinee:

**Step 1:** Each candidate must achieve an overall score above the Angoff standard on the exam as a whole.
- If yes, move to Step 2.
- If no, the candidate fails.

**Step 2:** Each candidate must achieve the conditioning threshold for all 18 categories.
- If yes, the candidate passes.
- If no in five or fewer categories, the candidate conditions.
- If no in more than five categories, the candidate fails.

**Why do residents have to pass all 18 categories?**
The Core Exam is the last comprehensive exam taken by candidates. Therefore, the ABR trustees believe that it is important for all candidates to have at least a minimum standard of knowledge in each category.
What happens if a resident fails a portion or the entire Core Examination? When can one retake the examination?
If a candidate fails the exam overall, or fails six or more of the categories, he/she must repeat the entire examination. If one to five categories are failed, the candidate will have “conditioned” the examination and needs to retake only the categories that he/she failed. Opportunities to retake either the “conditioned” parts or the entire examination are available twice a year.

How long does a candidate have to pass the Core Examination?
Candidates have six years from the end of their training to successfully complete the initial certification process (Core and Certifying exams). This is the “board eligible” period. After that, candidates must take an additional year of training in a department with ACGME or RCPSC (Canada) accreditation before re-registering and re-entering the certification process.

Certifying Exam FAQs

What is the Certifying Examination?
The Certifying Examination, which is given 15 months after completion of diagnostic residency training, is a computer-based, image-rich examination. The examination includes five modules. Three modules are in clinical practice areas and may be chosen by the examinee to fit his/her interests, experience, and training. The other two modules, Essentials of Diagnostic Radiology and Noninterpretive Skills, will be taken by all examinees. Sixty percent of the Certifying Examination is thus a profiled examination that reflects the individual’s practice. The remaining 40 percent of the examination tests areas that every radiologist should know.

How long do candidates have to pass the examination?
Candidates have six years from the end of their training to successfully complete the initial certification process (Core and Certifying exams) and describe themselves as “board eligible.” After that, candidates must take an additional year of training in a department with ACGME or RCPSC (Canada) accreditation before re-registering and re-entering the certification process.

So much learning occurs in the fourth year of residency in preparation for the oral board examination. Why change something that has been successful?
Many diplomates still remember their board experience, and some state, “I never knew more.” However, the “binge-and-purge” mentality is not a good strategy. The new training and certification processes should encourage a greater depth of knowledge in the areas of an individual’s interest and practice, which is intended to translate to a higher level of patient care. Finally, it should be noted that the new testing paradigm involves no change in the total duration of training. The resident still has the same amount of total time to reach the “never knew more” stage, and the knowledge he/she gains can be more relevant to his/her practice goals.
**How does an individual select content for the Certifying Examination?**
A candidate selects three clinical practice modules in which to be examined, based on his/her training experience, interest, and practice pattern. These areas include the following: breast, cardiac, gastrointestinal, musculoskeletal, neuroradiology, nuclear, pediatric, thoracic, ultrasound, genitourinary, vascular/interventional, and general radiology. The candidate should expect questions requiring a greater depth and breadth of knowledge if he/she selects two or three modules in a single category.

**How will the Certifying Examination be scored?**
The Certifying Exam will be scored pass/fail. In order to pass, the candidate must achieve a passing result on each of three parts: essentials of diagnostic radiology, noninterpretive skills, and the clinical area modules (all three scored together). If the result on any one of these three parts is “fail,” the entire exam must be retaken.

**What does “noninterpretive skills” mean?**
This refers to general topics of importance to the practice of radiology, including, but not limited to, radiation safety, recognition and management of contrast reactions, error prevention, communication skills, professionalism, and quality principles. A syllabus, *Noninterpretive Skills Domain Specification and Resource Guide*, is available on the ABR website ([click here](#)). All noninterpretive skills questions will come from information contained in this syllabus.

**Is radiology unique in delaying board examinations until the candidate is in practice?**
Many boards delay the final certification examination until after the individual is in practice. In fact, for many years the ABR was one of the few boards that offered the final certifying exam before the end of residency training. In addition, many boards no longer have oral examinations. So the new examination paradigm for diagnostic radiology makes our specialty more similar to many other specialties in the way in which we administer our Certifying Examination.

**Does the ABR Diagnostic Radiology Certificate still indicate whether an individual is AU-eligible?**
Yes. If the individual fulfills all requirements for an “authorized user,” including satisfactory documentation of the training and experience requirements and passing the RISE items in both the Core and the Certifying examinations as described above, the certificate will indicate “AU-eligible.”

**What happens to the required months of rotation for nuclear medicine and breast imaging? How can you be sure that all residents have these rotations?**
These requirements are mandated by federal agencies/legislation and remain the same. The program director, chair, and faculty are responsible for compliance with these requirements and must attest to their completion.
General FAQs

What is the timeline for changes?
The first class to take the new examinations was the class entering radiology residency training (i.e., R1/PGY2 year) in July 2010. The first Core Examination was given during the first week of October 2013; subsequent examinations are given twice yearly at the ABR’s Chicago and Tucson Exam Centers. The first Certifying Examination is in fall 2015.

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<th>Timeline for Exams</th>
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<td>Clinical Year, PGY1</td>
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What happens if a candidate does not pass the oral exam by the final administration in November 2014?
Candidates who have not passed the oral examination by November 2014 will be required to take and pass both the Core and Certifying examinations to obtain board certification. Those who have conditioned the oral exam and have not passed by the final administration in November 2014 will be required to take one clinical module of the Certifying Examination in each failed category, plus the essentials and noninterpretive skills modules, to obtain board certification.

Why do I have to go to an official ABR Exam Center instead of taking the examination at a Pearson VUE Center?
Currently, the examinations cannot be administered at Pearson VUE centers because Pearson VUE software is unable to handle the modular exam content and case structure. In addition, Pearson VUE monitors are not calibrated, and the room lighting cannot be controlled. The ABR plans to have a distributed exam in the future and is currently working on a system to implement this.