

Development of ABR Certification Requirements: Initial Certification

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Diagnostic Medical Physics



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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

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2012: CAMPEP accredited
educational program

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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

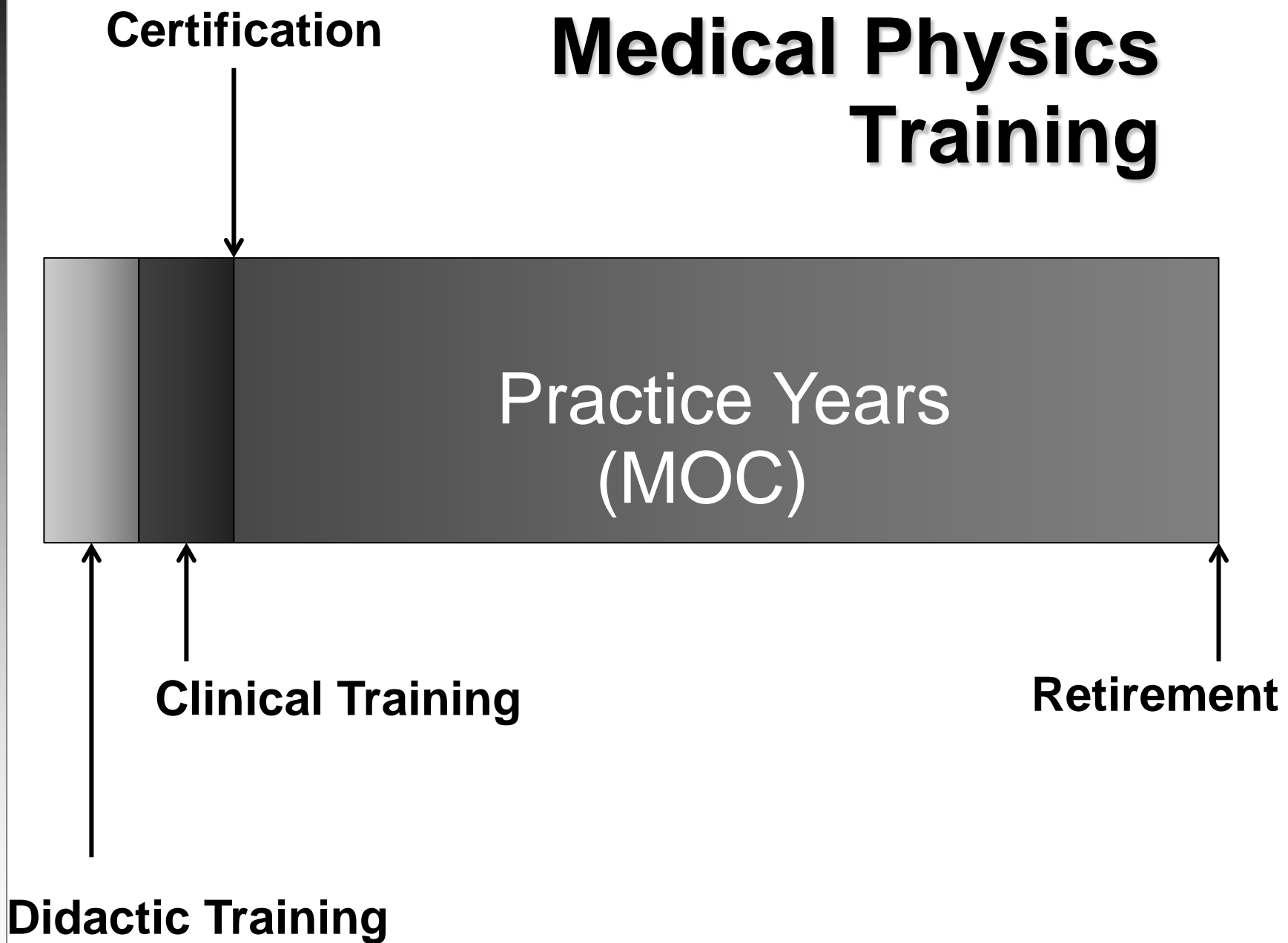
**Part 2 Exams are given at Pearson Vue
Centers throughout the USA and Canada
Oral Exams are given in Louisville**

