

American Board of Radiology
- Current Issues and Considerations
for Radiological Physicists

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ACMP Meeting 2011

Department of Radiology and Radiation Science
Medical University of South Carolina
Charleston, SC



Physics Trustees and Associate Executive Director

- G. Donald Frey
 - MNP Portfolio
- Geoffrey Ibbott
 - RO portfolio
- Richard Morin
 - DX Portfolio
- Stephen Thomas
 - AED for Physics

24 Trustees Total

Topics

- 2012/2014 Requirements
- Maintenance of Certification
 - Cognitive Exam for MOC (Physicists)

2012/2014 Requirements

Current Emphasis

-Minimum Education

- 3 advanced undergraduate or graduate physics courses
- 3 graduate medical physics courses
- 2 undergraduate or graduate biology courses

Clinical Experience in Medical Physics

- Requirement has been dropped for Part 1
- Three years of clinical experience is still required for Part 2
 - Or completion of a two year CAMPEP residency

2012 Requirements

- As of 2012 either a CAMPEP degree or a CAMPEP residency is required to sit for the ABR Exam
 - **Last year to apply under current system was 2010**
 - **Beginning with the 2011 cycle either**
 - A CAMPEP Accredited Degree
 - OR A CAMPEP Accredited Residency

[2014 Requirements]

- As of 2014 a CAMPEP residency is required to sit for the ABR Exam

[Why the Change?]

[Mission]

The mission of The American Board of Radiology is to serve patients, the public, and the medical profession by certifying that its diplomates have **acquired, demonstrated, and maintained a requisite standard of knowledge, skill and understanding essential to the practice** of diagnostic radiology, radiation oncology and radiologic physics

[Six Competencies]

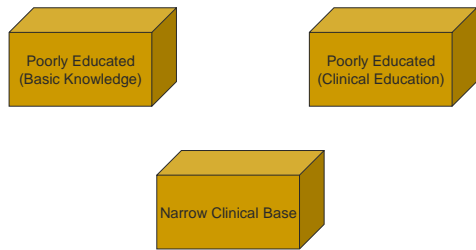
1. Professional & Medical Knowledge
2. Patient Care
3. Interpersonal & Communication Skills
4. Professionalism
5. Practice-based Learning & Improvement
6. Systems-based Practice

Tools – Initial Certification

- Standards for physics education
- Standards for medical physics education
- Standards for clinical training
- Standards for experience
- Examinations
 - Parts 1,2 and Oral

As much as possible the ABR uses standards developed by the AAPM & CAMPEP

Early 21st Century

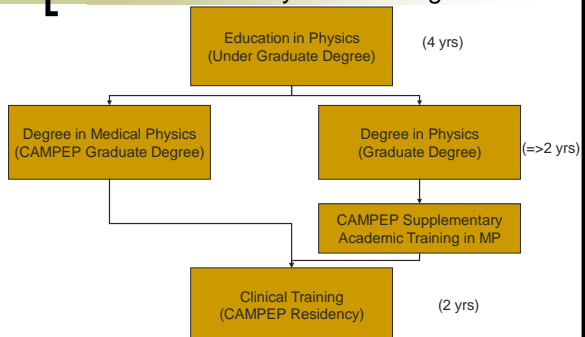


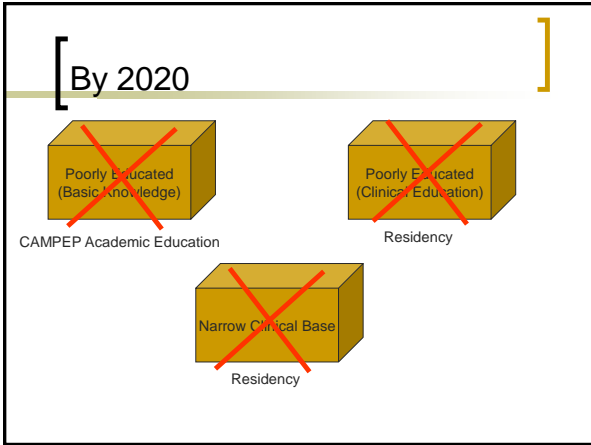
Ten Years to CAMPEP

- In 2002 ABR announced that in 10 years they would require CAMPEP training
- A number of meetings with stake holders
 - AAPM, ABR, CAMPEP, (Many Others)

