

## Update 2006: The ABR Maintenance of Certification (MOC) Program for Medical Physicists

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**Chair: AAPM TG-127: MOC**

## The ABR Maintenance of Certification (MOC) Program for Medical Physicists

### Today's Objectives:

- 1.) To review the components of the ABR MOC program as required for Medical Physicists.
- 2.) To review the process by which Medical Physicists may complete the MOC program.
- 3.) To review the activities of AAPM TG-127 on MOC
- 4.) To provide the opportunity for asking questions !

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## The ABR Maintenance of Certification (MOC) Program for Medical Physicists

### Target Audience:

- 1.) Diplomates who received time limited certificates (TLCs) in 2002, 2003, 2004, 2005, 2006.
- 2.) Individuals planning to take The ABR certification exams in the next several years.
- 3.) ABR diplomates with life-time certificates (certified prior to 2002) but who want to engage in The ABR MOC out of a sense of professional responsibility.
- 4.) ABMP diplomates with letters of certification equivalence (LoCE) who wish to seek ABR certification.

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## The ABR MOC Program

**ABR Headquarters Building  
Tucson, Arizona**



**URL: <http://theabr.org>**

**On home page one finds: ABR-MOC button**

## The ABR's MOC Initiatives

- 1998: Concerted efforts initiated by The ABR toward the development of its MOC process.
- A committee of Medical Physicists was appointed to assist The ABR in formulating its MOC program for Radiologic Physics.
- Dec 2001: The ABR convened a meeting to engage each of its sponsoring organizations (ACR, ARRS, AUR, RSNA, ASTRO, AAPM, ARS, AMA) in planning MOC.
- Jan 2004: The ABR sponsored meeting on "Implementing MOC: Issues and Strategies". Interactive involvement of societies in discussion of key issues for effective implementation of MOC as an inclusive process.
- Aug 2005: Summit meeting on issues concerning Self Assessment Modules (SAMs)
- Aug 19, 2006: Summit meeting on Part IV: Practice Performance Improvement (PPI)

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## Time Limited Certificates (TLCs) – A Major Paradigm Shift

- Life-time certification based on a one-time successful passing of a cognitive exam is no longer considered adequate and is being replaced by TLCs incorporating a program of continuous professional development.
- Growing awareness that continuous professional enhancement is essential to ensuring high quality health care in era of rapidly advancing technology.
- Recognition that active programs and evidence-based measures are required to demonstrate that practitioners are remaining current in their fields.
- IOM Report on Medical Errors: Recommendation 7.2 calls for implementation of "periodic re-examination and re-licensing of doctors .... and other key providers".

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## Radiology's Perspective of MOC: Responsibilities

### Consensus:

- The ABR is responsible for coordinating and administering MOC in radiology.
- Other radiology societies are responsible for establishing mechanisms for lifelong learning and components of Practice Performance Improvement.

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## American Board of Medical Specialties (ABMS)

- **Established 1933:** Now composed of 24 member boards: Past-President (2001) - James Youker, MD (ABR)
- **Mission (in part):** To maintain and improve the quality of medical care by assisting the member boards in their efforts to develop and utilize professional and educational standards for the evaluation and certification of physician specialists.
- **1973/1993:** Formal policy regarding recertification.
- **March 2000:** Agreed that existing or planned programs of recertification would evolve into programs of: Maintenance of Certification (MOC).
- **Committee on Oversight and Monitoring of MOC (COMMOC)** SR Thomas: Elected member

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## ABMS: Four Components of MOC

- **Component 1: Professional Standing**
  - Physicians; Unrestricted license
  - Physicists; Unrestricted license or practice involvement documentation (Letters of Attestation)
- **Component 2: Lifelong Learning and Self-Assessment**
  - The requirement to keep current in the field. Renewing & expanding knowledge, skills, competence, and performance for the purpose of improving the quality of patient care.
- **Component 3: Cognitive Expertise**
  - Examination process.
- **Component 4: Practice Performance Improvement**
  - Assessment regarding support of patient care.

