

**Should 12 Months of Training Be Required
Before Diagnostic Radiology Residents
Take Independent Call?**

A Survey of the Association of Program Directors in Radiology

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Summary: Based on 147 responses to a survey of 303 APDR members (48.5% response rate), 66.1% of respondents are opposed to the RRC's proposed change that would require residents to complete 12 months of training before assuming independent on-call responsibilities, 21.1% are in favor of it, and 12.8% are neutral.

The Residency Review Committee (RRC) of the Accreditation Council for Graduate Medical Education (ACGME) has recently proposed major changes to the program requirements for resident education in diagnostic radiology. One of the changes concerns the on-call responsibilities of residents in their first year of diagnostic radiology training. The proposed change is worded as follows: "The resident must have a minimum of 12 months of training in diagnostic radiology prior to independent on-call responsibilities. Independent call is defined as making an interpretation available to patient care providers prior to review of the examination by faculty or a senior resident."

To solicit input from the membership of the Association of Program Directors in Radiology (APDR) prior to the ACGME's December 13, 2006 deadline for comments, a link to a standardized 12-question survey on SurveyMonkey.com was sent electronically to the 303-member roster of the APDR in October of 2006. This was followed by two reminders to complete the survey. A total of 147 respondents completed the survey, for a response rate of 48.5%. Following is a summary of the survey results.

The programs of survey respondents range in size from 8 to 70 trainees, with a mean program size of 25.9 residents. The on-call responsibilities of first-year radiology

residents differ substantially from program to program. In 8.2% of programs, first-year residents bear no on-call responsibilities. In 3% of programs, residents take call throughout the 12 months of the first year. Most commonly, first-year residents take call during between 4 and 6 months of their first year of training (69.4%). In 11.9% of programs, residents take call between 1 and 3 months of the year, while on-call duties extend over 7 to 10 months of the first year in 7.5% of programs. Frequency of on call duties also varies substantially from program to program. In 54.5% of programs, first-year call frequency ranges between an average of every 4 and 7 days. In 32.7% of programs, residents are on call between every 8 and 14 days. In 5.9% of programs, residents take call less frequently than once every 14 days.

Respondents were asked to describe their policies for supervision of first-year residents on call. Because some respondents offered more than one answer, only the total numbers of responses are reported here. At 114 programs, first-year residents taking call are supervised or backed up by attending radiologists. At 65 programs, senior residents provide supervision and back up. At 7 programs, fellows play this role. A total of 50 respondents stated that first-year residents' performance is monitored when they go over their after-hours cases with attending radiologists the next morning.

Respondents cited a number of methods for determining whether first-year residents are adequately prepared to take call. These included the use of written or oral examinations (75 respondents) and faculty evaluations (71). Some programs used multiple different methods for preparing first-year residents for on-call duties. A total of 113 respondents reported that they employ some form of preparation course, most commonly an on-call specific lecture series or conferences designed for this purpose. Another common approach is to require first-year residents to complete an established group of core rotations (including such specialties as chest, musculoskeletal, and neuroimaging) prior to commencing on-call duties (71). A total of 55 respondents stated that they use some form of "buddy call," in which first-year residents shadow more senior residents before beginning independent on-call duties.

In considering the likely effect of the proposed rule change on their program's educational program and clinical service, 68 respondents stated that it would have no consequences for their clinical service; 53 stated that it would undermine the education of

first-year residents by depriving them of autonomy, responsibility, or motivation to study; 45 stated that it would increase the call burden on more senior residents; 34 stated that it would have no effect on resident education; 20 stated that it would increase the intensity of on-call duties for residents at more advanced stages of training; 18 said it would reduce study time for the board examination in the fourth year of radiology residency; 17 said it would reduce their coverage of clinical services by more senior residents who would be off the next day post call more frequently; 11 said it would reduce the number of daily conferences more senior residents could attend for the same reason; 10 stated it would create extra work to redesign their program's on-call system; 9 said they would be forced to restrict elective time, attendance at the Armed Forces Institute of Pathology (AFIP), and outside rotations by more senior residents; and 8 felt that it would improve the quality of their clinical service.

Additional concerns voiced by four or fewer respondents included: the change would be difficult for upper-level residents (7); the impact on the morale of upper-level residents and attending radiologists would be adverse (4); the program would need to contract for after-hours services by another radiology group (4); the proposed change would harm clinical service (3); upper-level residents would not be able to complete their required rotations due to the increase in their on-call frequency; the program would be forced to reduce the number of hospitals it covers (2); and academic pursuits would be adversely affected (2).

When asked whether they supported or opposed the proposed change in program requirements, 21.1% of respondents stated that they supported the change, 66.1% stated that they were opposed to it, and 12.8% stated that they were neutral.

Grounds for opposition to the proposed change included: beginning to take call is always challenging at first, regardless when it occurs (21.3%); the RRC proposal is not evidence based (15.7%); the proposed change would impose an increased burden on other residents and faculty members (13.9%); the current system functions well (10.2%); increasing first-year on-call duties would undermine recruitment (8.3%); programs should improve preparation for on-call duties rather than changing their timing (6.5%); such a change would necessitate violation of the ACGME's duty hours regulations (6.5%); other medical specialties do not impose such a waiting period (5.6%); and the

concern that it would interfere with board examination preparation by fourth-year residents (1.9%).

Reasons for supporting the change in program requirements included: It would reduce the number of errors in patient care (9.3%); six months is not sufficient time to prepare adequately for independent on-call duties (5.6%); and it would reduce the level of stress for first-year radiology residents (1.9%).