New Model for Professional Education →

New Model for Clinical Medical Physics Training



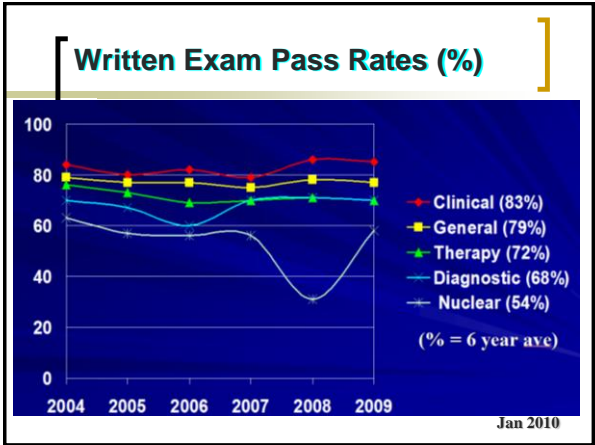


Effects of the Initiatives on Application Numbers

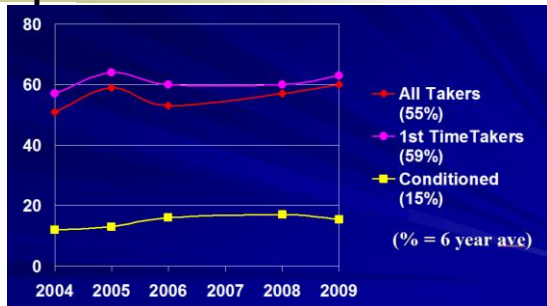
Recent Application Numbers

Part 1 applications have approximately doubled since 2007 and should peak this year.

Record number of oral exams this year and orals should peak in 2013,



Oral Exam Pass Rates (%)



Jan 2010

Failure Rates: non-CAMPEP vs. CAMPEP 2003 - 2009

	Non-CAMPEP	CAMPEP
Part 1	13.3%	11.1%
Part 2	20.7%	10.8%
Oral	28.4%	25.1%

Jan 2010

New Certificates per Year

- Above 200 per year
- This is widely viewed as more than the profession can sustain

Serious Issues Remain

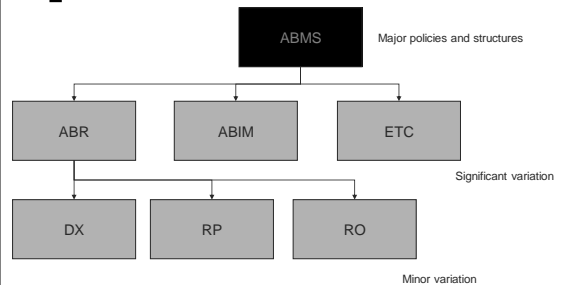
- Number of Residencies
- Total Number of Medical Physicists Needed
- Role of the Professional Doctorate
- *How to Accommodate Physicists Trained in Other Countries*

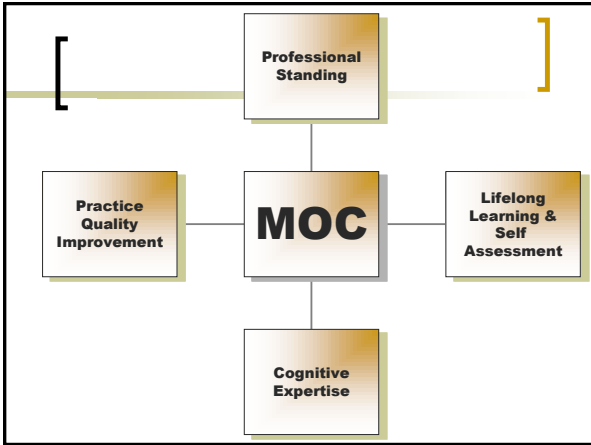
MOC – No significant changes



The Boards want the public and governmental authorities to accept participation in MOC as being reasonable evidence that the practitioner is maintaining his or her professional skills

General Structure





- ## MOC Is Dynamic
- The MOC Requirements Change
 - Refined by ABMS and Individual Boards
 - New Elements Come into Effect in the Later Years of Each Cycle

ABR Personal Data Base

www.abr.org

MOC PDB Login ID: Freyd@musc.edu Password: LOGIN NEW USER

Home	Fees, Exam Dates & Locations	News	Contact Us
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ABOUT THE ABR

Mission and History
Board of Trustees
Policies
Careers at the ABR

INITIAL CERTIFICATION

Welcome to the American Board of Radiology web site

The mission of The American Board of Radiology is to serve patients, the public, and the medical profession by certifying that its diplomates have acquired, demonstrated, and

QUICK LINKS

> Forms



Lifelong Learning & Self Assessment

- 25 hours of MPCEC or Category I
 - 80% for RO in RO
- SAMS
 - RO 1 per year
 - MP 2 per year

The ABMS is adjusting the SAM Requirements so this will change soon.

