ORIGINAL ARTICLE

A Guide to the Interventional Radiology Residency Program Requirements

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Abstract

The program requirements for the new Interventional Radiology (IR) Residency were approved by the ACGME in September 2014. Soon, training institutions will be able to apply for accreditation and begin enrolling residents. The IR program requirements are long (44 pages) and a bit complex. In addition, some concepts in the program requirements, such as options for integrated or independent formats, may be unfamiliar to the radiology community. In this article, we summarize key concepts and explain important provisions in the IR program requirements. We hope to provide the reader with a firm foundation for understanding the full program requirement document and the application process.

Key Words: Interventional radiology, education and training

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INTRODUCTION

On September 28th, 2014, the Board of Directors of the ACGME approved the program requirements for a new residency program in interventional radiology (IR) [1] and ushered in a new era of education and training in IR. The rationale for this change is explained in 2 excellent articles by Siragusa et al [2] and Kaufman [3]. In brief, the rationale is 2-fold.

First, the procedural domain of IR has increased dramatically in the 20 years since the initiation of the 1-year vascular and interventional radiology (VIR) fellowship. The diversity and sophistication of IR procedures has expanded; acquiring adequate technical expertise in a 1-year training period is no longer possible. Second, and perhaps more important, over this same period, clinical care has become an integral and essential part of interventional care. Today, interventional radiologists are clinicians who perform inpatient consultations, run outpatient clinics, admit patients, and provide focused clinical care with longitudinal follow-up.

The American Board of Medical Specialties (ABMS) acknowledged these evolutionary changes in the practice of IR; and in February 2012, ABMS established IR as a unique specialty in medicine. IR practitioners were noted to have unique expertise in 3 areas that mark the domain of IR: diagnostic imaging, image-guided procedures, and patient care. Accordingly, ACGME will offer accreditation in a new residency designed to provide training in diagnostic imaging, IR techniques, and clinical care.

The common goal of ABMS and ACGME is to facilitate optimal patient care. The new IR program requirements were written to meet this goal, while providing institutions and trainees with considerable flexibility. For this reason, a variety of pathways into IR training and a variety of options for providing the prescribed training experience are permitted. Some options, such as integrated and independent residency formats, have been used in surgical specialties but have not been part of the radiology lexicon. In the current article, the Residency Review Committee (RRC) summarizes core concepts that are embedded in the IR program requirements and explains key provisions, to assist those wishing to start an IR residency.

PARTICIPATION IN THE PROCESS

At the outset, we acknowledge the important role that the radiology community has played in shaping the new IR training program requirements. Early in the process, the

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Society of Interventional Radiology (SIR) assembled a task force composed of leaders of the Association of Program Directors in Radiology (APDR), the Association of Program Directors in Interventional Radiology (APDIR), the Society of Chairs of Academic Radiology Departments and the ACR to advise the RRC, as the process of developing the IR residency program requirements took shape. In addition, once the RRC completed the program requirements, the medical community scrutinized the document during a 45-day "open comment period" and submitted numerous comments and suggestions.

Thoughtful concerns regarding the new IR residency were delineated in an editorial published in *Radiology* [4]. All this input was carefully considered by the RRC, and many suggestions were incorporated into the final version of the program requirements. Chief among these is the provision enabling diagnostic radiology (DR) programs to apply for early specialization in IR (ESIR) status. The ESIR designation, as explained in detail later, allows DR programs to participate in the process of IR training by standardizing the residency experience that would qualify a DR graduate for advanced placement in an independent IR program. The RRC is very appreciative of the time and effort that the radiology community has put into working on this project.

KEY CONCEPTS

Interventional Radiology Residency Framework

The new IR residency is a stand-alone program, separate from the DR residency. The component parts of training include diagnostic imaging, image-guided procedural technique, and clinical care. The residency requires a minimum of 5 years of training: 3 years are focused on diagnostic imaging, and 2 years are focused on image-guided procedural technique and clinical care.

The IR training can be provided in either of 2 residency formats: integrated and independent. The *integrated* IR residency program is 5 years in length and provides training in both DR and IR. All training is under the supervision of the IR program director. Upon completion of the residency, training in both DR and IR is verified by the IR program director. Candidates are matched with the residency from medical school and begin the residency after completing a clinical internship year.

The *independent* IR residency program is 2 years in length and provides training in IR only. Candidates must have successfully completed a DR residency to be eligible for entry into an independent IR residency. An important provision within the independent residency is the possibility for advanced entry to the postgraduate year (PGY)-7 level. This option is available to candidates who have graduated from a DR residency with an approved ESIR curriculum and have been provided with sufficient IR training during the DR residency to qualify for advanced entry. Programs wishing to provide DR residents with a training regimen sufficient to allow entry into the second year of an independent program must apply to the RRC for ESIR designation.

The concept of allowing 2 residency formats (integrated and independent) is applied within several other specialties: vascular surgery, thoracic surgery, and plastic surgery. This approach provides flexibility for programs and trainees while accomplishing all of the training objectives required in the new residency. Upon successful completion of an IR residency, whether integrated or independent, residents will have attained competency in both DR and IR, as specified in the IR program requirements. These basic training pathways are summarized in Table 1.

More on ESIR Training

The rationale for ESIR training deserves separate mention. With the advent of the ABR core examination occurring at the end of the 3rd year of residency, the opportunity arose for concentrated subspecialty training in the fourth year of DR training [5]. In recognition of this new development, the RRC introduced a provision for advanced entry into an independent IR residency after ESIR training. To ensure that training in the DR PGY-5 program is sufficient to qualify for entry into the second year of independent IR residency, the RRC will approve

Table 1. Postgraduate training in interventional radiology

Integrated IR residency	
PGY-1:	Clinical internship
PGY-2—PGY-6:	IR residency
Independent IR residency	
PGY-1:	Clinical internship
PGY 2—PGY-5:	DR residency
PGY 6 and PGY-7:	IR Residency
Or	
PGY 1:	Clinical internship
PGY-2—PGY-5:	DR residency with ESIR training
PGY-7:	IR residency

Note: DR = diagnostic radiology; ESIR = early specialization in interventional radiology; IR = interventional radiology; PGY = postgraduate year.