Preparing for the ABR Diagnostic Medical Physics Board Exams - Oral Exam S. Leng, L. Chen, Y. Shu, C. McCollough Department of Radiology Mayo Clinic, Rochester, MN

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Outline

- What is oral exam, why is it special?
- What are examined in oral exams?
- How should I prepare oral exam?
- How can I do well during the exam?
- Any practical tips?

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What is oral exam?

- The final step to be a board certified medical physicist.
- June 9-12, 2013; Louisville, KY



• Hotels are all close: pros and cons of booking a hotel right at exam site

http://www.theabr.org/

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How is oral exam performed?

- The oral examination is designed to test your knowledge and fitness to practice applied medical physics in the specified area(s).
- 5 examiners, 30 minutes each
- 5 questions in 5 categories
- Have to pass all 5 categories to get cerficate
- If one category failed, you are considered 'conditioned'

http://www.theabr.org/

Exam Results for Physicists | Medical Physics, Part 1 - General | Medical Physics, Part 1 - Clinical Vear Percent Number Vear Passed Taking | 2000 87 3 312 | 2008 88 4818 | 2009 77 469 | 2007 86 892 390 | 2007 79 428 | 2009 77 469 | 2009 88 4818 | 2009 77 469 | 2009 88 4818 | 2009 87 489 | 2010 77 506 | 2010 89 524 | Medical Physics, Part 2 - Diagnostic | Vear Percent Number Vear Passed Taking | 2008 69 20 200 89 489 | 2010 89 524 | Medical Physics Oral - All Exam Takers | 2009 70 40 2009 89 489 | 2010 89 524 | Medical Physics Oral - All Exam Takers | 2009 70 40 2009 89 489 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 524 | 2010 89 52 2010

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What are examined in oral exam?

- Radiation Protection and Patient Safety
- Patient-Related Measurements
- Image Acquisition, Processing and Display
- Calibration, Quality Control and Quality Assurance
- Equipment

What are examined in oral exam? • All imaging modalities in diagnostic medical physics - General X-ray: CR, DR - Fluoroscopy - Mammogram - CT - MRI - US - Informatics • No nuclear medicine questions • Emphasize on clinical experience What are examined? • Basic imaging principles - How are images generated? - Familiar with terminologies, basic anatomies

- Equipment components and functions
 - Familiar with sketched figures
- Quality Control
 - What tests need to be conducted
 - With what phantoms and equipment
 - What are the limitations of each measurement
- ACR accreditation

What are examined? • Image quality assessment - Spatial resolution, low contrast detectability, geometry accuracy, - Familiar with typical values • Image artifacts - Appearance, cause, correction • Safety: Patient and operator • Shielding and siting - ICRP 147; MRI siting

Do I need to read books?

- - <u>The Essential Physics of Medical Imaging</u>. Jerrold Bushberg, J. Anthony Seibert, Edwin Leidholdt, John Boone
 - Review of Radiological Physics. Walter Huda and Richard M.
 - Medical Imaging Physics. William R. Hendee and E. Russell Ritenour
 - Other books in each modality
- Reports
 - NCRP147
 - ACR accreditation: general requirement and phantom studies
 - AAPM reports

How should I prepare oral exam?

• Start early

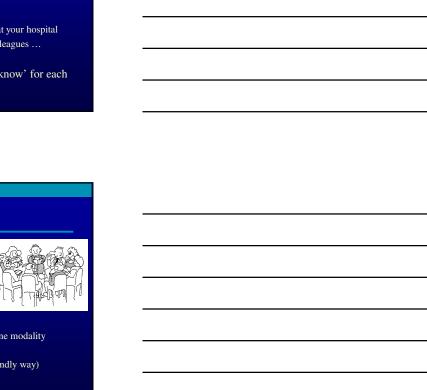
- Start early
 Talk to people who recently took the exams

 Rule#1

 Start Early!
 - How they prepared
 - What they found to be useful
- Fully utilize your resources
 - Physicist, technologist and radiologist at your hospital
 - Your classmates, your friends, your colleagues ...
 - Yahoo Med Phys group
- Prepare a list of 'things you need to know' for each imaging modality

Group Study

- Benefit of group study
 - Motivate and support each other
 - Learn faster
 - Fill in knowledge gaps
- Conduct group study effectively
 - Group members on the same page
 - Each in charge of a specific area, e.g. one modality
 - Meet regularly
 - Question/challenge each other (in a friendly way)
- Distance is not a problem



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Mock oral exam

- Get senior medical physicists to help
- Benefit of mock oral exam
 - Get familiar with oral exam format
 - Organize thoughts and answers during exam
 - Alleviate stress in real exam
 - Identify areas to focus and improve

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How can I do well during the exam?

- Answer questions correctly and effectively
 - Give short and precise answers
 - Be honest, don't make up an answer
 - Talk about related topics if you don't know the answer
 - No need to sweat out on a single specific question
 - No need to guess which category a question belongs to

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How can I do well during the exam?

- Interact with examiners
 - Experienced medical physicists
 - Different personal style of examiners
 - The purpose is to test your knowledge base and clinical experience, not to fail you. (They are helping you!)
 - Don't argue with examiners
 - Don't feel bad if you were stopped by the examiner, it could be a good thing
 - Examiners won't tell your performance
 - Final score is averaged among examiners

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How can I do well during the exam?

- Other things to consider
 - Be confident
 - Dress appropriately
 - There might be a half hour break the longest 30 min

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Summary

- Know your exam
- Start early
- Prepare a list of 'things you need to know'
- Group study and mock oral exam
- Answer questions precisely
- Interact with examiners
- Be confident, take it easy

Good Luck! Graph and the second of Radiology Second Luck! Second Luck

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