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## ABMS: Six Competencies (Specific to Radiologic Physics)

- **Medical Knowledge:** Understand and apply appropriate radiologic physics techniques to meet the needs of patients, health care providers, and the health care system. Engage in continuous learning.
- **Patient Care:**
- **Interpersonal & Communication Skills:**
- **Professionalism:**
- **Practice Based Learning & Improvement:**
- **Systems Based Practice:** Realize that radiologic physics is one part of a continuum of patient care. Work towards integration and continuous improvement.

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## Competencies Specific to Radiologic Physics

1. **Patient Care:** Contribute to and support patient care through maintenance of a strong knowledge of radiologic physics and its implementation within the clinical environment. Continuously self-assess practice, cognitive knowledge and applications of radiologic physics to new practice developments.
2. **Practice Knowledge:** Understand and apply appropriate radiologic physics techniques to meet the need of patients, health care providers and the health care system. Engage in continuous learning about the prevention, detection, diagnosis and treatment of disease, and the contributions of radiologic Physics to their improvement.

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## Competencies Specific to Radiologic Physics

3. **Interpersonal and Communication Skills:** Communicate effectively with patients, colleagues, referring and other professional in the health care team concerning appropriateness, quality and safety of radiologic physics procedures.
4. **Professionalism:** Commit to high standards of professional responsibilities and demonstrate self-awareness and knowledge concerning ethical and moral issues, patient dignity with sensitivity to cultural differences, and respect for the individual needs of the patient, professional colleagues and others in the health care system.

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## Competencies Specific to Radiologic Physics

5. Practice-based Learning and Improvement: Participate in the application and review of one's own practice with continuous participation in self-assessment and improvement programs. Utilization of continuous quality improvement principles related to analysis of practice-based systems.
6. Systems-based Practice: Realize that radiologic physics is one part of a continuum of patient care and work toward integration and continuous improvement measurements individually and within the health care network.

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## The ABR – Current MOC Status re Radiological Physics

- Beginning in 2002, all ABR certifications were time limited to 10 years.
- For Radiological Physics this includes:
  - ✓ Diagnostic Radiologic Physics
  - ✓ Therapeutic Radiologic Physics
  - ✓ Medical Nuclear Physics
- The MOC timelines and processes have been defined and are being configured for implementation in 2006.

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## Elements of the MOC Process (Incl. MOC Part I and Part IV)

Bhudatt R. Paliwal, Ph.D.

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## Elements of the MOC Process

Bhudatt R. Paliwal, Ph.D.

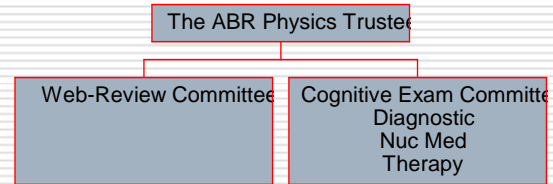
Trustee: Therapeutic Radiologic Physics  
Assistant Executive Director, Radiologic Physics

## Topics to be addressed

- Overview of RP MOC Committee structure
- Concept of the web-based process
- Practice Performance Improvement (to be developed)
  - Expectations
  - Preliminary details

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## The ABR MOC Physics Committees Structure



## Web-Review Committee Membership

Bruce Thomadsen (chair)  
 Don Frey  
 Bruce Garbi  
 Michael Mills  
 Larry Williams  
 William Hendee  
 Bhudat Paliwal  
 Stephen Thomas

## Cognitive Exam Committee Membership

| Diagnostic      | Nuclear Medicine  | Therapy          |
|-----------------|-------------------|------------------|
| J Hazle (chair) | G Simmons (chair) | M Herman (chair) |
| L Rothenberg    | J Halama          | G Ezzell         |
| C Wilson        | M Madsen          | E Hendee         |
| W Hendee        | S Thomas          | E Klein          |
|                 |                   | B Paliwal        |

## Web-Based Process

- Available now
- Web-based application (Password protected)
- A step by step process for MOC
- Easy to use and effective tools
- Comprehensive documentation
- Submit documents
- Maintaining files
- Includes testing process
- Reporting results
- Review status

