Development of ABR Certification Requirements: Initial Certification

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ABR Trustee
Diagnostic Medical Physics
American Board of Radiology Mission

To certify that our diplomates demonstrate the requisite knowledge, skill, and understanding of their disciplines to the benefit of patients
Medical Physics Training

Increasing Standardization and new ABR requirements began in 2012 and were fully phased in 2014.
Major Components

Didactic Education

Clinical Education
Major Components

Didactic Education
2012: CAMPEP accredited educational program

Clinical Education
Major Components

Didactic Education
2012: CAMPEP accredited educational program

Clinical Education
2014: CAMPEP residency
Medical Physics as a Profession

Standardized training is a key component of a profession

- Physicians
- Lawyers
- Accountants
- Actuaries
- Architects
- Dentists
- Engineers
- Nurses
- Teachers
Current Requirements
Current Requirements

• Applicants for the Clinical Exam and Part 1 Exam must be enrolled in one of the following CAMPEP Accredited Programs:
  - Graduate Education Program
  - Certificate Program
  - Residency

The candidate must be in good standing and the enrollment must be attested to by the program director.
Current Requirements

Applicants for the Part 2 Exam must have completed a CAMPEP Accredited Residency

Applicants for the Oral Exam must have passed the Part 2 Exam
Medical Physics Training

Practice Years (MOC)

Certification

Clinical Training

Didactic Training

Retirement
Candidates from Previous Years

ABR usually allows candidates to finish under the requirements of their entry date

There are exceptions, but ABR usually gives 1-5 years notice
Candidates from Previous Years

Candidates from 2013 and earlier can still use the “clinical experience” pathway.

Candidates from 2011 and earlier do not require a CAMPEP education but must still have an appropriate medical physics education and “clinical experience”.
Nature of Exams

Exams are “criterion referenced.”
Everyone who meets the “standard” passes
In principle, everyone could pass or fail
This can be compared to “norm referenced” where the purpose of the test is to rank the participants
How Are Criteria Determined?

• Expert Analysis
• Practice Surveys
• Professional Guidelines
Criterion Referenced Passing Score
Set by Psychometric Analysis

Minimum Acceptable Competence

Increasing Competence

Not Ranked
Examples

- Pure Criterion Referenced
  - Board Certification
- Pure Norm Referenced
  - Scholastic Aptitude Test
- Mixed
  - Typical College Grades (A>B>C>D>F)
# Exam Length and Content

<table>
<thead>
<tr>
<th></th>
<th>MP Part 1 General &amp; Clinical</th>
<th>MP Part 1 Clinical ONLY</th>
<th>MP Part 2 All Disciplines</th>
<th>MP MOC All Disciplines</th>
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<tbody>
<tr>
<td>Number of Sections</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>First Session</td>
<td>237 Minutes</td>
<td>87 Minutes</td>
<td>237 Minutes</td>
<td>207 Minutes</td>
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<td>75 All Simple</td>
<td>80 Complex: 27 Simple: 53</td>
<td>125 All Simple</td>
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<td>Break</td>
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<td>Second Session</td>
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<td>Number of Questions</td>
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<tr>
<td>Conditioned</td>
<td>N</td>
<td>Y</td>
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<tr>
<td>Total Questions</td>
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<td>75</td>
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<td>4.5 hours</td>
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Part 1 and Part 2

• Several new question types are being added
  • “hotspot” questions
  • “fill in the blank” questions

• It is likely that the number of questions will increase but they will not do so until 2016 at the earliest
Oral Exam Categories & Content

The overall content of the orals will not change. The exam has a focus on clinical medical physics.
# New (As of 2015) Oral Categories

<table>
<thead>
<tr>
<th>DMP</th>
<th>NMP</th>
<th>TMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiography, mammography, fluoroscopy, and interventional imaging</td>
<td>Radiation protection</td>
<td>Radiation protection and patient safety</td>
</tr>
<tr>
<td>Computed tomography</td>
<td>PET and hybrids</td>
<td>Patient-related measurements</td>
</tr>
<tr>
<td>MRI and ultrasound</td>
<td>SPECT and hybrids, including gamma cameras</td>
<td>Image acquisition processing and display</td>
</tr>
<tr>
<td>Informatics, image display, and image fundamentals</td>
<td>Radiation measurements</td>
<td>Calibration, quality control, and quality assurance</td>
</tr>
<tr>
<td>Radiation, dosimetry, protection, and safety</td>
<td>Clinical procedures</td>
<td>Equipment</td>
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</tbody>
</table>
Time Limits and Board Eligibility
Concepts

• Replace “opportunities” with time limits

• Require additional education and training if candidate “times out”

• Make “board eligible” an official status
Part 1 and Clinical

• Approved after January 1, 2011
  • Must pass Part 1 & Clinical within 5 years of approval

• Approved prior to January 1, 2011
  • Must pass Part 1 & Clinical by December 31, 2016

• If you do not pass by the required date you must complete an additional year of training at an institution that has a CAMPEP accredited educational program before you can be approved to retake Part 1
Part 1 to Part 2 Approval

The ABR has a 10 year limit for the candidate who has passed Part 1 to apply and be approved for Part 2.
When one is approved for Part 2 or completes a CAMPEP residency one becomes board eligible.

This is an official ABR and ABMS status and the candidate may describe themselves as “board eligible.”

The ABR will report the candidate as board eligible.
Board Eligible status

• Approved after January 1, 2011
  • Must become certified within 5 years of approval

• Approved prior to January 1, 2011
  • Must become certified by December 31, 2016
  • If the candidate doesn’t pass by the required date an additional year of training at an institution that has a CAMPEP accredited residency program must be completed to achieve board eligible status

• The ABR will show the status as “Not Certified and Not Eligible for Certification”
- Part 1 Approval: 5 years
  - Pass
    - No
    - Yes: 10 year limit to get Part 2 approval

- Board Eligible: 6 years
  - Part 2
    - Oral
      - Pass
        - No
        - Yes: Certified
          - 1 Year CAMPEP Clinical Training

- MOC
  - Certified
    - 1 Year CAMPEP Education
Additional Certificates

A diplomate may apply for an additional certificate after 1 year of clinical training meeting under the supervision of an ABR physicist who is certified in that discipline. One then becomes “Board Eligible” in the additional discipline.

- Part 2
- Oral
- The individual must become certified in the additional field within 6 years, or a year of formal clinical training at an institution that has a CAMPEP residency is required.