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



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**

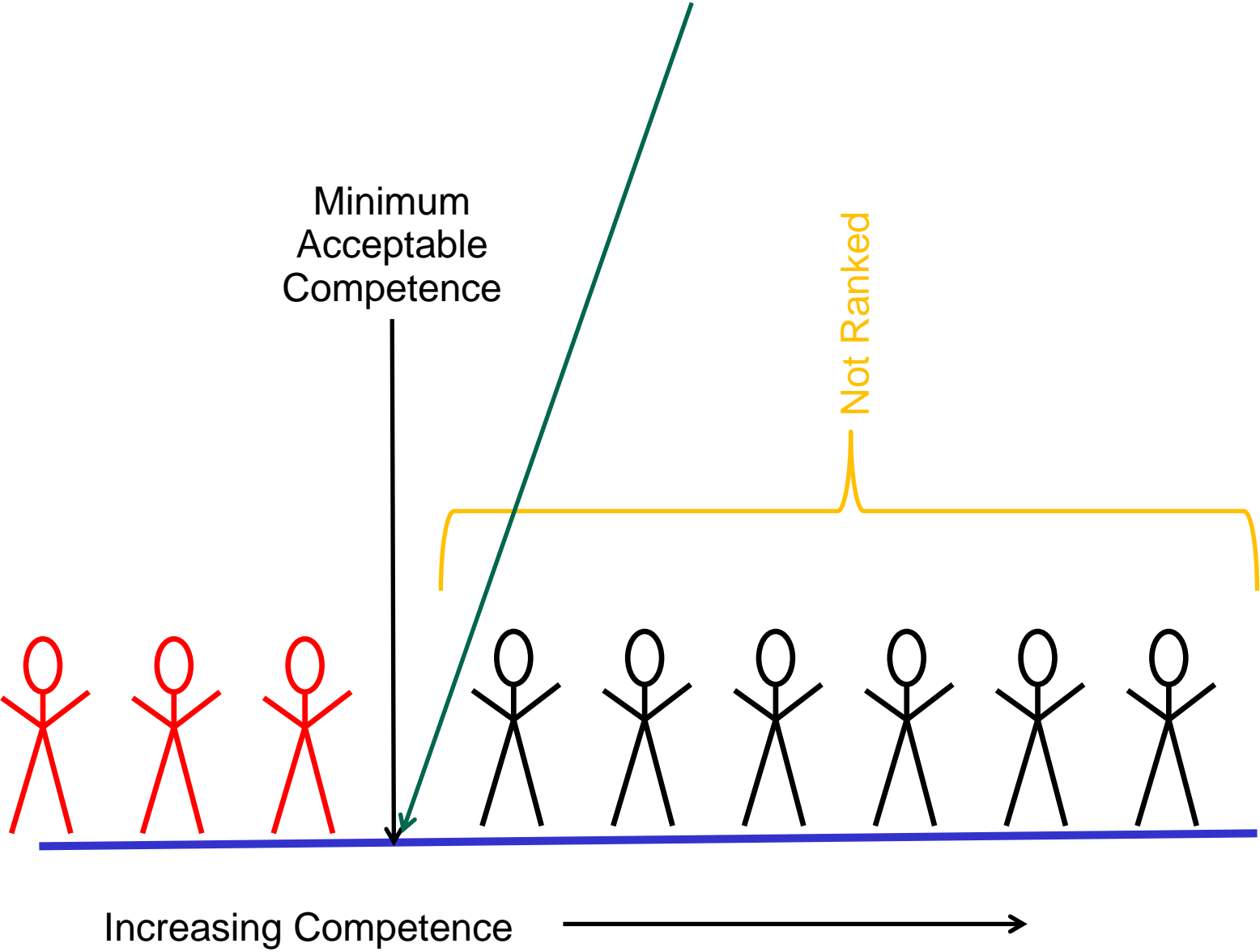
In principle, everyone could pass or fail

**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



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

	<u>MP Part 1</u> General & Clinical	<u>MP Part 1</u> Clinical ONLY	<u>MP Part 2</u> All Disciplines	<u>MP MOC</u> All Disciplines
Number of Sections	2	1	1	1
First Session	237 Minutes	87 Minutes	237 Minutes	207 Minutes
Number of Questions	<u>80</u> Complex: 27 Simple: 53	<u>75</u> All Simple	<u>80</u> Complex: 27 Simple: 53	<u>125</u> All Simple
Break	Y, 30 Minutes	N	N	N
Second Session	90 Minutes	N/A	N/A	N/A
Number of Questions	<u>75</u> All Simple	0	0	0
Conditioned	N	Y	N	N
Total Questions	155	75	80	125
Approximate Total Exam Time	6.5 hours	2.0 Hours	4.5 hours	4.0 hours