The net result will probably that some fraction LLL will have to have an evaluation component

Lifelong Learning SDEP's for Physicists

- 15 hours per year can come from SDEP's
 - Self Directed Educational Project

Self Assessment Modules

- 20 [2 per year] physicists
- 10 [1 per year] radiation oncologists
- Some SAMS are on-line
- Most professional organizations offer SAMS at their meetings
- There is a list of approved SAMs on the ABR website

Radiologic Physics

Radiologic Physics SAMs

The SAMs listed below are currently available through websites. The individual SAM hyperlinks have been provided by the SAM sponsoring organization. If you have questions or concerns locating a specific offering, please contact the appropriate sponsoring organization. Other SAMs are available through meetings and conferences. Please check with organizations such as AAPM, ACMP, and RSNA prior to annual meetings for availability.

Note: Radiologic Physicists must take at least 20% of their SAM credits (4 SAMs over a 10 year MOC cycle) in SAMs pertaining to each of their certification areas (Diagnostic Physics, Therapeutic Physics, and/or Nuclear Medicine Physics). Physics General Content SAMs may be used to satisfy this requirement if the topic is relevant to the area of certification.

Category	Title of SAM	Society	Venue	
Physics General Content	Radiation Dosimetry and Dose Risk (Check for Availability)	RSNA	Online	
	Mammography: Dosimetry & Digital Technology	RSNA	Online	
	CT Imaging Quality & Peds Clinical Consideration	RSNA	Online	
	Radiation Protection and Dosimetry in PET and PET/CT	SNM	Online	
	Partial Volume Effect in PET Tumor Imaging	SNM	Online	
	Basic Science of PET and PET/CT	SNM	Online	
	Basic Science Physics & Instrumentation: Recent Advances in SPECT Imaging	SNM	Online	
	To access SNM SAMs, click on "Enrollment and Pricing", then select "Physicians"			

[MOC – Lifelong Process]

- MOC is intended to be a continuous process thus there are limits to the amount of Life-long learning and SAM credits that are acceptable each year
 - Life-long Learning 50
 - SAMS 4 MP & 2 RO

[Temporary Catch-up Provision]

This provision to the MOC Participation policy allows diplomates with a certificate expiring from 2009-2015 to complete triple the normal yearly MOC requirements during a calendar year starting in year seven (7) of the MOC cycle and extending into the three year grace period, if necessary.

[Temporary Catch-up Provision]

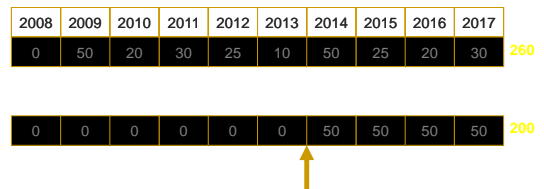
Details of provision:

Is available to all Diagnostic Radiology, Radiation Oncology and Radiologic Physics diplomates with a certificate expiring from 2009 - 2015.

Reporting triple the normal requirements is not available until year 7 of MOC cycle and extends through the end of the 3 year grace period, if needed.

This provision to the MOC Participation Policy will expire on December 31, 2018

[Getting Behind]



There is a point where it is impossible not to have a lapse in your certification. Enters "Non-recoverable" status



Dr. G. Donald Frey (ABR ID P0516) Logout

Welcome back Dr. G. Donald Frey !

You last signed in on Jun 26 2008 5:55AM

MOC Enrollment: You are currently enrolled in: MOC in Medical Nuclear Physics and MOC in Diagnostic Radiologic Physics .

Licenses: You do not have any state license on file with The ABR.

Payments: Your current balance due is \$0.00.

MOC Status: Your MOC Cycle in Medical Nuclear Physics & MOC in Diagnostic Radiologic Physics will complete in 2015.

Part 1: Professional Standing	Attestation is due in year 6 of your MOC cycle.
Part 2: Lifelong Learning & Self Assessment	155 Category 1 Credits 15 SDEP Credits 4 SAMs
Part 3: Cognitive Expertise	Exams to be available starting in 2010.
Part 4: Practice Quality Improvement	

Official CME/SAM Attestation (Required)

Record your official Category 1, SDEP, & SAM count here.

