Graduated Responsibility for Pathology Residents

No Time for Half Measures

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In "The Importance of Calculated Risk," Stephen Bauer, MD, past president of the College of American Pathologists, noted that, "[a]s young physicians, we were acutely aware that every choice we made had associated risks and benefits."[1] His words are cogent; indeed, as second-year medical students stepping onto the hospital wards for the first time in our nascent careers, we were keenly aware of the tremendous responsibilities we were accepting and the consequences of not meeting those responsibilities. We knew fear, and we talked among ourselves about it. Fear was, as it still is, a great motivator.

During the past quarter century, however, there has been a gradual shift in the focus of medical education.[2–10] As part of the shift, some pathology residents have entered residency with deficiencies, and some residents have developed deficiencies during residency, resulting in young pathologists graduating from residency unprepared to begin their pathology practices.

DEFICIENCIES IN BOTH PRERESIDENCY AND RESIDENCY TRAINING

The pathology community is aware of, and has not been idle on, the issue of resident deficiencies. In 2007, Kass and colleagues[11] examined the issue of pathology residency training deficiencies, and in 2009, Talbert and colleagues[12] evaluated and summarized the quandary within which pathology finds itself. In "Resident Preparation for Practice: A White Paper From the College of American Pathologists and Association of Pathology Chairs," Talbert and colleagues,[12] discussing both deficiencies in preresidency mastery of necessary physician knowledge and skills and deficiencies that arise in residency, noted that:

> Currently, gaps exist for some residents in the preresidency mastery of basic histology, anatomy and pathology, the ability to make relevant clinical decisions, life-long learning habits, interpersonal and communication skills, professionalism, ability to recognize limitations, readiness to practice independently, gross pathology skills, ability to handle high-volume surgical pathology, ability to provide competent [clinical pathology] consultation, and preparation in laboratory medical direction and management.

Preresidency deficiencies may be attributable to "changing medical school curricula, with less emphasis on histology, pathology, and gross anatomy," whereas "[t]he inability to make practical and clinically relevant decisions reflects the general competency of patient care… and most likely originates from lack of maturity, lack of experience applying knowledge, and poorly developed critical thinking skills."[12]

This gap continues to grow through training and into practice, resulting in pathologists failing to recognize clinical needs and failing to perform their consultative role.[12] Additionally, some residents do not begin training having already mastered life-long learning habits, "reflect[ing] a slow but steady erosion in the expectations for education (more defined learning experiences with less emphasis on synthesis) and the slow erosion of the view of pathology and medicine in general as a profession."[12] Some residents also begin their residencies with a deficit in interpersonal and communication skills and with a lack of professionalism, "manifest by seeing pathology as only a job to support a lifestyle."[12] Factors contributing to those deficits "include generational differences, immaturity, societal change, the corporatization of medicine, and a general sense of malaise in the medical profession. The impact is both deep and wide-ranging, with a perceived loss of self-identity and respect as a physician, less dedication to professional standards, and less sense of duty to patients and fellow physicians."[12]

As residency progresses, "[t]he successful trainee develops a very keen sense of dedication, honesty, commitment, intellectual fortitude, integrity, and respect for both patients and colleagues."[12] Unlike nonpathology residents, who quickly "break the mold formed [in medical school] by being handed a large syllabus containing all of the information that they need to know for an exam and the world of multiple choice questions"… "[i]n contrast, pathology residents may fall into a passive learning style with little or no clinical responsibilities, clinical contact, or accountability…,"[12] leading to "significant deficiencies in confidence, expertise, professionalism, and lifelong learning skills."[12]

PATHOLOGISTS RECOGNIZE THE PROBLEM

Dr Bauer, analyzing the pathology residency situation in "Training, Jobs, Fit, and Fellowships," notes that "[p]athologist workloads have increased substantially over the years and many practices report that new hires have difficulty adjusting

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to the pace and to a sudden increase in diagnostic responsibility."[13] He observes there is "a broad range of expectations among hiring pathologists, program directors, and candidates, pointing to a need for better communication"[13]; and "[t]hose entering the market since July 2009 were more likely to report difficulty finding a job…."[13]

The conversation among pathologists regarding resident deficiencies has been robust. Practicing pathologists have expressed considerable concern, arguing that "pathology programs are not being very effective if they produce some 31% of graduates with at least one major deficiency and if some 61% of personnel need guidance."[14] Some go so far as to claim that pathology residencies "are producing a *deficient product* [italics in original]…. We want quality in training, not quantity."[14] Leaders in the College of American Pathologists have responded, emphasizing that "identification of apparent deficiencies in graduates does not mean that they are incapable of practicing medicine as American Board of Pathology–certified pathologists. If anything, the first set of postgraduate tasks in what might be termed *lifelong learning* [italics in original] are [sic] clearly delineated."[11]