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**

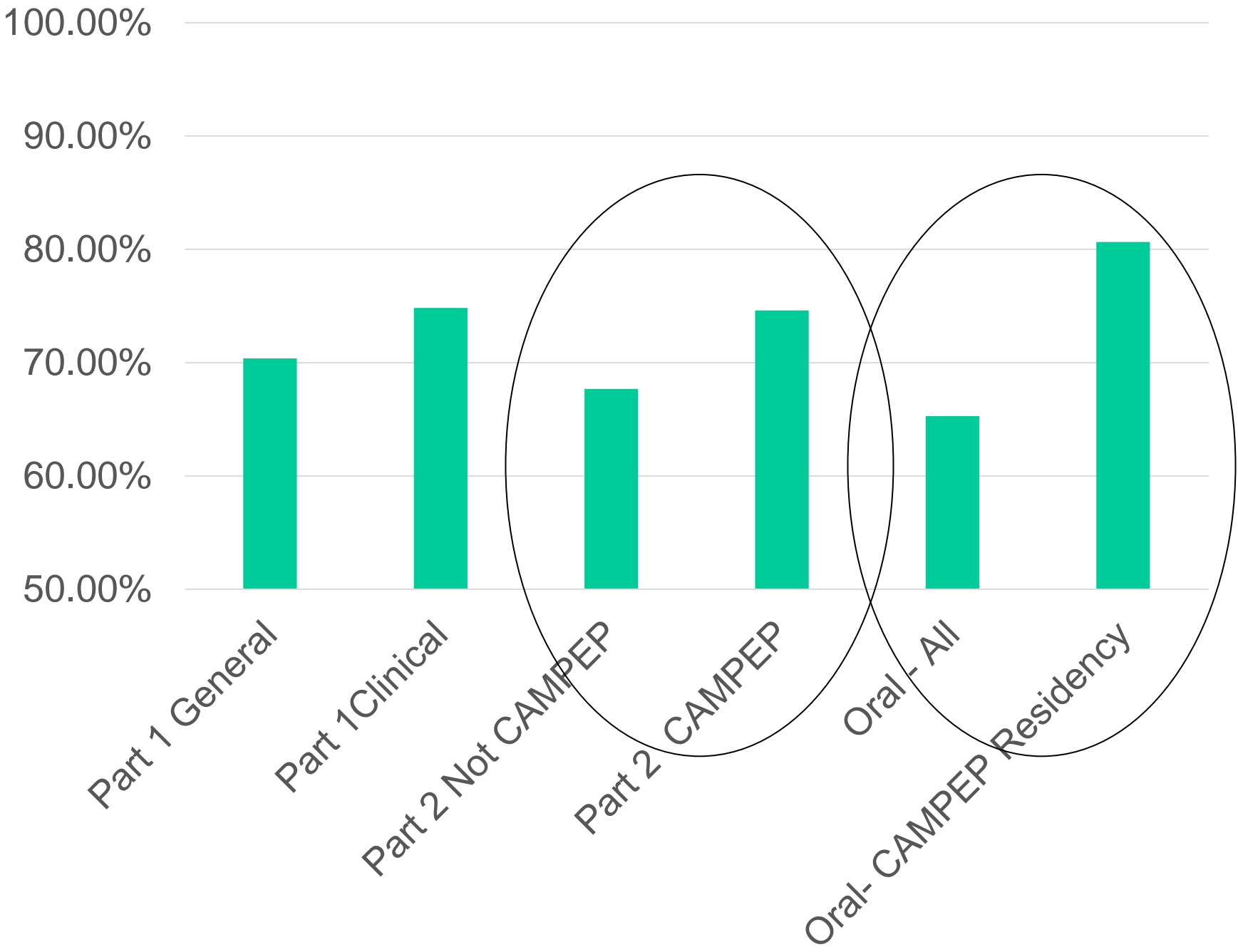
Oral Exam Categories & Content

The overall content of the orals will not change. The exam has a focus on clinical medical physics