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The screenshot shows the ABR website homepage in a browser window. The address bar displays 'http://www.theabr.org/'. The page features a navigation menu with links for Home, Fees, Dates & Locations, Forms, MOC Personal Profile (Coming Soon), News, General FAQs & Verification, About Us, and Contact Us. A central section titled 'Where Are You?' contains a message about keeping contact information updated and a 'contact us' link. To the right, there is a section for 'MOC Exam Registration Deadlines' with two entries: 'MOC-Subspecialty Exam - January 11, 12 & 13, 2006' (Register by - October 10, 2005) and 'MOC-Radiation Oncology Exam - April 28, 2006' (Register by - January 27, 2006). At the bottom, there is a horizontal menu with links for Diagnostic Radiologists, Radiation Oncologists, Radiologic Physicists, Neuroradiologists, Nuclear Radiologists, Pediatric Radiologists, and Vascular & Interventional Radiologists. The footer includes the copyright notice '© 2005, The American Board Of Radiology.'

The screenshot shows the login page of the ABR online portal in a browser window. The address bar displays 'http://www.abronline.org/'. The page features a header with the ABR logo and the text 'The American Board of Radiology' and 'Certifying Radiologic Physicists in North America since 1934'. The main content area is titled 'Certified by The ABR? Please sign in to access your account.' and contains a login form with fields for 'Login ID: (Email address)' and 'Password', and a 'Login' button. Below the form, there is a link for 'Forgot your password? click here.' The browser's status bar shows 'Local intranet'.

The screenshot shows the user dashboard of the ABR online portal. The user is signed in as 'Bhudatt R. Paliwal, B. R.' with ID '#P0236'. The dashboard displays a welcome message: 'Welcome back Dr. Bhudatt R. Paliwal ! You last signed in on Jul 18 2006 12:14PM'. Below this, there are several sections of information: 'MOC Enrollment' (You are currently enrolled in: MOC in Therapeutic Radiologic Physics), 'Certificates' (You do not have any state license on file with The ABR.), 'Payments' (Your current balance is \$0.00.), and 'MOC status (Timeline)'. The timeline indicates that the MOC cycle will complete in 2015 and lists four parts: Part 1: Professional Standing (Attestation due in years 5 & 10 of your MOC cycle), Part 2: Lifelong Learning & Self Assessment (0 Category 1, 0 SAMs, 0 SDEP credits), Part 3: Cognitive Expertise (Exams to be available starting in 2010), and Part 4: Practice Performance Improvement.

Signed In: #P0236  
Paliwal, B. R.

Home MOC Access MOC Timeline Certs & History Personal Info Pay Online Options/Help

### Choose your MOC related task from the list below

- Update my MOC related information:
  - [Professional standing](#)
  - [Lifelong Learning & Self Assessment](#)
  - [Cognitive Expertise](#)
  - [Practice Performance Improvement](#)
- [Learn More about MOC \(Maintenance of Certification\)](#)
- [Physics MOC FAQs](#)
- [View my current enrollment status / enroll in MOC](#)

### Your Certification Timeline

**1 ABR Certification(s) Held:**  
 Certificate Expires  
 1 Radiologic Physics Lifetime

**0 State License(s) Held:**  
[There are no active state licenses on file.](#)

**Current MOC Enrollments:**  
 MOC in Therapeutic Radiologic Physics

Legend: Past (orange), Present (yellow), Future (Projected) (green)

#### Requirements for MOC in Therapeutic Radiologic Physics

| Calendar Year                     | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013           | 2014 | 2015 | Summary    |
|-----------------------------------|------|------|------|------|------|------|------|------|----------------|------|------|------------|
| Category 1 Credits (CAMPEP/Other) |      |      |      |      |      |      |      |      |                |      |      | 0/250*     |
| SDEP Credits                      |      |      |      |      |      |      |      |      |                |      |      | 0          |
| Total Credits                     |      |      |      |      |      |      |      |      |                |      |      | 0/500      |
| SAMs Completed                    |      |      |      |      |      |      |      |      |                |      |      | 0/18       |
| Cognitive Exam                    |      |      |      |      |      |      |      |      | Exam Available |      |      | 0/1 Passed |
| Cycle Year                        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8              | 9    | 10   |            |

Signed In: #P0236  
Paliwal, B. R.

