

MOC

Maintenance of Certification

[G. Donald Frey]

Relevant Information:

ABR Trustee

Editor Electronic Medical Physics World

Conflicts:

None to Report

[Objectives]

- Understand the driving forces behind the MOC process.
- Be aware of the educational opportunities in the MOC process



THE
AMERICAN
BOARD OF RADIOLOGY

EXCELLENCE • PROFESSIONALISM • PUBLIC TRUST • EST. 1934



[Why do we have MOC?]

- Society is demanding that someone “police” the medical professions

Institute of Medicine Report

TO ERR IS HUMAN Building a Safer Health System

Linda T. Kohn, Janet M. Corrigan, and
Molla S. Donaldson, *Editors*


Committee on Quality of Health Care in America

INSTITUTE OF MEDICINE

NATIONAL ACADEMY PRESS
Washington, D.C.

- 1999
- 44k to 98k deaths per year from medical errors
- “Break the cycle of inaction





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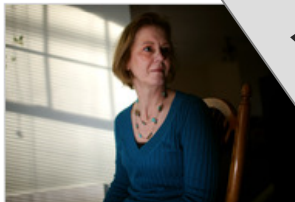
THE RADIATION BOOM

As Technology Surges, Radiation Safeguards Lag

By WALT BOGDANICH
Published: January 26, 2010

In New Jersey, 36 cancer patients at a veterans hospital in Orange were overradiated — and 20 more received a second treatment — by a medical team that lacked a safety protocol and a machine that generated high-powered beams. The errors, which have not been published in the medical literature for months because the hospital was embarrassed, are the latest in a series of radiation errors.

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**Who is going to be responsible for MOC?
Will it be the boards, some other private group like JCAHO,
or the Federal or State Government?**



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At Hearing on Radiation, Calls for Better Oversight

By WALT BOGDANICH
Published: February 26, 2010

WASHINGTON — A dozen witnesses, including representatives of virtually all of the leading professional groups in medical radiation, told a House subcommittee during a hearing Friday that more needed to be done to make sure that radiation continues to help, not harm, patients.

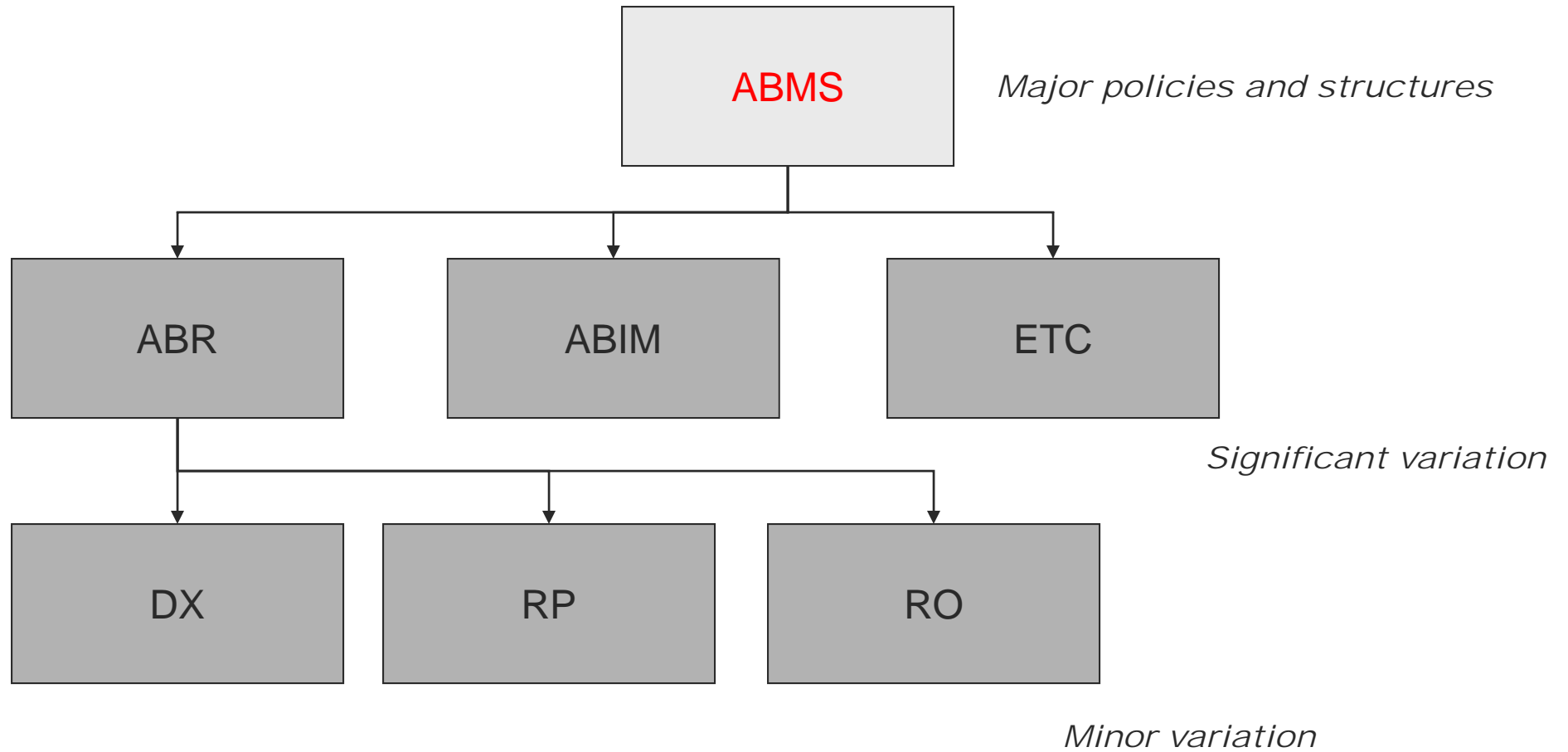
[Enlarge This Image](#) The call for a more standardized,