Lifelong learning is a laudable goal; however, medical malpractice jurisprudence requires that all pathologists be held to the same standard of care regardless of an individual's professional maturity or years in practice. The Restatement (Second) of Torts, §7.02 Medical Malpractice, asserts the following[15]:

> The standard of care to which physicians are held is set by the custom of their profession. The physician must possess and use the knowledge and skill common to members of the profession in good standing. This standard demands of the physician minimal competence. In the medical malpractice context, liability flows from the physician's failure to conform to the profession's customary practice. Conversely, if the defendant doctor adheres to customary practice, she cannot be found to have committed malpractice.

Because pathologists beginning their careers are held to the same legal standard of care as more-mature pathologists, deficiencies in pathologists beginning their practice are a significant medical malpractice risk. With the pathology resident's medical malpractice risk essentially entirely transferred to the hiring pathology group, instead of being borne by the training program, those groups fear that they "may have saved a few dollars by hiring a graduate with deficiencies, but it will come back to haunt them with litigation and liability risk by those graduates…."[14] However, the College of American Pathologists leaders are taking the issue extremely seriously, and "are optimistic that our specialty will make important adaptations and improvements in pathology residency training."[11]

RESIDENTS RECOGNIZE THE PROBLEM

Pathology residents are also acutely aware of their deficiencies and are concerned about their own ability to transition to private practice or academia.[16,17] They recognize that the deficiencies arise to a great degree from the lack of genuine resident responsibility.[16,17] A Web site popular with pathology residents has addressed the issue of resident responsibility and deficiencies, and resident comments regarding responsibility and preparedness are fairly uniform.[17] One resident states, "[i]n general, we have absolutely no responsibility until we finish residency. We never have to make a tough call. Ever…. Contrast that with other departments, like medicine, where residents essentially run the service and attendings are often made aware of decisions after the fact. They are definitely ready to do what they do after 3 years of training."[17] Another resident notes that "[p]athology residents, in general, handle nonbillable service work, and sit in on billable work. Unfortunately that's exactly the stuff residents are—supposed—to be being primarily trained in."[17] One comment on the Web site is harsh but unambiguous; "… I've been at places where recent trainees will walk in with one-half their caseload to show to people… fairly pitiful but the facts of life at the moment. I would say the current methods employed by a vast majoiy [sic] of training programs to teach pathology are horrendous and it really shows."[17]

MULTIPLE FELLOWSHIPS ARE A SYMPTOM OF THE PROBLEM

Multiple pathology fellowships are one symptom of pathology resident deficiencies. Unfortunately, some pathology residents, rather than entering fellowships to embrace specialized study and develop subspecialty expertise, perhaps with the goal of pursuing an academic passion, "opt for multiple fellowships in an attempt to be better prepared for the marketplace and to acquire greater exposure to wider practice varieties and numbers of cases."[12]

Indeed, Talbert and colleagues[12] note that "[m]ost trainees elect a fellowship, suggesting that current residency training is not adequate to prepare them for immediate practice." Unfortunately, "[f]ellowship training has become an exercise de rigueur, without which the newly graduated residents may be deemed inadequately prepared for practice."[12] "This gap in preparedness to practice independently has resulted in the perception that fellowships are mandatory for adequate training in [anatomic pathology]."[12] Unfortunately, fellowships may not prepare trainees "for the real world of practice, largely because many fellowships do not allow the fellow to act with full independence."[12] Fellowships accredited by the Accreditation Council for Graduate Medical Education (ACGME) "are funded through the institutional funding derived from Centers for Medicaid and Medicare Services, which may not allow unsupervised sign-out."[12]

Louis and colleagues,[18] in "'Next Generation' Pathology and Laboratory Medicine," clearly state the unavoidable conclusion regarding multiple fellowships: "[P]athology and laboratory medicine needs to prepare its trainees appropriately—to provide a strong foundation in emerging technologies and quality measures and to prepare pathologists to become credible consultants in their fields. This cannot be accomplished by simply extending the time of training…." Nonetheless, the trend toward increased numbers of pathology fellowships is continuing, and because pathology "has entered into a phase when the 4-year sequence of [training] is almost universally followed by 1 or more years of Subspecialty Fellowship Training…."[19] The Council of the Association of Pathology Chairs has recommended "implementation of a pathology Subspecialty Fellowship Matching program starting in the 2011 to 2012 recruiting year…."[19] However, "residents are deeply divided on the question of a match…."[13]

