## **ARTICLE IN PRESS**

# **Radiology Resident Education**

# The New Interventional Radiology Pathways: Options for Implementation

Michael Recht, MD, J. Mark McKinney, MD, Anthony M. Alleman, MD, MPH, Lisa H. Lowe, MD, James B. Spies, MD

The new interventional radiology (IR) pathways have generated much discussion with articles and editorials pointing out perceived advantages and disadvantages compared to the current pathways. To briefly review, under the new system, there are three pathways to enter IR: the integrated (INT) IR residency, the independent (IND) IR residency, and the early specialization in interventional radiology (ESIR) program. The pathways have been designed to provide maximum flexibility to programs for implementation and to radiology residents for planning their subspecialty training. As a result, there are many potential permutations for these training programs, and understanding the variety of options can be a challenge at first. We offer three potential solutions, based on the different circumstances or requirements a department might face. The first two solutions involve integrated programs created through newly funded and converted diagnostic radiology slots, respectively. The third involves establishing ESIR and IND programs only. Hopefully, the examples provided will be useful for those currently planning for the future of their IR training programs.

Key Words: Interventional radiology; integrated; independent; ESIR.

© 2016 The Association of University Radiologists. Published by Elsevier Inc. All rights reserved.

In 2012, the American Board of Medical Specialties approved a new certificate in interventional radiology (IR) and diagnostic radiology (DR), recognizing IR as a primary specialty. This action was the result of many years of discussion and consultation, and was felt to be necessary because of the increasing importance and prevalence of nonprocedural care in IR, as well as the increasing complexity of the practice of IR (1). In response to this approval, the Accreditation Council for Graduate Medical Education (ACGME) approved new pathways for obtaining certification in IR in 2013. These new IR pathways have generated much discussion with articles and editorials (1,2) pointing out perceived advantages and disadvantages compared to the current pathways. Although these discussions have been beneficial, they are no longer relevant as the decision to move ahead with the pathways has been made. The first class for the integrated IR residency will enter residency training in July 2017 and the traditional 1-year IR

### Acad Radiol 2016; ■:■■-■■

Department of Radiology, NYU Langone Medical Center, 660 First Ave., New York, NY 10016 (M.R.); Department of Radiology, Mayo Clinic, Jacksonville, Florida (J.M.M.); Department of Radiological Sciences, University of Oklahoma College of Medicine, Oklahoma City, Oklahoma (A.M.A.); Children's Mercy Hospital and Clinics, Kansas City, Missouri (L.H.L.); Department of Radiology, CG 201, Medstar Georgetown University Hospital, Washington, DC (J.B.P.). Received February 15, 2016; revised March 24, 2016; accepted March 25, 2016. The authors are members of the SCARD Taskforce on the New IR Pathways. Address correspondence to: M.R. e-mail: Michael.recht@nyumc.org

 $\ensuremath{@}$  2016 The Association of University Radiologists. Published by Elsevier Inc. All rights reserved.

http://dx.doi.org/10.1016/j.acra.2016.03.004

fellowships will end on June 30, 2020. Attention should now be focused on implementation strategies.

To briefly review, under the new system, there are three pathways to enter IR. The first is the integrated IR residency (INT). Medical students will apply directly for admission into this pathway consisting of a Post Graduate Year (PGY1) clinical year, followed by 3 years (PGY2-4) of a DR residency and 2 years (PGY5 and 6) of dedicated IR training. The second path to enter IR is the independent IR residency (IND), which is performed after completion of a 4-year DR residency. The IND residency, which comprised training years PGY6 and PGY7, can be performed at the same institution as the DR residency or at a different institution. The third pathway to enter IR is the early specialization in interventional radiology (ESIR) program. In the ESIR program, residents in a 4-year DR program need to complete 12 IR or IR-related training rotations and perform 500 IR procedures during their DR residency, the majority of which will occur in the PGY5 year. The ESIR pathway will allow residents to get credit for the first year of an IND residency, so that they may enter year 2 of an IND program at the same institution as their DR residency or at a different institution.