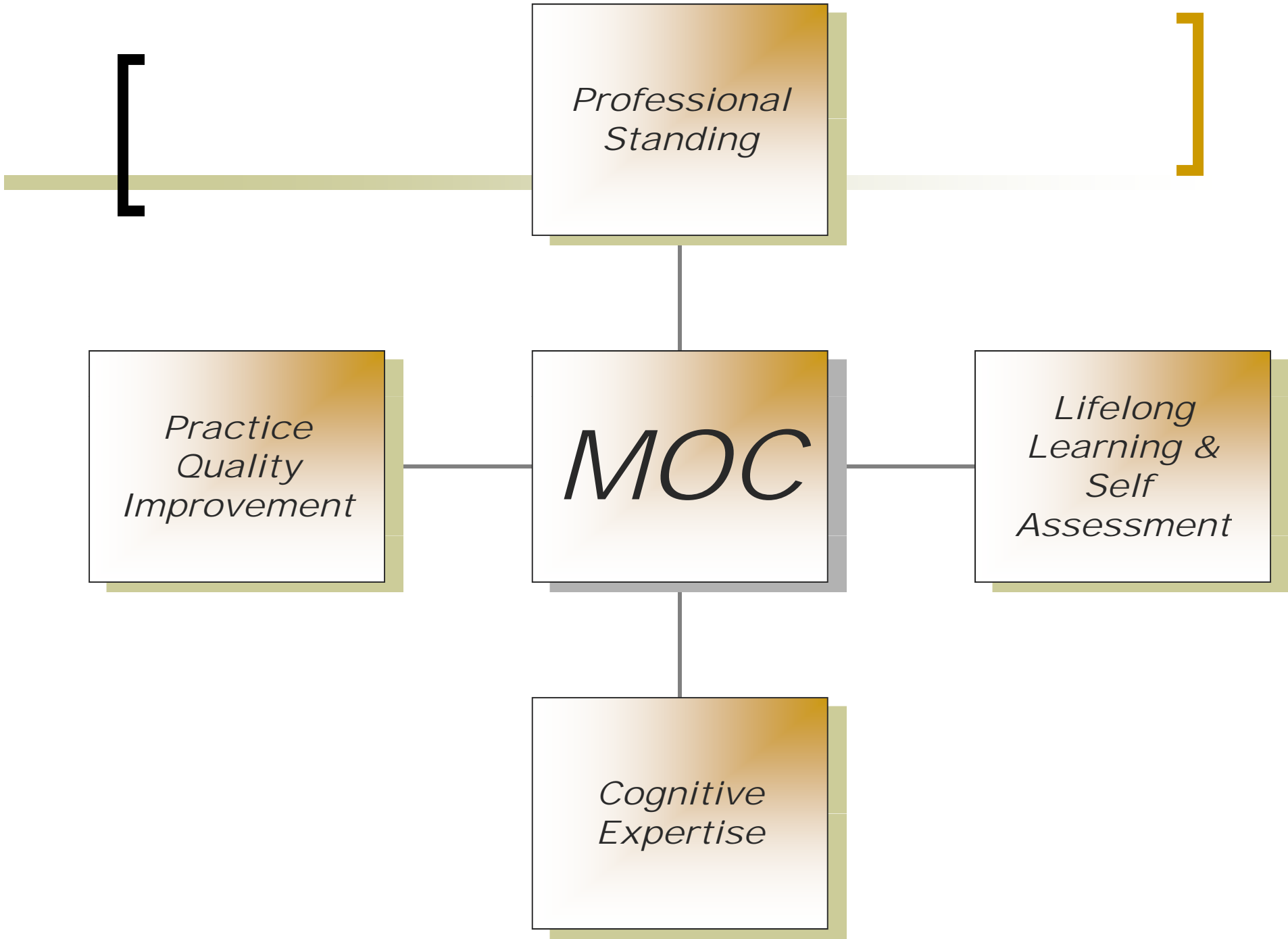
- SIGN IN TO RECOMMEND
- TWITTER
- E-MAIL
- SEND TO PHONE
- PRINT
- REPRINTS

A decorative graphic consisting of a thin yellow circle on the left side and a yellow bracket on the right side, both partially overlapping the text area.

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

[General Structure]





*Professional
Standing*

*Practice
Quality
Improvement*

MOC

*Lifelong
Learning &
Self
Assessment*

*Cognitive
Expertise*

[The MOC Requirements]

- ABR Website
 - www.theabr.org