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### Lifelong Learning

**Category One**  
(CAMPEP or other recognized accrediting organizations)

View Credits for  :  
0 credits

| Organization | Course Code # | Title | Date Credited (mm/dd/yyyy) | # of Credits |
|--------------|---------------|-------|----------------------------|--------------|
|              |               |       |                            |              |

There are no records on file for that period.

Signed In: #P0236  
Paliwal, B. R.

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### Lifelong Learning

**Self Assessment Modules**  
(CAMPEP or other recognized accrediting organizations and ABR qualified)

View Credits for  :  
0 credits

| Organization | Course Code # | Title | Date Credited (mm/dd/yyyy) | # of Credits |
|--------------|---------------|-------|----------------------------|--------------|
|              |               |       |                            |              |

There are no records on file for that period.

Signed In: #P0236  
Paliwal, B. R.

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### Lifelong Learning

#### Self Directed Educational Projects (SDEPs)

View Total Credits for  : 0 credits

| Title | Category | Date Initiated (mm/dd/yyyy) | Date Completed (mm/dd/yyyy) | # of Credits |
|-------|----------|-----------------------------|-----------------------------|--------------|
|       |          |                             |                             |              |

Update

Signed In: #P0236  
Paliwal, B. R.

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### Personal Information for Dr. Bhudatt R. Paliwal

ABR ID# P0236  
Items in bold cannot be changed online.

|                 |                    |                     |                         |
|-----------------|--------------------|---------------------|-------------------------|
| Name:           | Bhudatt R. Paliwal | Choose Address :    | Home                    |
| Gender:         | M                  | Preferred Name:     |                         |
| Date of Birth:  | Aug 12, 1938       | Address:            | 1530 Comanche Glen      |
| Place of Birth: | INDIA              | Address (conf'd.):  |                         |
| Degrees Held:   | PhD                | Address (conf'd.):  |                         |
|                 |                    | City:               | Madison                 |
|                 |                    | State:              | WI                      |
|                 |                    | Zip:                | 53704                   |
|                 |                    | Country:            | USA                     |
|                 |                    | Work Email Address: | paliwal@humonc.wisc.edu |
|                 |                    | Home Email Address: |                         |
|                 |                    | Fax #:              | 608-263-9167            |
|                 |                    | Office Phone #:     | 608-263-8514            |
|                 |                    | Cell Phone #:       |                         |

Paliwal, B. R.

Home MOC Access MOC Timeline Certs & History Personal Info Pay Online Options/Help

### Enrollment for Maintenance of Certification: Radiologic Physics

**Record of Continuing Education Activities**  
Through submission of this form to The American Board of Radiology for purposes of Maintenance of Certification I as a diplomate certify that all information provided is accurate and true. I understand any purposeful submission of false information may be grounds for revocation of certification.

**Applicant Information** (Click here if information is incorrect)  
**Name:** Bhudatt R. Paliwal  
**Degrees:** PhD  
**Date of Birth:** Aug 12, 1938  
**Mailing Address:** 1530 Comanche Glen Madison WI USA 53704  
**Work Email Address:** paliwal@humonc.wisc.edu  
**Office Telephone:** 608-263-8514  
**Home Telephone:** 608-249-0624

- Lifetime Certificate: Radiologic Physics - 6/11/1977  
Click Here to download the enrollment form for MOC in Diagnostic Radiologic Physics.
- Lifetime Certificate: Radiologic Physics - 6/11/1977  
Click Here to download the enrollment form for MOC in Medical Nuclear Physics.
- Lifetime Certificate: Radiologic Physics - 6/11/1977  
MOC in Therapeutic Radiologic Physics:  
Cycle Begins: Dec 31, 2005 Expires: 2015

ABR The American Board of Radiology

### Maintenance of Certification Lifetime Certificate Holder Enrollment

TYPE OR PRINT (IN BLUE) ALL INFORMATION

**CONTACT INFORMATION**  
Please indicate whether any of this information has changed or has you had additional:  
 Name  SSN  Mailing Address  Work Telephone  
 (What was your name when you received your last certificate?)

