

addition, several long block physician graduates have developed and managed outcome measures within their postresidency practice.

Conclusion

The DOM intervention empowers practice team members to critically examine the outcomes they are measured by, and use these choices to guide improvement work. It also teaches improvement practice related to outcomes measurement and prepares graduates to use these skills in practice.

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New Ideas

Adapting ACGME-Accredited Training to Meet Changing Demands of the Workforce: The NuRad Pathway

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Setting and Problem

Nuclear medicine (NM) faces significant challenges as a specialty. Fewer physicians are choosing to enter NM, and employment prospects for graduates are increasingly limited. Additional challenges include declining reimbursement, “turf” battles with specialties that have assumed some of the areas previously the domain of NM, and difficulties with implementation of translational research. Rapidly proliferating technology and hybrid imaging are significantly changing the scope of knowledge, requiring greater understanding of 3-dimensional anatomy, cross-sectional imaging techniques, physics, and clinical applications. NM residency alone may not be adequate preparation, and NM programs are having difficulty attracting top candidates.

In addition to being a core specialty, NM also is practiced as a subspecialty by diagnostic radiologists, some of whom, particularly in private practice, are the primary imaging specialists for the patient population needing NM. Diagnostic radiology (DR) residency requires 700 hours of focused NM training, but this may not be adequate to prepare a general radiologist for the scope of today’s NM

practice as the array of clinically relevant nuclear and molecular imaging and therapeutic agents continues to expand. Board-certified diagnostic radiologists can earn American Board of Nuclear Medicine (ABNM) eligibility by completing an additional year of NM training, but at that point of their career they do not have any remaining eligible years for graduate medical education funding. Alternatively, since July 2010 DR residents have been allowed up to 16 months to subspecialize during their residency.

Intervention

To attract the highest-quality residents and increase the number of diagnostic radiologists optimally trained to provide quality NM care, the University of Arkansas for Medical Sciences proposed a new “pathway of the future.” A categorical position—“NuRad”—was created to provide integrated DR/NM training within a 5-year curriculum. A clinical year is followed by 32 months of DR and 16 months of NM training. This includes 4 months in DR rotations as a postgraduate year (PGY)-2, PGY-3, and PGY-4, and 12 months in NM rotations as a PGY-5. Our program’s call system provides continuous application of DR knowledge and skills across all modalities and subspecialties, so participation in call throughout the final year of training

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TABLE UAMS PROGRAMS IN 2013 NRMP MAIN RESIDENCY MATCH

	Diagnostic Radiology	NuRad	Nuclear Medicine
Total applications received at UAMS	355	18	19
Total candidates invited to interview at UAMS	127	7	0
Positions offered at UAMS	7	1	1
Positions filled at UAMS	7	1	0
Average USMLE I score of applicants to UAMS	230	234	210
Average USMLE II score of applicants to UAMS	237	236	216

Abbreviations: UAMS, University of Arkansas for Medical Sciences; NRMP, National Resident Matching Program; USMLE, United States Medical Licensing Examination.

will assure the resident maintains competence in DR while focused on NM training.

We requested and received approval from our graduate medical education committee to convert 1 NM full-time equivalent (FTE) to a DR FTE. Because this proposal was budget-neutral and the total number of FTEs designated to the Department of Radiology (which houses both programs) were unchanged, the department and sponsoring institution unequivocally supported the shift of funding.

We registered our traditional DR, NM, and the NuRad residency positions in the 2013 National Resident Matching Program (NRMP) as separate listings. The NuRad position was of interest to 18 of 355 DR applicants. Faculty from NM and DR reviewed their ERAS packets and invited 7 to interview. Candidates who by consensus were felt to be well-qualified for both programs were ranked for NuRad. In contrast, we received 19 applications for our traditional NM residency position. After review of their ERAS packets, we did not invite any of these applicants to interview and the position went unfilled (TABLE).

Through the NuRad program, we aim to better prepare physicians for the contemporary practice of DR and NM, to prepare them to provide excellent patient care and clinical research in the era of hybrid molecular imaging by offering training that is in full compliance with Accreditation Council for Graduate Medical Education program requirements for NM and DR and leads to dual American Board of Radiology (ABR) and ABNM board certification.

Outcomes to Date

We matched a highly ranked applicant who entered the pathway July 1, 2013. After 5 years, this resident will be

essentially fellowship-trained, with extensive PET experience, and eligible for ABR and ABNM board certification as well as the CAQ (subspecialty certification) in Nuclear Radiology.

We were the first to offer and fill a combined DR/NM training position through the match. Our initial experience confirms that NuRad may be more attractive to highly qualified applicants, especially for smaller, regional programs such as ours.

It may never be possible to measure NuRad's impact on the radiology workforce, but this approach preserves graduate medical education funding for NM and molecular imaging, thereby helping ensure the future of those disciplines.

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