[How do we use MOC in education?]

- SDEPS – Self Directed Educational Projects
- SAMS - Self Assessment Modules
- PQI - Practice Quality Improvement

Life Long Learning SDEP's for Physicists

- 15 hours per year can come from SDEP's
 - Self Directed Educational Project
- Total LLL is 25 credits per year

[Self Assessment Modules]

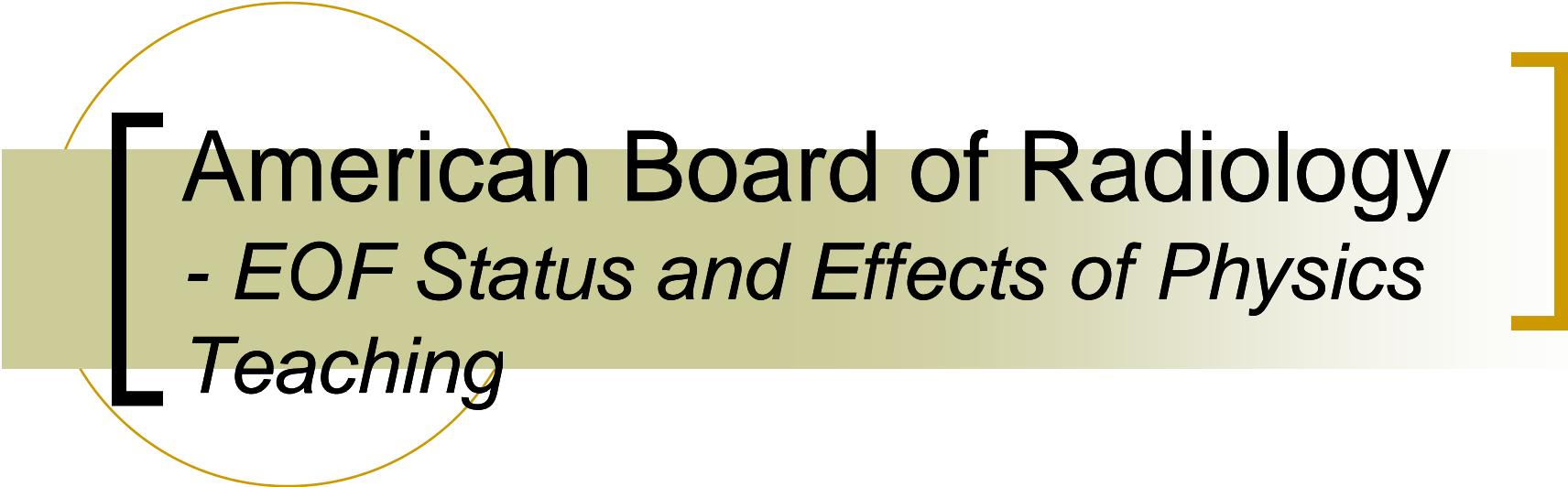
- 20 [2 per year] physicists
- It has been shown that people tend to choose LLL that they don't need
- SAMs can help you determine what LLL you actually need.