Social Security No. (U.S. or Canada): \_\_\_\_\_ Date of Birth: MM/DD/YYYY \_\_\_\_\_  
 Home Address: \_\_\_\_\_  
 Apt. \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Please list your current employer/position/office name and contact information:  
 Employer or Practice Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Please indicate the address where you wish to receive correspondence:  Work  Home  
 (If this is not home correspondence will be sent to your home address.)

Telephone Numbers:  Office: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Home: \_\_\_\_\_ Fax: \_\_\_\_\_

E-Mail Addresses:  Office: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Home: \_\_\_\_\_ Fax: \_\_\_\_\_

## **The MOC Program for Radiologic Physics is Evolving....**

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It is expected to continuously evolve as MOC processes are refined and fine-tuned.

The ABR is acutely responsive to:  
The directives of the ABMS

However, The ABR is acutely sensitive to:  
The RP diplomates  
The radiology societies

## **Possible Options for Elements of Professional Practice Review**

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1. A formal review by an outside/inside, medical physicist and or professional in health services
2. An annual overall review
3. An on-site visit
4. An informal interview with the incumbent physicist
5. Written report summarizing the findings

## **Evaluation of performance in practice**

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Peer review

- Internal professional workers
- External peers

## **Performance Evaluation Measures**

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- Technical components
    - Example: AAPM report 103
  - Professional Standards / Guidelines
  - Education / teaching components
  - Professional component
    - Example: Human resources evaluation
-

## Performance Evaluation Based Improvements

- Comparison of sequential technical and performance reviews over the ten year MOC cycle

## Professional Evaluation

| Criteria         | Profession Review Criteria and scores |  |  |   |              |
|------------------|---------------------------------------|--|--|---|--------------|
|                  | Score                                 | 5  | 4  | 3   | 2            |
| Quantity of work | Nonproducer                           | Produces with some supervision                       | Produces without supervision                 | Produces extraordinarily well without supervision | Outstanding  |
| Quality of work  | Produces unnecessary work             | Completes necessary work                             | Produces value-added work                    | Maximizes value-added work                        | Outstanding  |
| Knowledge        | Knows very little about job           | Has good working knowledge of job                    | Has detailed knowledge of job                | Is a recognized expert                            | Outstanding  |
| Desire to learn  | Shows no desire to learn              | Is willing to learn more                             | Wants to learn more                          | Has a particularly strong desire to learn more    | Outstanding  |
| Initiative       | Shows no initiative                   | Shows some initiative                                | Shows considerable initiative (self-starter) | Shows extraordinary initiative                    | Outstanding  |
| Reliability      | Is completely unreliable              | Is generally reliable but needs supervision at times | Is very reliable                             | Is always reliable                                | Outstanding  |
| Attitude         | Consistently negative                 | Occasionally negative                                | pleasant                                     | pleasant and positive                             | Enthusiastic |
| Communication    | Unfriendly and uncommunicative        | Friendly but poor communicator                       | Friendly and good communicator               | Very friendly and effective communicator          | Outstanding  |

## Peer Review: Technical components

- Independent check of output
- Five chart audits
- Compliance with TG 40
- Documentation of clinical physics programs (CPP)
- CPP compliance with regulatory agencies
- Continuing professional physics development
- Physics backup support
- Workload and staffing adequacy
- Equipment maintenance and service

## Peer Review: Practice components

- Professional
- Quantity of work
- Quality of work
- Knowledge
- Desire to learn
- Initiative
- Reliability
- Attitude
- Communication

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Thank You

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**Lifelong Learning and  
Self-assessment  
(MOC Part II)**

**G. Donald Frey, Ph.D.**

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Topics to be addressed by Morin

- Guidelines and requirements
- Self Directed Educational Projects (SDEPs)
- Self-assessment process
  - SAMs

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## Lifelong Learning and Periodic Self-Assessment

- 500 Continuing Education Credits over 10 years
- Lifelong Learning: Continuing Education Credits
- Lifelong Learning: Self-Directed Educational Projects (SDEP)-optional
- Periodic Self-Assessment: Self-Assessment Modules (SAMS)

## LIFELONG LEARNING (LL)

- Approved CE credits  
CAMPEP or other (e.g. ACCME Cat. 1 )  
Minimum of 250 credits over 10 years
- Self-Directed Educational Projects (optional)  
(SDEPs) (15 credits per project)

## SDEP Ideas!

1. Update my knowledge of quality control instrumentation and procedures
2. Learn about applications, quality control, safety standards and regulations related to the medical uses of lasers in response to new duties.
3. Understand the Privacy Act, the HIPAA regulations that emanate from it, and how these regulations impact on the practice.

