TEACHING RADIOLOGY RESIDENTS IN THE ERA OF THE NEW ABR EXAM

Edward L. Nickoloff, D.Sc.
Mahadevappa Mahesh, Ph.D.
Philip Heintz, Ph.D.
William Hendee, Ph.D.
Kalpana Kanal, Ph.D.
Mark Rzeszotarski, Ph.D.
Beth Schueler, Ph.D.

ORGANIZATION OF SESSION

• REVIEW OF CHANGES IN THE ABR PROCESS – E. Nickoloff
• POTENTIAL APPROACHES TO TEACHING RADIOLOGY PHYSICS – M. Rzeszotarski
• USEFUL RESOURCES TO TEACHING
  – AAPM DIAGNOSTIC RADIOLOGY CURRICULUM
  – AAPM / RSNA WEB BASED PHYSICS MODULES
  – K. Kanal
  – RADIOGRAPHERS AAPM/RSNA TUTORIALS FOR RESIDENTS – M. Mahesh
• QUESTION & ANSWER PERIOD

Article in JACR November 2010 pages 900 - 903

CHANGES TO THE ABR PROCESS

• BEGAN WITH NEW RESIDENTS ENROLLED JULY 2010
• FIRST NEW PART 1 … CORE EXAM … FIRST WEEK OCTOBER, 2013
• TWO (2) PARTS
  – CORE EXAM (AFTER 36 MONTHS RESIDENCY)
  – CERTIFICATION EXAM (15 MONTHS AFTER COMPLETION OF 4th YEAR RESIDENCY)

NEW ABR CORE EXAM

• MUST COMPLETE 3 YEARS OF RADIOLOGY RESIDENCY TRAINING TO QUALIFY TO TAKE
• COVERS BOTH BASICS & INTERMEDIATE DIAGNOSTIC RADIOLOGY
• THE PHYSICS MUST BE CLINICALLY REVELANT
  – IMAGE QUALITY ISSUES
  – IMAGE ARTIFACTS
  – RADIATION SAFETY
• HEAVILY IMAGED BASED
COMPOSITION OF CORE EXAM

10 ORGAN SYSTEMS ON CORE EXAM

- BREAST
- CARDIAC
- ENDOCRINE / REPROD.
- GI
- MSK
- NEURO
- PEDIATRIC
- THORACIC
- URINARY
- VASCULAR

6 MODALITIES + FUNDAMENTALS

- MODALITIES
  - RADIOGRAPHY / FLUOROSCOPY (R / F)
  - COMPUTED TOMOGRAPHY (CT)
  - MAGNETIC RESONANCE IMAGING (MRI)
  - NUCL. MED. + MOLECULAR (NM)
  - ULTRASOUND (US)
  - INTERVENTIONAL (IR)

- FUNDAMENTALS
  - PHYSICS
  - SAFETY
MORE ABOUT CORE EXAM

• CORE EXAM WILL BE 600 QUESTIONS GIVEN OVER 1.5 DAYS
• MUST PASS ALL 18 CATEGORIES TO COMPLETE (10 ORGAN + 6 MODALITIES + 2 FUNDAMENTALS)
  – CONDITION = < 5 CATEGORIES FAILED
  – FAIL > 5 CATEGORIES FAILED (TAKE AGAIN)
• CORE EXAM GIVE EVERY 6 MONTHS
• MUST COMPLETE WITHIN 5 YEARS

NEW ABR CERTIFYING EXAM

• GIVEN 15 MONTHS AFTER COMPLETION OF 4th YEAR OF RADIOLOGY RESIDENCY TRAINING
• COMPUTER EXAM .... NOT ORAL
• AGAIN HEAVILY IMAGE AND PRACTICE BASED
  – NON-INTERPRETIVE SKILLS
  – ESSENTIAL OF RADIOLOGY
  – 3 MODULES OF CHOICE (FROM 10 CLINICAL AREAS OF PRACTICE .... GENERAL + SUB-SPECIALTIES)
• 300 QUESTIONS AND 5 HOURS TO COMPLETE

SUMMARY OF CHANGES

• MORE INFORMATION FOUND ON WEB www.theabr.org under “EOF”
• TEACHING OF RADIOLOGY PHYSICS IS STRETCHED OVER 3 YEARS
• TEACHING SHOULD BE MORE IMAGED BASED AND CLINICALLY ORIENTED
• MORE RESOURCES ARE AVAILABLE & SHOULD BE USED
• TEACHING OF RADIOLOGY PHYSICS TO RESIDENTS SHOULD BE MODIFIED !!