- Educational PQI projects are an excellent way to improve your educational abilities
- AAPM Efforts

[MOC Summary]

- Key process to insure ongoing competency
- The MOC process can help educators maintain and improve their skills



American Board of Radiology
- EOF Status and Effects of Physics Teaching

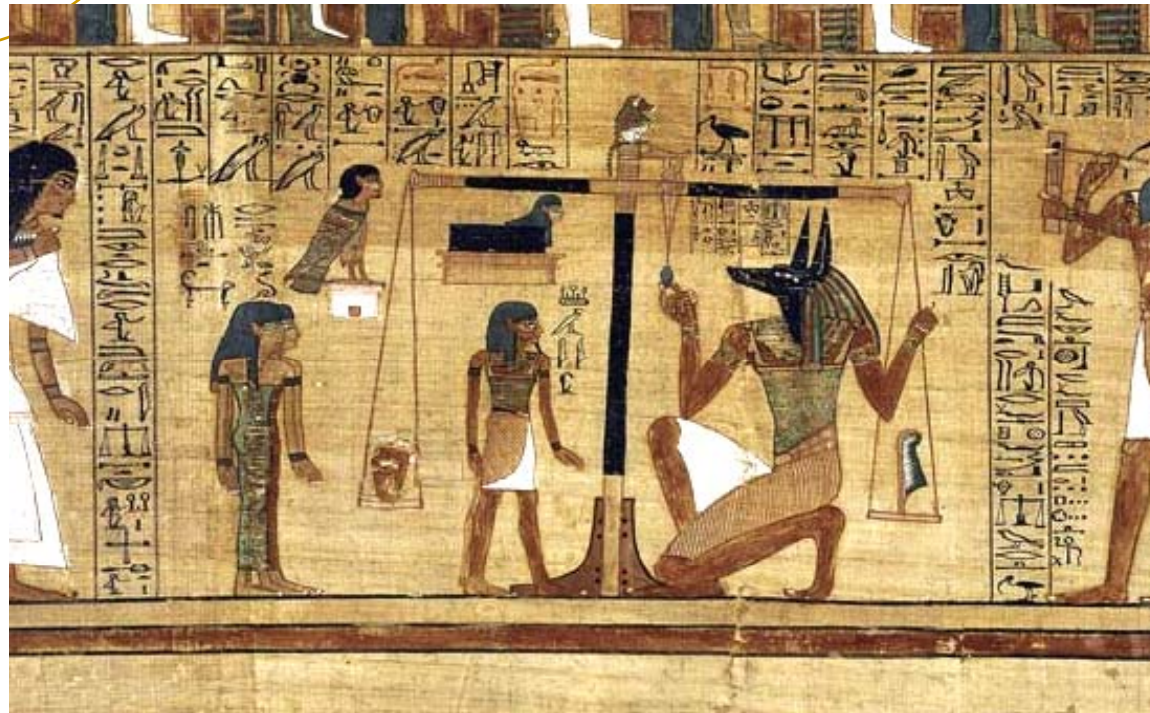
G. Donald Frey, Ph.D

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

[Objective]

- Understand the nature of the EOF so you can plan modifications in your resident teaching program

What the ABR Would Like to Be Able to Do?