## More SDEP Ideas!

4. Expand my knowledge of PET or MR etc, its current and potential clinical applications, and the fusion of PET images with CT images.
5. Improve my knowledge of the scientific basis of the linear, no-threshold dose-response model of radiation injury, and current controversies associated with this model and its use to estimate radiation risks in humans.
6. Increase my understanding of duplex Doppler ultrasound and its applications in cardiology and cardiovascular medicine.

## More SDEP Ideas!

7. Prepare and publish original work/research
8. Enhance my understanding of molecular imaging and its applications to molecular biology and genetics.
9. Prepare a lecture on (radiologic physics) for (medical residents)
10. Develop a clinical protocol for the use of (new technology)

## Periodic Self Assessment

CAMPEP or Category 1 approved and ABR qualified  
Relevant to clinical practice in 1 of 4 physics areas

|            |                 |
|------------|-----------------|
| general    | therapeutic     |
| diagnostic | medical nuclear |

At least 5 multiple-choice answers  
Twenty SAMS completed over 10 years, 1 per year minimum

## Cognitive Examination (MOC Part III)

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## Cognitive Expertise

- Expected to
  - maintain the essentials of core knowledge fundamental to the practice of Radiologic Physics, and
  - to remain up-to date on evolving technologies, protocols, procedures and techniques involving applications of physics in medicine.
- Fulfillment of these expectations will occur by evaluation of cognitive expertise utilizing a multiple-choice examination in a secure testing center.

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## **“Philosophy” of the Cognitive Exam – ABR Point of View**

- Configured as an instrument that promotes the theme of continuous learning, thus
- Designed as an integral part of the continuous learning process and not as an unpleasant hurdle to overcome
- Constructed so that it is relevant to practice
- Degree of difficulty to be set at a realistic level with the expectation that the pass rate will be relatively high
- Guidance will be provided to the diplomates to assist in preparation

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## **Cognitive Expertise**

- The examination format will be 100 un-weighted multiple-choice questions with content based on
  - 1) core knowledge (approximately 30%),
  - 2) current evolving technologies (approximately 70%).
- Necessary reference material will be embedded in the questions.
- Newly formatted cognitive exam will be available on a yearly basis.
- A diplomate who fails an exam will have the opportunity to retake the examination, offered in the next year.
- The exam should be taken during the eighth, ninth or tenth year.
- First exam offered in 2010.

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## **AAPM TG-127: MOC**

**Michael V. Yester, Ph.D.**

ABR/AAPM - Aug, 2006

## **TG -127 and MOC**

**Michael Yester, Ph.D.**  
**The University of Alabama at Birmingham**

### AAPM and MOC

- ABMS guidelines are the Norm
- Formation of Task Group (TG - 127) at about the time Trustees had submitted modifications to the original MOC proposal to ABMS
- TG -- 127
  - Act as a resource to the ABR Physics Trustees and AAPM members concerning MOC requirements and implementation
  - Provide information/suggestions on activities that meet MOC requirements
  - Insure that educational activities are available to members

### TG 127

- Membership (12)
  - Representation from Professional Information and Clinical Relations Committee (PICR) of Professional Council
  - Educational Council
    - Continuing Professional Development
    - Education and Training of Medical Physicists
  - Spectrum of individuals with different certifications
  - Includes newly certified individuals

### TG 127

- Major recognition that it is the ABMS that is in charge of MOC through the ABR Physics Trustees
- ABR Trustees have been willing to listen; however, as noted, the current published guidelines were submitted to ABMS prior to formation of TG

