ABOUT ME

- Stewart J Becker, PhD DABR
  - Current Position:
    - NYU Langone Medical Center
      Assistant Professor / Medical Physicist
      Director, Medical Physics Residency Program (CAPEP)
  - Certification:
    - Passed ABR Boards - 2009 (1st try)
  - Education:
    - University of Wisconsin
      PhD Medical Physics, 2006

EXAM PASS RATE - 2013

50%
**PLAN OF ATTACK**
- Understand reason for exam and its mechanics
- Clarify necessary reading material and clinical experiences
- Learn how to effectively prepare for an oral exam
- Review example questions
- Review some final tips

**POINT OF THE EXAM**
- Make sure you are SAFE & COMPETENT
- Make sure you can practice INDEPENDENTLY
- This is your CAREER
  - not just a test

**WHY ORAL?!!!**
**ABR Subject Titles**

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

*These are kind of broad?*

**Break it Down**

- Radiation Protection and Patient Safety
  - Instantaneous vs. Annual Allowed Dose
  - Signage and reporting requirements
  - Shielding calc and wall/door composition
  - Implants and releasing patients
  - Emergency scenarios
- Equipment
  - All the parts of the Linac (Karzmark)
  - How x-rays are generated (therapy and diagnostic)
  - Types of detectors and how they work
BREAK IT DOWN

Calibration
- Know how to do monthly, Annual, and commissioning forward and backwards
- Understand how PDDs & output factors work
- What happens if calibration isn’t done correctly

Image Acquisition
- How images are created, how the detectors work
- Differences between Compton and Photoelectric and how they affect images
- Get used to looking at images and identifying anatomy, medical devices and the graticule

Patient-Related Measurements
- Exposure, KERMA, Dose, PDD, TAR/TMR
- Inhomogeneity corrections
- Bolus vs. Compensators
- Planning Sites, typical doses and contraints
- Wedges

THE WHY BEHIND THE LIST
**EXAMPLE #1: TG-51**

- Standard Technique
  - What is the point of measurement?
  - When is it used?
  - Where is dose usually defined for calibrations?

- How are patient treatments affected if the wrong SSD is used?
- If calibration is mistakenly assigned to another point?

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**HOW TO EXCEL AT ORAL EXAMS**

- Write up your own questions
- Setup a mock oral group
  - In person or using skype
  - Ask each other questions
  - Questions should be fully prepared ahead of time
  - Alternating answering same question
- Mimic exam scenarios
  - Must answer questions ALOUD
  - Limited Time
  - Pressure of an examiner looking at you
- Practice, Practice, Practice

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**HAVE A TECHNIQUE**

- Repeat the question
- Lay out a plan for the answer
  - Ex: Linac QA (safety, mechanical, radiation tests)
- Follow the plan
EXAMPLE #2: SHIELDING
You are testing the shielding of a vault. You are in a patient waiting area next to the side wall of the vault and you read 4mR/hr.

What do you do?

Find ways to help you relate materials to each other
Ex: How are Linac, Brachy, and CT QA related?
- Safety
- Mechanical
- Radiation

“Show your work”
Fall back on personal experience
- Think of what you do at your clinic

FINAL TIP

THE BOARDS ARE A MARATHON!