[EOF – 2 Parts]

- Comprehensive Exam
 - At 36 months (End of 3rd year)
- Certifying Exam
 - 27 months after comprehensive
 - ~after residency
 - Can specialize

[EOF: Core Exam Categories]

- **Organ Systems* (10):**
 - Breast, Cardiac, Endocrine/Reproductive, Gastrointestinal, Musculoskeletal, Neuro, Pediatric, Thoracic, Urinary, Vascular
- **Modalities (6):**
 - Rad/fluoro, CT, MR, Nuclear/Molecular, US, Interventional
- **Fundamentals (2):**
 - Physics, patient safety

* Clinically relevant anatomy, pathophysiology, etc

EOF: Core Exam Blueprint

	Breast	Cardiac	GI	MSK	Neuro	Peds	Thorax	Repro / Endo	Urinary	Vascular	Q#
CT											45
IR											45
MR											45
NM/Molecular											45
Rad/Fluoro											45
US											45
Physics											90
Safety											45
Q#	45	45	45	45	45	45	45	45	45	45	45

minimum 45 questions per category

[EOF: Core Exam - Physics Content]

- Minimum of 90 questions
- Each item writing organ system-based category has a physicist-radiologist team
- Questions: “clinically relevant” physics
 - How can image quality be improved?
 - What is the source of this artifact?
 - How would you design this examination to minimize excessive radiation exposure?

EOF: Core Exam

Example Physics Question



- Repeat CT is requested to determine whether the CBD lesion is a tumor or a stone. What is the most appropriate maneuver?
 - a) Decrease kVp
 - b) Increase kVp
 - c) Decrease mAs
 - d) Increase mAs

[EOF: Core Exam - Scoring]

- Each organ system
 - Each method
 - Patient safety, physics
- Scored
pass/fail
- Assuming sufficient breadth of content for a confident pass/fail decision
 - Minimum 45 questions/category



Effects of EOF on Physics & Safety Training

[Physics at All Levels]

- Comprehensive Core Exam
 - Physics included and can be failed as a category
 - Safety included and can be failed as a category
- Certifying Exam
 - Physics and Safety Included
- MOC Exam
 - Physics and Safety Included

What is the ideal way to educate?



"He has been immortalized by the aphorism attributed to one of his former students, James A. Garfield: 'The ideal college is Mark Hopkins on one end of a log and a student on the other.'"

A Brief History of Education





SCRIPTORIUM MONK AT WORK. (From *Lacroix*.)







Essay on Modern Medical Education
The Lecture Room.