### TG work

- Conference call
- E-mail
  - Working to understand the guidelines as submitted to ABMS
  - Reviewed the guidelines as a group with comments
  - Specifically explored CEUs and impact on individuals
  - Initial consideration on Performance in Practice possibilities
- Summary as follows

### Professional Standing

- current guidelines seem workable

### Lifelong Learning & Self-Assessment

- This is an area that has been the subject of much discussion, particularly lifelong learning
- in essence
  - 25 CE credits per year, category 1
  - 25 credits per year, category 1 or SDEPs
- Group concerned over total
  - Difficulties perceived due to occupational environment (sole physicist, for example), hospital based, consultant, as regards annual attendance at AAPM meeting
  - SDEP opportunities may be limited
  - Many worthwhile educational opportunities that are not category 1

### CE credits

- Concern over the use of only Category 1 or SDEPs for the other 25
- This has been expressed to the ABR Trustees
  - Examples of others,
    - credits for vendor sponsored training
    - Noteworthy conferences at an institution that may not be granted Category 1
- TG feels that a redefinition of activities acceptable for the other 25 credits with 25 category 1 credits would be workable
- Although guidelines have been agreed to by ABMS, trustees are willing to listen
- Compiling more extensive examples for consideration

### CE Credits and SAMs

- It is important to note possible sources of credits
- Use of Online Continuing Education (old RDCE)
- Note: many hours are being captured (audio with slides) at annual meeting and summer schools
- Continuing education courses at the annual meeting can be developed into Self-Assessment Modules (SAMs). SAMs are a “two for” (SAM plus CEUs)
- Logistics to be worked out to accomplish this
- Existing OCE items could be reframed into SAMs

### CE Credits

- Category 1 credits can be from any organization that has been approved for Category 1 credits
- Do not have to have CAMPEP credits alone
- AAPM Chapter meetings often do not seek approval for credit. The process for getting credit has been streamlined so Chapters are encouraged to get credit
- Noon conferences at your institution are generally approved for credit; you might have to keep up with these yourself

### Exam

- Controversial, but mandated by ABMS
- Trustees have expressed interest in guidance on material for the exam

### Assessment of Performance in Practice

- This area is more difficult to define for physicists.
- To date this has only been generally defined
  - One aspect is teaching which lends itself to evaluation
  - A standardized evaluation is being formulated
- Separate group is studying the general topic of clinical practice to submit recommendations to the Trustees
  - Per Halverson is head of this group
- It is recognized that there are significant differences in practices
  - academic -- research, clinical
  - Consulting
  - only physicist at an institution
  - therapy versus diagnostic imaging

### Performance in Practice

- For clinical area a possibility is peer review
  - Example is TG-103, peer review for Radiation Therapy
- Obvious logistical issues and differences in practices as noted
- Ongoing work on this area

## TG 127

- **Discussions Ongoing**
  - Use OCE modules as SAMs with some modifications
  - Exam content
  - Practice Performance Improvement
- **Projects**
  - Information bulletin for members
  - Petition for redefinition of CEUs
  - Master Teaching evaluation Form
  - SAMs at the annual meeting
  - Performance Practice Improvement mechanism ideas

## Future

- MOC program aspects still undergoing definition
- Continuing Education
  - Work towards further defining other 25 credits
- Major effort in SAMs
  - Will need to be a concerted effort
- Still aspects to work out
  - Exam
  - PPI
  - Specific issues for consultant physicists
  - Specific issues for physicists working alone

# Overview & Summary

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## Elements of the MOC Process

### Concept of the Web-Based Process

- Application submission
- Maintaining files
- Review status
- Submitting Documents
- Password protected
- Available third quarter 2006

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## Overview of The ABR MOC Process for Medical Physicists

- Enrollment in MOC is automatic upon award of the initial certificate (diplomates with life-time certificates apply to enter).
- Continuous process throughout cycle (web based).
- Submission of documentation in final (10<sup>th</sup>) year. (Periodic reminders, reviews and audits will be offered as a facilitating service by The ABR.)
- Upon successful fulfillment of MOC requirements:  
New certificate issued: "...<Name> has successfully fulfilled the requirements of this Board's MOC program and is certified as a Diplomate of The American Board of Radiology in <Specialty>."
- The new certificate will contain the new expiration date calculated as 10 years after the preceding certification.

