Editorial

Changes in USMLE Step 1 Result Reporting: A Pass or Fail for Pathology Programs?

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Sixty-seven percent of active pathologists are aged 55 or older making pathology one of the most "senior" specialties.[1] Age brings expertise, and experts are relied on heavily in pathology; however, the concern lies in the fact that the majority of pathologists are near retirement age. There has been a steady decrease in the number of applications to pathology residency programs from both US medical graduates (UMGs) and international medical graduates (IMGs). The most recently published data (2015-2020) from Electronic Residency Application Service® shows a 23.37% overall decrease in pathology-directed applications. The decline is similar among UMGs and IMGs: 20.91% versus 24.28%, respectively. This decrease is in juxtaposition to an overall increase of total applications (7.76%) to the Accreditation Council for Graduate Medical Education (ACGME) residency programs.[2] The 2020 National Resident Matching Program® data reveal that of the 865 applications to pathology, 238 (27.5%) applied to at least one other specialty, and of those, pathology was *not* the first choice for 68.1%. Consequently, of the total pathology positions filled, 20.2% were by applicants who did not rank pathology only.[3] These data show that even within the subset of medical students interested enough in pathology to rank it, approximately one fifth could end up in another specialty.

Adding to this predicament, on February 12, 2020, the United States Medical Licensing Examination (USMLE) program announced fundamental changes to the USMLE Step 1 score reporting method. Currently, the 3-digit Step 1 score is used by residency programs (with varying degrees of emphasis) for triaging candidate applications. While imperfect, anecdotal data suggest programs see the 3-digit Step 1 score as a "quantitative" insight into the strength of application, and for better or worse, the score gives an objective comparator between candidates. This change comes when most United States medical schools are reporting pass/fail grades for the preclinical years, and some are no longer reporting class rank; while IMGs inherently undergo a different medical school evaluation process. Right now, the 3-digit Step 1 result seems to be a crucial component in leveling the field and creating a landscape of merit-based achievement.

So, what is the change in reporting? Instead of the 3-digit score, the USMLE program will be reporting the result as pass or fail only. The primary impetus for this change was to address concerns about the Step 1 process impacting student well-being.[4] Currently, rates of depression, burnout, and even suicide are seen at an alarming frequency in medical schools.[5] Removing a monstrous stressor from medical students is indeed a step in the right direction from a wellness standpoint; however, are there unintended consequences for residency choice? A recent study published in the *New England Journal of Medicine* surveyed over 2095 medical residency program directors across 30 specialties to ascertain their perspective on the change. Notably, 60.8% thought that the transition to pass/fail was not a good idea. Furthermore, 77.2% agreed it would make it more difficult to compare applicants objectively, and 44.4% agreed it would place IMGs at a disadvantage.[6]

What will be the impact on the Pathology pipeline? This transition will not take place *before January* 2022. As this date approaches, clarity will be provided on how the Federation of State Medical Boards and the National Board of Medical Examiners (NBME) wish to proceed, giving programs and students plenty of runway to prepare. Ultimately, no one knows how this change will ripple out, but effective planning and execution will hopefully mitigate the negative effects while elevating the positive. Examining this change through the lens of the applicants and programs may lead to exposure to opportunities.

First the medical students. There is a chance they will no longer learn Pathology as a means to an end (ie, Step 1), permitting them

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to pursue other academic interests and learn what Pathology is in practice. In this new time frame wherein the Step 1 score is deemphasized, students may (potentially) seek out more research and shadowing opportunities. As pathologists, our work touches every field of medicine; we can offer insights and opportunities that bolster residency applications overall and hope to benefit during that process. This is our opportunity to bring students into the various portions of the lab with the intent of recreating the spark that made us choose pathology. Optimistically, the pass/fail option may help demystify the black box and "win over" a few applicants.

The next group that will need to adapt to this change are program directors. Step 1 is rich in pathology core concepts, unlike the more clinical-based Step 2 Clinical Knowledge (CK). Loss of the 3-digit score would decrease their ability to evaluate candidates' academic prowess objectively. Furthermore, the lack of the Step 1 score potentially reduces the forced exposure students were having to pathology (by pressure cooker study for the 3-digit score). Opponents of this change ask what objective data will programs now have to judge pathology knowledge? If medical school curricula and Step 1 scores all report pass/fail, then the best and the worst-performing students will be indistinguishable. So, what will programs use—the Step 2 CK score (which, for now, will still remain as a 3-digit score)? This test-and-score holds less value for pathology overall. Additionally, many UMGs will not have a Step 2 CK score available at ERAS opening, while many IMGs will. Directly transferring to Step 2 CK score as a screen will not be straightforward. So, if not the Step 2 CK score, what will programs use as a preliminary triage metric? The *subjective* evaluations from clinical rotations? Letters of recommendation? Research? It doesn't seem like there is a clear-cut replacement for the loss of the 3-digit Step 1 score.

As we adjust to this "new normal," it is *imperative* that pathology has a seat at the table. The exclusion of pathology as a career choice for medical students is multifactorial and has been examined over decades.[7-9] One of the most troubling facts that we know anecdotally and was also reported by Hung et al[7] is that pathology is not "ruled out" by medical students; it is never even considered. As the time for implementing this change edges closer, it is clear that pathology residency programs will have to create an algorithm for a renewed "holistic" residency application review process. While the overarching agreement is that the reduction of pressure and increased wellness for medical students is excellent overall, the lack of a quantitative pathology score will change the application and evaluation process. It will be interesting to see how additional changes in medical school curricula (testing and reporting, shortening of the preclinical years, etc) will alter the pathology pipeline even more. Another question that will be born out with time is how medical student application habits to various specialties will shift without the Step 1 score as a barometer of "competitiveness." As we prepare for a change in how medical students are evaluated for residency, we should continue to keep an eye on how they are recruited. We can no longer hope that the necessary number of medical students will stumble across pathology. Applicant data and trajectory are clear—without proper planning and execution, we will have to scramble (literally).

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