During a discussion on the new IR pathways at the 2015 Annual Meeting of the Society of Chairs of Academic Radiology Departments (SCARD) and in subsequent conversations among the members of the SCARD Taskforce on the New IR Pathways, several concerns were raised, and these are listed below:

- 1. The timing of the elimination of the current 1-year IR fellowship may result in a gap in trainees graduating in 2021. Under the current plan, the existing 1-year IR fellowship will end in June 2020, whereas the first INT trainees matching from medical school will not enter their PGY6 year (second year of dedicated IR training) until July 2021. This has led to worries that there will not be enough graduating IRs in 2021 and 2022 to meet practice needs. There is also concern that in the long term, the number of graduating IR trainees will decrease because the new pathways require 2 years of dedicated IR training compared to the current 1-year IR fellowships.
- 2. There may also be an insufficient number of candidates from DR or ESIR programs to fill positions for the independent residency in 2021 and 2022, when there is unlikely to be a full complement of IR candidates in the integrated pathway. This is because of the lead time necessary for many programs to complete their IR integrated residency applications and to receive accreditation.
- 3. Once steady state in the number of integrated programs has been achieved in the early 2020s, there may be fewer independent residency slots than necessary to meet the demand from residents of DR programs or DR and ESIR programs without an integrated or independent IR residency.
- 4. The INT residency is potentially disadvantageous to residents in IR who wish to change to DR during their training. This disadvantage results from current ACGME rules that restrict the ability of trainees to transfer in or out of INT and DR programs unless they stay at the same institution.
- 5. The costs associated with adding training positions are a potential barrier to establishing an INT residency.
- 6. Although DR and IR workforce needs are beyond the scope of this article, the potential reduction in DR residency slots (created by converting DR to IR positions) may result in too few DR trainees to meet the needs of individual programs or enough graduates to meet future workforce needs.
- 7. The potential effects of the concerns listed earlier are magnified in small to midsized DR programs.

We believe that each of these concerns can be significantly minimized, if not completely eliminated, by careful planning of the implementation of the three new pathways. There are many potential permutations for these training programs, but the SCARD Taskforce on the New IR Pathways would like to propose three potential solutions, based on the different circumstances or requirements a department might face. The first two solutions involve integrated programs created through newly funded and converted DR slots, respectively. The third involves establishing ESIR and IND programs only.

# OPTION ONE: CREATION OF AN INT PROGRAM THROUGH NEWLY FUNDED POSITIONS

This is the most straightforward implementation, but does require either the institution or the department to fund new

TABLE 1. Creation of an INT Program Through Newly Funded Positions

Year	Residents in DR Training	Residents in INT training
PGY2	6	_
PGY3	6	-
PGY4	6	-
PGY5	4	2
PGY6	_	2

DR, diagnostic radiology; INT, integrated IR; IR, interventional radiology.

The table illustrates a residency program with four DR residents and two INT residents per year. The number of residents in each program is listed by year. In this example, the program gains an additional six DR positions during PG years 2–4 from the additional INT positions.

training slots, something that may be difficult to achieve. In this setting, the program creates an INT residency beginning at PGY2. The program would gain a DR resident position for PGY 2–4 for each of the INT positions it adds, as the INT residents will have the same rotation schedule as the regular diagnostic residents for those years. This approach helps reduce call responsibility for all the residents taking diagnostic call and assists the program by providing additional resident staffing of clinical services. For each newly funded INT position, the net effect on the total trainee complement is increased by three residents, one PGY 2–4 resident for each INT position added. The distribution of all residents over the duration of the INT residency is presented in Table 1.

To ensure maximum flexibility, this type of program might also create an IND residency and an ESIR program. This is particularly useful for a program with a large interventional fellowship. For a program with 8 or 10 fellows, it is unlikely that 5 IR integrated positions can be funded. An alternative is to create two INT positions, which eventually will occupy four interventional PGY5 or 6 positions. These can be supplemented by IND positions for those graduating from conventional DR programs or for those who have completed a DR program that included an ESIR year. This provides the program with the opportunity to recruit strong candidates from other programs, diversifying its trainee group. In addition, the ability to accommodate ESIR graduates in excess of a program's own ESIR slots creates an avenue of training for individuals from DR programs with an ESIR pathway, but no other IR training

One potential consequence of this option, which is beyond the scope of this article to discuss in detail, is the effect these additional slots would have on the overall balance between supply and demand of, and for, graduating DR and IR residents in light of the current and projected future job market.

### Download English Version:

# https://daneshyari.com/en/article/6242580

Download Persian Version:

https://daneshyari.com/article/6242580

Daneshyari.com