Remedial Training for the Radiology Resident:

A Template for Optimization of the Learning Plan

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All radiology residency programs should strive for the early identification of individuals in need of remedial training and have an approach ready to address this situation. This article provides a template for a step-by-step approach which is team based. It includes definition of the learning or performance issues, creation of suitable learning objectives and learning plan, facilitation of feedback and assessment, and definition of outcomes. Using such a template will assist the resident in returning to the path toward a safe and competent radiologist.

Key Words: Education; resident education; residents; remediation.

The academic rigor of radiology residency training is well known, indeed even among our peers in other disciplines. This reputation is appropriate given the breadth of anatomy, physiology, and pathology; requisite command of physics; and ever-evolving technology of our imaging modalities. It is a topic of discussion that appears in the postgraduate year 1 and reappears with increasing frequency to residents confronting the qualifying examination.

It should not be surprising then that program directors will occasionally encounter residents who are overwhelmed and may require remediation. Or alternatively, issues of professionalism may arise. The difficulty of this situation may be compounded by any combination of shame, embarrassment, denial, guilt, or delay in recognition. The latter problem has also been described as a "failure to fail."

At the behest of our Postgraduate Medical Education office and national accrediting body, residency programs have improved efforts and mechanisms for the earlier identification of residents requiring formalized assistance with their medical knowledge, clinical skills, or professionalism. The value of timely detection in optimizing the chance for remedial success has been noted by multiple authors (1–3). There are, however, various factors which may obstruct this. Rather than documenting a resident's poor performance, a supervisor may prefer to avoid an uncomfortable confrontation or the risk of reprisal through negative teaching feedback (3). As noted by Borus (3) though and observed in our own department staff are often willing to *verbally* express concerns regarding a resident to the program director. This collaboration is helpful but leaves the director with limited options for response (3). Programs should instead strive to develop a culture of feedback which includes regular informal feedback and complete details on written evaluations.

Our current practice is to follow up on any such informal comments with further details and to flag any rotations that were failed or passed with reservations. The incorporation of milestones in training should also facilitate the recognition of trainees requiring remediation. These provide objective measures of residents meeting the expectations of their level of training. Programs will define at what point the unsuccessful achievement of milestones will constitute the requirement for remediation. Our Residency Training Committee (RTC) convenes four to six times per year. The resident members are excused before the conclusion of each meeting to allow for a faculty discussion of resident performance. This regular forum engenders insight from multiple perspectives and facilitates a consensus opinion on a particular resident's requirement of remediation. The program recognizes the gravity of this decision, and such a process is valuable in alleviating the difficulty of this deliberation.

The timely recognition of such residents is only the initial task though. A customized plan for guidance, learning, and assessment must then be developed for each individual's specific needs (4). Resident participation is a key aspect of the planning (5). In addition to possibly revealing other factors contributing to the resident's difficulty (1), it will help affirm that the primary goal of the program is to assist the resident. Such an endeavor may quickly prove daunting in the face of particular learning

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TABLE 1. Various Activity Logs Required for Remediation Plan

Various Activity Logs
Completion of background knowledge learning items
Meetings with remedial supervisor
Discussion of issues and progress
Teaching
Oral examinations
Meetings with mentor
Discussion of issues and progress
Teaching
Oral examinations
Meetings with rotation supervisor
Review of learning objectives, expectations, and background reading list
Interim rotation feedback
End of rotation feedback
Self-reflection commentary at the end of each clinical rotation

issues of the resident, the preexisting demands on the teaching faculty, and the ongoing needs of the remaining residents. This article provides a step-by-step guide to a template for a remediation plan.

REMEDIATION TEAM

Resident remediation benefits from a team-based approach. The design and implementation of the remediation plan is coordinated by the *remedial supervisor*. This individual meets weekly to monthly with the resident to discuss progress and any new issues. These meetings are also an opportunity for extra teaching and should be documented in the resident's log of meetings (Table 1) and an ongoing commentary by the supervisor. Our program has an allowance for an assistant program director to fill this role, but any faculty member with an interest in teaching could be suitable. He or she must liaise with the program director and department head and the associate dean of postgraduate medicine.

The team also includes a *mentor* staff radiologist. This individual is mutually selected by the resident, remedial supervisor, and program director. It is typically someone with whom the resident has already established a relationship of trust and respect. In addition to providing teaching directed at the remedial objectives, this faculty member should also be able to share advice on learning strategies and provide counseling and psychological support. Meetings between the resident and the mentor are suggested each month and should be documented (Table 1).

The final member, the *resident advocate*, serves a purely supportive role. The events leading to the decision for the need of and the conduct of a remediation plan are likely to involve some element of controversy. The resultant stress may be mitigated by the presence of an advocate at any meetings with the resident, by ensuring a fair process. The choice of an advocate is made solely by the resident and is typically from his or her immediate peer group.

Other Supports

Whenever suboptimal clinical or professional performance is observed, the possibility of underlying factors should be considered. This is particularly important when there is a notable or rapid change in the above from the resident's baseline. Such stressors may include domestic issues, peer dynamics, and the resident's physical and mental health. The possibility of these elements should be questioned while meeting in a supportive environment. The resident should be made aware of all available resources, such as a resident wellness office or physician health program.

BACKGROUND ASSESSMENT

The plan should begin with an accurate definition of the learning and/or performance issues. The basis for this will likely arise from a comprehensive review of the resident's complete set of rotation evaluations to date. Any failed or incomplete rotations are tabulated and considered in particular detail. This is followed by a list of any consistent difficulties appearing on multiple evaluations and particularly without any mention of resolution. An example of such would be inconsistently meeting expectations for the "timely dictating and signing of reports." Other criteria may pertain to the diverse range of knowledge (eg, understanding of genitourinary anatomy and disease), skills (eg, breast sonography), and attitudes encountered in this discipline.

Specific comments from supervisors may also be quoted, as they provide concrete examples of suboptimal clinical performance or behavior. Other issues should be included if they are singular but represent more serious breaches of safe practice or ethical or professional conduct. These will likely require more detailed description of the incident and are included as appendices preferably on the basis of firsthand accounts by the resident and attending physician. The event may be corroborated by other involved individuals or viewed in the context of the resident's antecedent performance. This is particularly valuable if there are concerns of negative faculty bias.

Finally, any objective measures of resident performance should be listed. These may include the scores of any standardized tests within the program, such as objective structured clinical examinations or oral examinations. Our program has also had the fortune of participation in an online objective structured clinical examination created through the collaboration of several residency programs. The American College of Radiology in-training examination is challenged each year and provides an even larger reference standard. Indeed, the