Year Credited (YYYY)	Category 1 Credits	SDEP Credits (1 Project=15 Credits)	SAM Credits	
2008	20	0	0	Edit
2007	50	0	4	Edit
2006	35 **	15	0	Edit
2005	50	0	0	Edit
2004	0	0	0	Edit

***All CME credits (Category 1 & SDEP) before Dec 09, 2004 and SAM credits before Dec 09, 2004 cannot be applied to your MOC Cycle. Please ensure your total credits attested for those years does not include credits earned prior to those dates. ** CME Gateway reports you have at least 70.5 Category 1 credits for 2006. You may claim a maximum of 50 Category 1 credits per year.**

CME/SAM personal tools (Optional)

This area is for your personal records and is not reported to The ABR.

ASTRO Authenticated Credits		CME Gateway Authenticated Credits				Credits I've Accumulated Self-Entered (Not Authenticated)	
Year Credited	Organization	Category 1 Credits	SAM Credits				
Coming Soon!							
We're working hand in hand with ASTRO to allow you to pull your data directly over into your Personal Database (PDB) for display. Check back soon for updates.							
2007	CAMPEP	94				2008	
2007	RSNA	15	2			2007	
2006	CAMPEP	47.25				2006	
2006	RSNA	23.25				2005	
2005	RSNA	16.75				2004	
Previous Years							

Member Login
My Profile
Logout

CMEgateway.org

HOME PROFILE RECORDS CERTIFICATIONS ORGANIZATIONS SOCIETY PAGE SAM CONTACT FAQ

[ABR](#)
[RSNA](#)
[ACR](#)
[SNM](#)
[AFRR](#)
[ASNC](#)
[ASNR](#)
[ASRT](#)

To register with an organization, check the box next to the organization, and enter the username and password provided by them. When you have finished adding the username and passwords, click the "REGISTER" button. You can edit your registration at anytime by checking the box and re-entering your username and password.

FILE IN YOUR CREDITS FROM THE FOLLOWING ORGANIZATION:

The following organizations are offering to share their credits with the cmegateway, allowing you to view your credits in a central location, or optionally to share those credits with the organizations listed below.

ORGANIZATION	USERNAME	PASSWORD	REGISTERED
<input type="checkbox"/> Radiological Society of North America			<input checked="" type="checkbox"/> DEL.DEL
<input type="checkbox"/> American College of Radiology			<input checked="" type="checkbox"/> DEL.DEL
<input type="checkbox"/> Society of Nuclear Medicine			<input checked="" type="checkbox"/> DEL.DEL
<input type="checkbox"/> American Roentgen Ray Society			<input checked="" type="checkbox"/> DEL.DEL
<input type="checkbox"/> Society of Interventional Radiology			<input type="checkbox"/> DEL.DEL
<input type="checkbox"/> American Society of Neuroradiology			<input type="checkbox"/> DEL.DEL
<input type="checkbox"/> The Society for Pediatric Radiology			<input type="checkbox"/> DEL.DEL
<input type="checkbox"/> Commission on Accreditation of Medical Physics Education Programs, Inc.			<input checked="" type="checkbox"/> DEL.DEL

SHARE YOUR CREDITS WITH THE FOLLOWING ORGANIZATION:

The following organizations would like for you to share your credits with them. You can allow this by entering your username and password for their organization in the same way that you would register with the organizations above.

ORGANIZATION	USERNAME	PASSWORD	REGISTERED
<input type="checkbox"/> American Board of Radiology			<input checked="" type="checkbox"/> DEL.DEL

[REGISTER](#)

The following organizations would like for you to share your credits with them. You can allow this by entering your username and password for their organization in the same way that you would register with the organizations above.

ORGANIZATION	USERNAME	PASSWORD	REGISTERED	OPT OUT
American Board of Radiology			<input checked="" type="checkbox"/>	<input type="checkbox"/>

Maintenance of Certification Cognitive Exam

Cognitive Exam

- One per Cycle
- Take in years
 - 8, 9, 10
 - (This may change)
- Pilot was given in 2009
- First Exam 2010

Cognitive Exam

- Required by ABMS
 - So all ABMS boards have an exam in all disciplines
- Some research shows that an exam improves performance
- However – some groups like the Royal College in Canada do not require one

[Study Guides Are Provided]

- 30% basic
- 70% new material
- Clinical Protocols
- Standards
- Relevant Documents

[Issues]

- Most people will maintain their competency
- Exam needs to be sensitive and specific
- Exam needs to be acceptable to legislators, and regulators
- Exam needs to be acceptable to the general public

[Exam Validation]

- Criteria Referenced
- Validated

[Status]

- Pilot in 2009
 - Pass Rate ~75%
- Exams available
 - Years 8-10
 - Exam was given in Fall 2010
 - Very Small Numbers



Practice Quality Improvement

- All diplomates must have training in PQI
- All must be continuously involved in the PQI process