GRADUATED RESPONSIBILITY AND THE ACGME

Although the causes of pathology residency deficiencies are multifactorial, one important measure necessary for eliminating them is the establishment of "graduated responsibility to the level of actual decision making…" in pathology residency.[12] Dr Bauer and other pathology leaders have envisioned levels of "progressively increasing responsibility with decreasing supervision, the least restrictive being after-the-fact review of decisions affecting clinical care that has already been provided."[13]

An ACGME Task Force appointed to develop recommendations for new comprehensive standards has "affirmed that the [ACGME] standards would need to go far beyond limits on resident hours to promote high-quality education and safe patient care, and the Task Force's recommendations included comprehensive, graduated standards for resident supervision."[20] "[T]he Task Force received written position papers from more than 140 medical organizations and during 1.5 days, heard formal testimony from more than 70 national organizations representing all domains of medicine and medical education."[20] The graduate medical education community "voiced growing concern, progressing to alarm, that a principle that undergirds clinical education—graded authority and progressive responsibility coupled with graded supervision—may be eroding in America's teaching hospitals."[20] The positions presented to the Task Force by the academic community[20]:

> … emphasized the benefits of a system that would take into account the level of training and competence of the resident, the level of supervision, the anticipated workload, and, perhaps most important, the value of graduated responsibility to prepare residents to function independently after graduation.

Many GME leaders "testified to the need for preparing residents for the transition from conditional independence during their years of training to independence upon graduation."[20] Pathology leaders provided the ACGME with the concept of graduated responsibility for pathology residents comprising "four levels of graduated supervision with specific criteria for each."[1]

Recognizing that "[t]he concept of graduated or progressive responsibility is the cornerstone of medical training in the United States,[20]:

> The ACGME appreciates (particularly applicable to a specialty that has traditionally relied on relatively passive teaching techniques, such as pathology) that "too much supervision can be given throughout training, causing a lack of preparedness at the time of graduation from training, or "falling off the cliff into practice."

In response to GME leaders' widespread concerns, the ACGME's "2011 duty hour standards include provisions for enhanced supervision and graduated responsibility…."[20] The ACGME believes that "[t]he new standards incorporate validated approaches for supervision and graduated responsibility that balance delegation of patient care responsibility to residents, resident learning, and delivery of safe patient care."[20] To that end, "the ACGME is working with its Review Committees and specialty boards to develop specialty milestones—clear, specific accomplishments relevant to the specialty that residents must achieve at specific times during their education…" and "[a]t the time of [the ACGME 2011 Duty Hour Standard] writing, 5 specialties (internal medicine, pediatrics, surgery, obstetrics-gynecology, and urology) are nearing completion or have initiated the development of specialty-specific milestones."[20]

PATHOLOGY RESIDENTS' CURRENT PERCEPTION OF GRADUATED RESPONSIBILITY

As pathology develops its own milestones establishing graduated responsibilities for its residents, it is important to be cognizant of pathology residents' current concept of "graduated responsibility." One resident Web site discussing graduated responsibility observes that "[a]lthough nearly everyone agrees that 'graduated responsibility' is a good thing during pathology residency training, the definition of 'graduated responsibility is vague and unclear."[16] Asked to describe in their own words how they define graduated responsibility, residents gave examples including: "… residents take turns in the hot seat and… must commit (in front of the whole room) to the *diagnosis that they would give at the time of frozen section…*" (italics in original); "[d]uring conference, if I see an unknown and think I know the answer only to find out I am wrong when they tell us the answer, I make it a point personally to let everyone know the wrong answer I was thinking…"; "[a]s the resident progresses over time, the resident may predictate and then give the case to the attending to sign out without sitting with the attending again for sign out. This allows upper level residents to gain additional autonomy"; and during frozen section, "the faculty let them have first 'crack' at a frozen section under supervision."[16] All of these activities suggested are appropriate and useful parts of residency training in pathology; however, none meets a definition of graduated responsibility that includes specifically placing the pathology resident at actual increased medical malpractice risk. Indeed, only one suggested example of graduated responsibility on that Web site did so: "[s]enior residents serve as autopsy attending for 1 [to] 2 weeks in their final years of training."[16]

Clearly, having very limited or no exposure to real graduated responsibility, residents currently have little concept of actual responsibility where "it is expected that the upper level residents rotating on the surgical pathology service will sign out cases on their own…," and in doing so, acquire the appropriate medical malpractice risk.[21] It will undoubtedly be important to prepare residents for the shift in the medical-legal paradigm that will occur as part of their undertaking increasing, graduated responsibilities.