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## Overview of The ABR MOC Process for Medical Physicists

Considerations should the candidate fail to satisfy the requirements for MOC:

- If all 4 components are not successfully completed, upon conclusion of the current period of certification, the candidate would no longer have ABR diplomate status.
- A 3-year reinstatement period *may* be allowed for the candidate to rectify deficits in their MOC program (no diplomate status during that time). Once all components have been successfully completed, certification will be reinstated and will expire 10 years beyond the date of expiration of the prior time limited certificate.
- If the candidate does not complete MOC within the 3 year reinstatement window, required to complete all parts of the primary certification exam to regain diplomate status.

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## Initiation of the MOC Process for Medical Physicists

- Full details are posted on The ABR web site.
- Program to be operational third quarter 2006.
- Diplomates receiving certificates in 2002, 2003, 2004, 2005 will participate in a 'prorated' program reflective of this delayed initiation.
- Enrollment is automatic for TLC holders. Letters from the ABR office providing details are sent out to new diplomates.
- Fees for a complete 10-year cycle:  
Current schedule \$1700 (\$170/year)  
(‘Prorated’ fees are posted on the website.)

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MOC Transitional Program in Radiologic Physics

| Cohort (Year originally certified – Year expires) | Professional Standing    | Lifelong Learning               | Self Assessment     | Cognitive Exam                  | Practice Performance Evaluation                 |
|---|--------------------------|---------------------------------|---------------------|---------------------------------|---|
| 2002-2012   | Years 5, 10 (2007, 2012) | 350 credits (2006-2012)         | 12 SAMs (2007-2012) | In year 8, 9, or 10 (2010-2012) | Two evaluations (2008, 2011)                    |
| 2003-2013   | Years 5, 10 (2008, 2013) | 400 credits (2006-2013)         | 14 SAMs (2007-2013) | In year 8, 9, or 10 (2011-2013) | Two evaluations (2008, 2011)                    |
| 2004-2014   | Years 5, 10 (2009, 2014) | 450 credits (2006-2014)         | 16 SAMs (2007-2014) | In year 8, 9, or 10 (2012-2014) | Two evaluations (2008, 2011)                    |
| 2005-2015   | Years 5, 10 (2010, 2015) | 500 credits (2006-2015)         | 18 SAMs (2007-2015) | In year 8, 9, or 10 (2013-2015) | Two evaluations (2009, 2012)                    |
| All Future MOC Cycles: FULL IMPLEMENTATION        | Years 5, 10              | 500 credits overall: ≥250 Cat 1 | 20 SAMs             | In year 8, 9, or 10             | Two evaluations in the fourth and seventh years |

## Considerations for ABR Diplomates Holding Lifetime Certificates

- Under legal constraints, The ABR cannot change the original terms of issuance.
- The ABR actively encourages all “Older Diplomates” to voluntarily enter MOC. Enrollment forms are available on the web. Note: All ABR Trustees and many ABR committee members have enrolled.
- Through a personal sense of professional responsibility and potential requirements of employers, it is the expectation that a majority of diplomates in active practice will engage.

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## In Summary re ABR MOC (1):

- MOC is a program for promoting the continuing competency of certified Medical Physicists.
- Since, the knowledge base and skills necessary to maintain current in the practice of medical physics are dynamic, there is the requirement to engage in self-assessment and provide a mechanism to document active participation in the continuous learning processes.

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## In Summary re ABR MOC (2):

- The ABR is committed to assisting Medical Physicists in fulfilling the expectations of patients and the public for demonstration of continued competence in the practice of our profession.
- The ABR will work closely with societies and welcomes input as the MOC processes evolve.
- The ABR will implement a fair and creditable process consistent with ABMS guidelines.
- The ABR MOC process is designed to:
  - Satisfy public and professional scrutiny,
  - Foster continuous professional development and practice improvement,
  - Take into account the high quality and diversity of the practice of Radiologic Physics.

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**Thank you for your attention !**

**Now it's time for your Questions**

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