PQI - Rationale

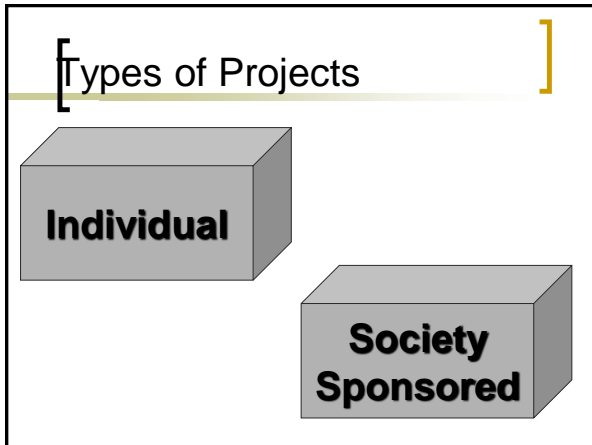
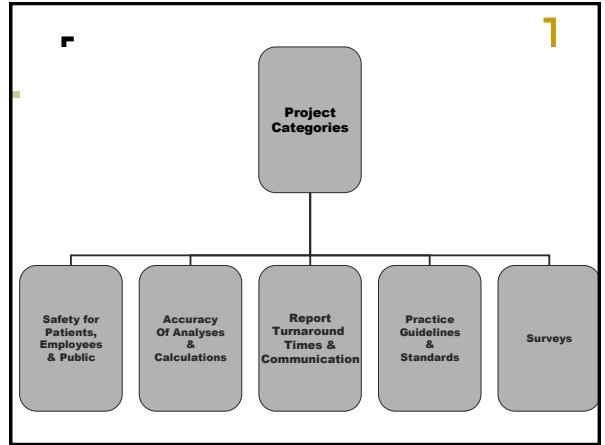
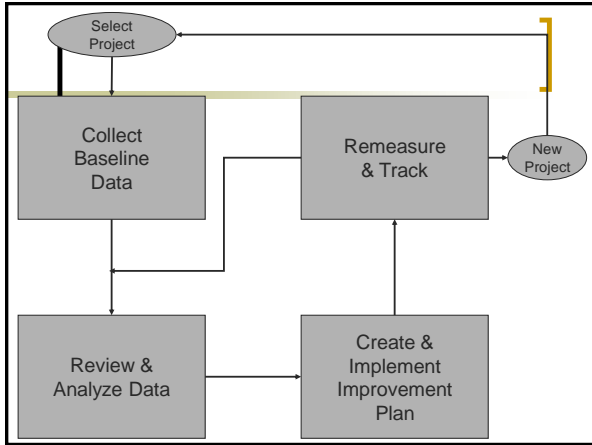
- Significant issues of quality and safety in medicine
 - Institute of Medicine "To Err Is Human"
- Industrial Experience from Manufacturing
 - Process Control

First Steps

- Training is the First Step
- We need to learn to do effective projects that improve health and safety
- We need to incorporate PQI into the fabric of the culture of our work
- It took Toyota more than 20 years to transform it's manufacturing culture

ABR PQI Process

The first year is allocated to training in PQI. The best way to do this is to do a SDEP,



-
- PQI Developments**
- Working on a number of fronts to make it “easier”
 - Group Practice projects
 - Physics and physician components
 - Institution projects – whole “health system” for example. Would get “deemed status” from ABMS
 - Templates – make personnel projects easier

Fee's and Late Fees

- ABR has had a significant expense associated with MOC
 - MOC Staff
- Increased fees for ABMS

Fees

- For original enrolled individuals the fee was constant for all 10 years of the cycle.
- This will start to increase on an annual basis beginning with the group having certificates expiring in 2018 and will apply to other groups when they finish their first cycle.

Late (or No) Payment Has Been An Issue

- Not nearly so much for physics as for the other disciplines
- However since on January 1, 2009 a late fee of \$100 applies for those who have not paid the previous years fees.

The ABR Takes the Following Steps to Keep Enrolled Individuals Informed

- 1) Discussions held at ABR Booth at
- 2) Pamphlets distributed at year
- 3) Trustee presentations
- 4) Articles, announcements
- 5) The Board
- 6) ABR
- 7) ABR
- 8) Surveys
- 9) Webinars
- 10) Direct mail questions
- 11) One-on-one meetings with diplomates in office
- 12) Surveys

Please check your POB on a regular basis

[MOC]

- The full integration of the MOC process so its components are fully integrated into the training and practice of diplomates will be lengthy
- However this process will strengthen the professions and increase public trust