*Plus ça change, plus
c'est la même chose*



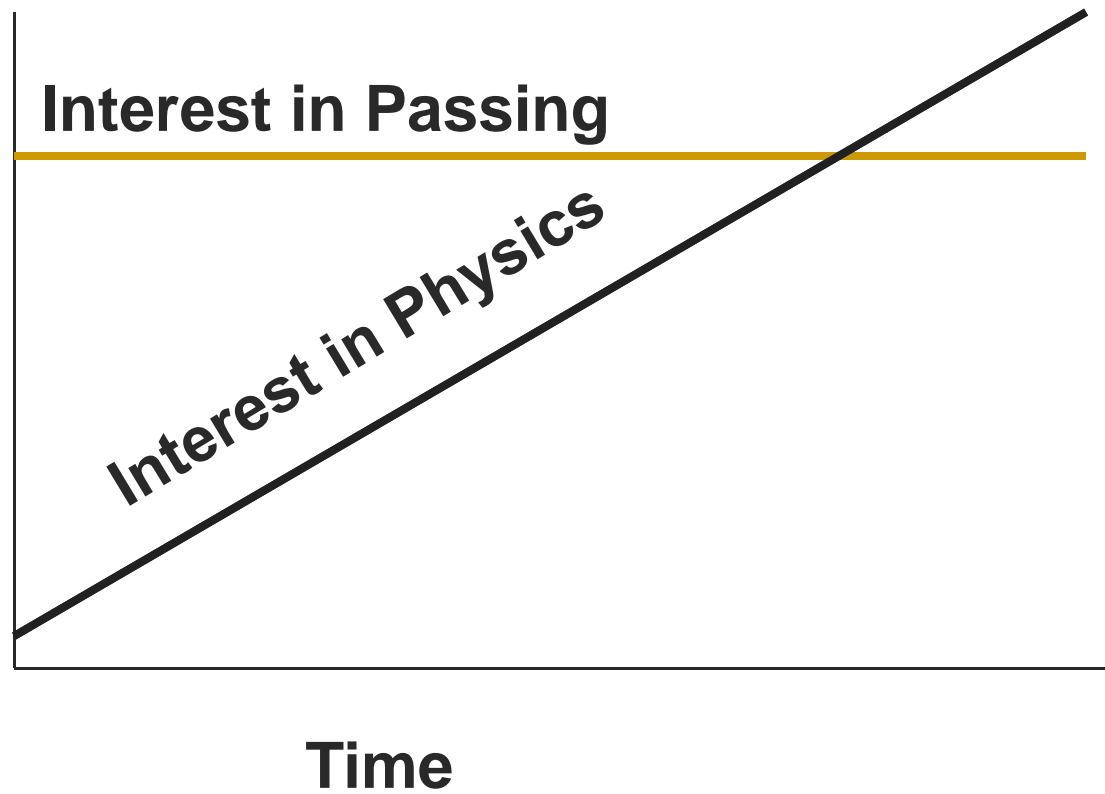
[Issues for Physicists]

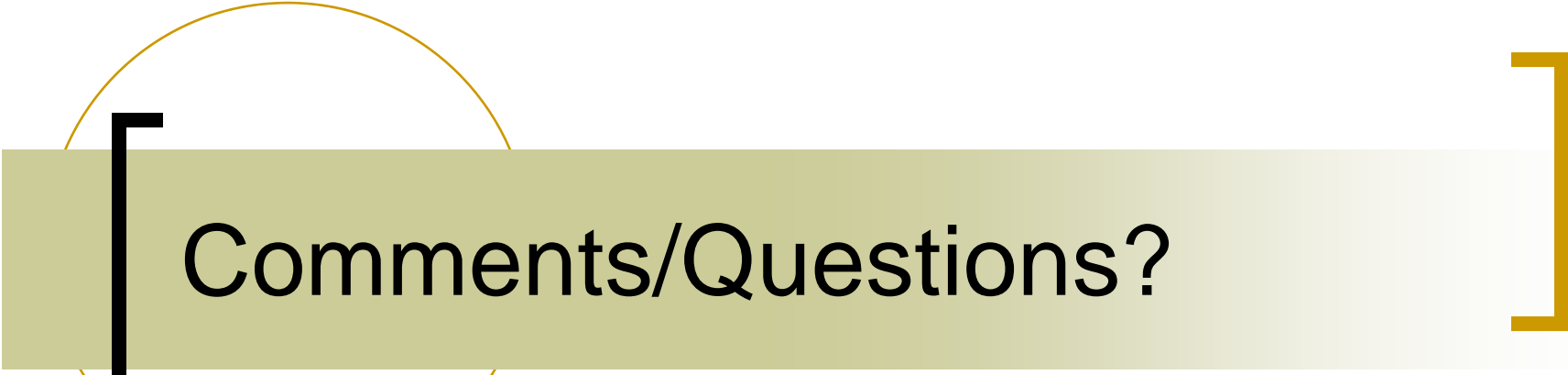
- Physics can no longer be taught to residents in the traditional binge/purge method
- Physics instruction will need to be continuous/ just in time and modality specific
- Physics instruction will need to be more sophisticated so instructors will need a strong clinical orientation

[Issues for Physicists]

- Physics education is not just a part of residency training
- Appropriate materials will be necessary for preparation for the Certifying Exam
- Appropriate materials will be necessary for preparation for the MOC Exam


[The Future?]





Comments/Questions?

This is a wonderful opportunity to change the way radiologists view and use physics. We need to rise to the occasion.



End



- Innovations in Education
- Electronic Medical Physics World