New (As of 2015) Oral Categories

DMP	NMP	TMP
Radiography, mammography, fluoroscopy, and interventional imaging	Radiation protection	Radiation protection and patient safety
Computed tomography	PET and hybrids	Patient-related measurements
MRI and ultrasound	SPECT and hybrids, including gamma cameras	Image acquisition processing and display
Informatics, image display, and image fundamentals	Radiation measurements	Calibration, quality control, and quality assurance
Radiation, dosimetry, protection, and safety	Clinical procedures	Equipment

Pass Rates – First Time Takers



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

Board Eligible

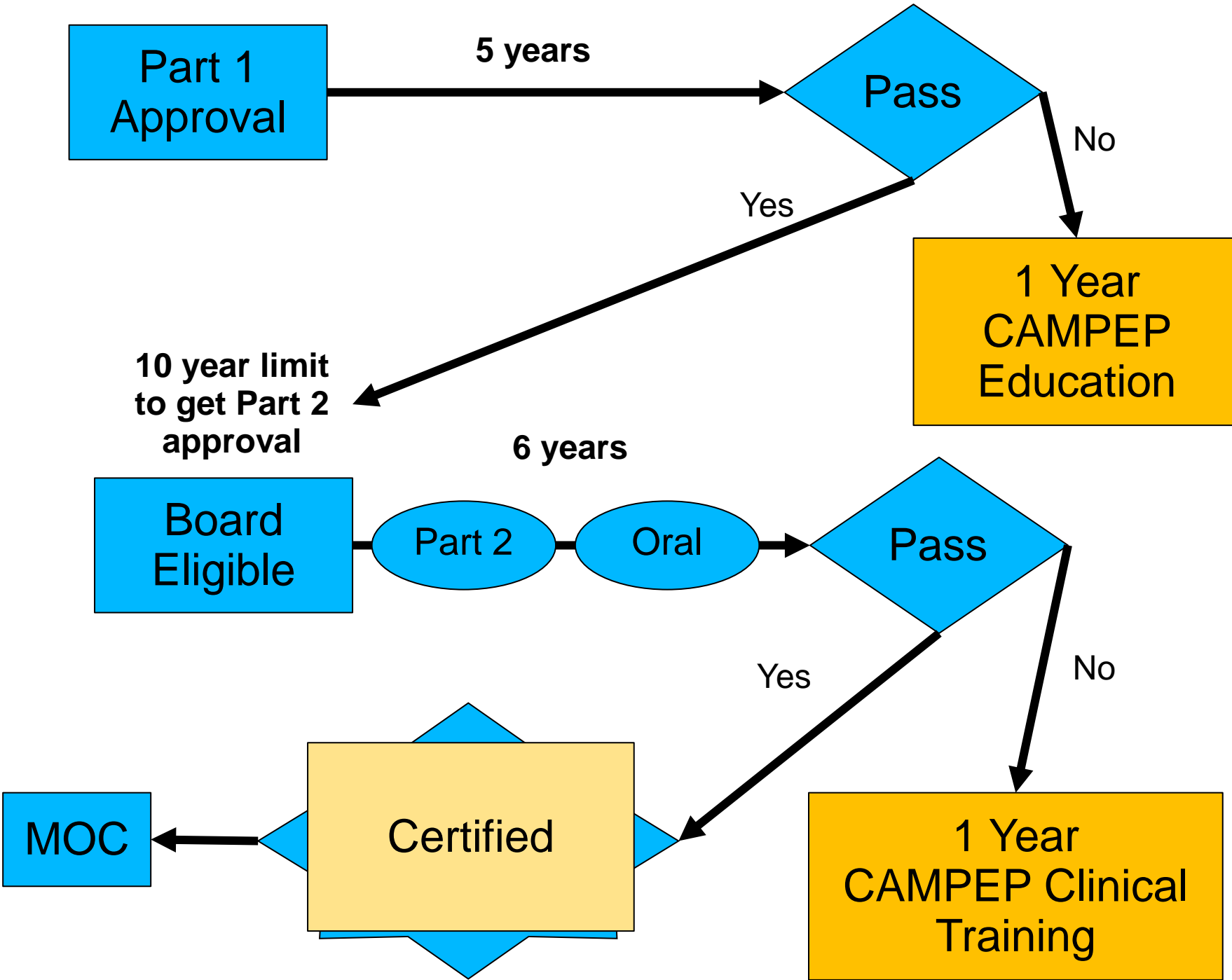
When one is approved for Part 2 or completes a CAMPEP residency one becomes board eligible

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”**



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**