AAPM 2005: Education Council Symposium on Physics Residency Programs

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Commission on Medical Physics Education Programs

Clinical Residency Education Programs

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Chair, CAMPEP Residency Education Program Review Committee

Accreditation – Why?

• Standards – Our profession must come in line with Physician training standards.
• Established Minimum Levels of Training
• Funding CMS provides at least 0.25 FTE funding per resident back to the institution for approved programs.

Benefits to Resident

• Has received complete training rather than performing cheaply as a junior physicist or as a “research-clinical” post-doc
• Marketable
• Certification:
  - ABMP exam with no other prerequisites
  - ABR similar acceptance?
  - First time pass rate for graduates of CAMPEP-accredited residency programs is 95%.
  - The overall ABR physics pass rate in recent years is 53%, including first- through third-time takers.
Residency Evaluation

- CAMPEP Board of Directors:
  - Sponsored by:
    - AAPM
    - ACR
    - ACMP

  CAMPEP’s Residency Education Program Review Committee

Preliminary Requirements for Program Evaluation

- Official Request from Administration, Medical Director, and $5,000
- Hospital Accreditation
- Self-Study (essentially Policy/Procedures)
- Demonstration of Stability
  - It is recommended that at least one resident has graduated before applying

CAMPEP Residency Education Program Review Committee (REPRC)

Eric E. Klein, M.S. (Chair)
John A. Antoluk, Ph.D.
James F. Dempsey, Ph.D.
Vikram Dogra, M.D.
Peter B. Dunscombe, Ph.D.
Bruce J. Gerbi, Ph.D. (Vice Chair for Therapy)
John D. Hazle, Ph.D.
Marlene McKetty, Ph.D.
Michael D. Mills, Ph.D.
Janelle A. Molloy, Ph.D.
Arno J. Mundt, M.D.
Robert A. Pooley, Ph.D.
Michael V. Yester, Ph.D. (Vice Chair Imaging Physics)

Accreditation: Definition & Scope

- Compliance with standards of training
- Overall quality of the program
- Number and competence of the teaching staff
- Teaching loads
- Rigor and breadth of instructional offerings
- Adequacy of facilities: Machinery and Procedures
- Supporting personnel
- Aptitude of students
- Performance of the graduates
Accreditation: Evaluation Process

Steps
- Preparation of Self-Study (guidelines and template found on campep.org site)
- REPRC assigns mentor to assist
- REPRC review's Self-Study
- Director's response to REPRC review
- Site visit by REPRC members
- REPRC evaluation of the site visit report
- Approval/recommendations by the CAMPEP Board

Self-Study - Training Requirements
- Requirements for Program Completion (24 months of training)
- Training Essentials - Design and Content
- Program Length and Sample Training Plan
- Training Administration
- Essentials of Clinical Training
- Method of Educational Training (including education for non-Medical Physics graduates)
- Optional Research Training
- Examinations/Evaluations
- Completion Certificate

Training Essentials - Design and Content
- Logical Clinical Rotations
- Training Objectives for each Rotation
- Evaluation Methods
- Assigned mentor's understanding
- Corrective Actions if competency not met
Residents
• Admissions
• Recruitment Efforts
• Number in Program
• Evaluation of Resident Progress
• New Resident Orientation
• Space and Resident Resources

Funding
• Funding Sources
  - Hospital
  - CMS: CMS (formally HCFA) offers reimbursement to facilities with accredited programs. This falls under the paramedical education category, whereby portions of direct cost (salary & benefits) can be reimbursed. - 42 CFR Part 412.85
  - Grants
    • AAPM/Varian
    • ASTRO - for Startup Programs

Admissions
• Application Packet
• Medical Physics or Related Science
• Some take M.S., most only Ph.D.
• Transcripts
• References
• Application Evaluation and Interview
  Process clearly documented

Program Administration
• Structure within Hospital/Medical Center
• Role of Program Director
• Committees and Meetings
• Records Available for Review
Accreditation: Evaluation Process

- Site Visit
  - Examine specific areas of the program identified in the Self-Study Review
  - Direct interaction with the faculty, administration and residents
  - Observe adequacy of the facilities
  - Obtain additional data, if needed

Action Following Evaluation

- Accreditation
- Deferral
- Accreditation Withheld

Maintenance of Accreditation: Reevaluation – Every 5 Years

- Self-Study
- Action Following a Reevaluation
  - Accreditation Continued
  - Probation
  - Accreditation Withdrawn

Accredited Medical Physics Residency Programs

Therapy
- Cross Cancer Institute - University of Alberta
- University of Chicago Medical Center
- University of Minnesota Medical School
- Mayo Clinic
- McGill University
- University of Florida
- University of Louisville School of Medicine
- University of Wisconsin
- Vanderbilt University Medical Center
- Washington University School of Medicine

Imaging
- The University of Texas M. D. Anderson Cancer Center
- Under Review: U-Ca/Irvine, University of Toronto, Tom Baker Cancer Centre
- Imaging: Cross Cancer Institute