PATHOLOGY FACULTY

The implementation of graduated resident responsibilities will also be challenging for pathology faculty. "For the most part, closing the gaps is the responsibility of medical school and graduate medical education training program faculty."[12] Program directors will need "a clear framework within which to ensure that residents have appropriate opportunities to take responsibility for diagnostic decisions with progressively less oversight."[1] "First-year residents [for example, will] have new requirements for supervision that may place added demands on senior residents and faculty."[13] Indeed, "[t]he new [ACGME] standards demand enhanced supervision for first-year residents…."[20]

Program directors will be especially challenged. "[I]t takes a particular combination of high standards, creative thinking, and hard work to manage a training program"[13];

and "time and workload management are critical."[12] Importantly, "competency-based learning must allow time for remediation for those trainees having inadequate performance…"[12] and "structuring individualized programs for residents in need of remediation falls squarely on the already often overworked residency program director."[12]

Pathology faculty will have to work closely with administrators to address billing issues arising from federal law and to address residents' medical malpractice coverage, which will have to be commensurate with their graduated responsibilities. More than ever, pathology faculty will have to meet their charge to "… ensure that today's residents are ready for practice at graduation, prepared to function independently in a practice environment that presses forward in so many directions at once."[1] The challenges facing pathology faculty should not be underestimated.

NO TIME FOR HALF MEASURES

The institution of graduated pathology resident responsibilities will only be successful if those responsibilities are actual responsibilities. Actual responsibilities entail the resident making a decision or diagnosis for which there is potential outcome to the patient, with attendant medical-legal risk. As Dr Bauer noted, graduated responsibility would "put an end to 'social promotions' under which successful completion of training meant an apparent ability—rather than a demonstrated ability—to take true diagnostic responsibility."[1]

Time is short. Precision medicine—using biomarkers to "tailor and deliver the right treatment to the right patient at the right time, based on improved knowledge about the patient's biology"—is quickly establishing itself and threatening to make the centuries-old diagnostic practice of empirical medicine—matching diseases to a combination of medical history, symptoms, physical examination, and laboratory data with "treatments honed for the 'typical' patient"—obsolete.[22–24] "[N]ow more than ever, the hospital-based pathologist has opportunities to establish and grow his or her role as clinical consultant, contribute to broad and effective hospital quality plans, aggregate and issue clinical performance data for system improvement, and lead the enhancement of medical care in the hospital as one of the few physicians still practicing full-time throughout much of the hospital."[12] Indeed, "[n]ext-generation pathologists… may look very different to their medical and surgical colleagues."[18]

Unfortunately, "graduate medical educators [have] been 'punting' that vital… step in training—taking bottom-line clinical responsibility—to those who hired their graduates."[1] "These gaps in preparation will widen as changes within the profession accelerate."[12] "Pathologists are at risk of losing their influence as clinical consultants and in many cases are being viewed as producing a commodity product in both [clinical pathology] and [anatomic pathology]."[12]

In addition, the concept of graduated responsibility does not stop with diagnosis. "Residents should [also] participate in decision making in the laboratory as it applies to quality, personnel issues, certification and accreditation, and coding, billing, and compliance issues."[12] Residents will have to have graduated responsibility for skills as diverse as "strategic planning, budgeting, and management operations of the laboratory; personnel management issues; practice management issues such as coding, billing, collecting, and contract negotiations; the pathologists' role in the medical staff and medical community; and interacting with hospital or health care system administrators."[12] Unfortunately, trainees completing residency have "inadequate knowledge and virtually no experience or skill in these areas."[12]

CONCLUSIONS

For more than half a decade the pathology community has been discussing initiating robust, graduated resident responsibilities.[1,11–13] As Talbert and colleagues[12] said 3 years ago: "The time to act is now." "Didactic lectures, teaching conferences (intradepartmental and interdepartmental), and teaching aids… do not substitute for real-time experience in [anatomic pathology]."[12] Graduated responsibility will be an important measure in eliminating disparities, and although transitioning to genuine graduated resident responsibility "will be a major adjustment for residents, fellows, and supervising faculty…,"[13] it cannot be achieved with half measures. "The risks of maintaining the status quo are very high, not the least of which is loss of traditional pathology duties to other specialties."[12]

Current training practices for pathology residents are unsustainable, and as Paul Campos, JD, Above the Law's 2011 Lawyer of the Year, said, "[W]hen you have an unsustainable business model you have to change or die."[25]

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