Impact of Pass/Fail USMLE Step 1 Scoring on the Internal Medicine Residency Application Process: a Program Director Survey

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INTRODUCTION

In February of 2020, it was announced that U.S. Medical Licensing Examination (USMLE) Step 1 results would be reported as binary (pass/fail) as early as 2022. A major motivation for this change was to reduce emphasis on USMLE scores in the transition between undergraduate and graduate medical education.¹ Numeric Step 1 scores play a major role in the internal medicine (IM) residency application process in part because there are far more applicants than available positions.² In 2018, 95% of IM program directors (PDs) used Step 1 scores to determine who to interview for their residency programs.³ A recent national survey demonstrated negative PD perceptions of binary Step 1 scoring across many specialties.⁴ The perspective of internal medicine PDs, however, remains uncharacterized. This study aims to determine IM PDs' perspectives regarding the effect of pass/fail USMLE Step 1 scoring on the residency application process.

METHODS

After survey validation and institutional review board exemption, we invited PDs from Accreditation Council for Graduate Medical Education (ACGME)-accredited residency programs in 30 specialties, including 502 IM PDs, to voluntarily participate in an anonymous electronic survey.⁴

RESULTS

Two hundred six responses were obtained (response rate = 41.0%). The mean PD age was 52 ± 9.8 years. 65.0% were male. The mean tenure as PD was 7.4 ± 6.4 years. Only 11.7% of PDs agreed that the scoring change was a good idea, and few (18.9%) agreed it would improve medical student well-being. 74.8% anticipated the change would make applicant screening more arduous. The majority of PDs (88.4%) reported that binary Step 1 scoring would increase emphasis

on USMLE Step 2 Clinical Knowledge (CK), and 83.6% would require Step 2 CK scores at the time of application. Meanwhile, 57.3% of PDs reported that medical school reputation would become more important. Finally, only 3.4% of PDs believed Step 2 CK should be changed to pass/fail (Table 1).

DISCUSSION

The purpose of this study was to characterize the implications of binary Step 1 scoring within internal medicine. While a primary goal of this change was to decrease emphasis on standardized test scores, our results suggest that Step 2 CK will likely replace Step 1 in the application process.¹ Another objective of the scoring change was to improve medical student wellness given the significant stress associated with USMLE exams.⁵ Unfortunately, only 18.9% of IM PDs believe medical student well-being will improve. This is unsurprising, as overreliance on high-stakes exams causes anxiety, and shifting the emphasis of test-performance to Step 2 CK leaves the root of the problem unaddressed.

In contrast to many other specialties, IM PDs already prioritize Step 2 CK performance. In fact, 90% of programs use Step 2 CK to screen applicants for interviews, and most PDs give Step 2 CK similar weight as Step 1.³ Previously, strong performances on Step 2 CK could help remediate low Step 1 scores. However, without a numeric Step 1 score, there will be even more pressure to perform well on Step 2 CK. Additionally, students who fail Step 1 on the first attempt can no longer demonstrate significant numeric improvement on the repeat exam.

Worryingly, 57.3% of PDs report medical school reputation will be of greater importance in the application process. In 2019, IMGs and osteopathic students filled over half (55.8%) of PGY-1 positions in IM.² Without Step 1 scores to allow for standardized comparison between these students and their US allopathic counterparts, IMGs and osteopathic applicants may be at a disadvantage in the match.

In summary, most IM PDs do not support binary Step 1 scoring. Few PDs believe the change will improve medical student well-being, and most think it will make the residency selection process more arduous. This change will increase emphasis on USMLE Step 2 CK and disadvantage certain groups of medical students. Though the change to pass/fail scoring is well-intentioned, until additional reforms are

Table 1 Internal Medicine Program Director Perspectives of Scoring Step 1 Pass/Fail

Statement	Disagree	Neutral	Agree
	Percent (99.9% confidence interval)		
Changing the USMLE Step 1 to pass/fail:			
Is a good idea	73.2 (63.0-83.4) *	15.1 (6.9-23.4)	11.7 (4.3-19.1)
Will make it more difficult to objectively compare applicants	8.7 (2.3-15.1)	10.1 (3.2-17.1)	81.2 (72.2-90.1) *
Will increase emphasis on Step 2 CK scores in selecting applicants for my program	4.8 (0.0-9.7)	6.8 (1.0-12.5)	88.4 (81.1-95.7) *
Will put international medical graduates at a disadvantage	14.6 (6.5-22.7)	29.6 (19.1-40.1)	55.8 (44.4-67.2) *
Will decrease socioeconomic disparities in the application process	45.4 (33.9-56.8)	42.9 (31.5-54.3)	11.7 (4.3-19.4)
Will decrease medical student knowledge of the basic sciences	18.4 (9.6-27.3)	39.3 (28.1-50.5)	42.2 (30.9-53.6)
Will improve medical student well-being	43.7 (32.3-55.1)	37.4 (26.3-48.5)	18.9 (9.9-27.9)
Will make applicant screening more arduous	9.2 (2.6-15.9)	16.0 (7.6-24.4)	74.8 (64.8-84.7) *
As a result of changing USMLE Step 1 to pass/fail:			
I will now require applicants to submit Step 2 CK scores with ERAS	3.6 (0.0-8.4)	12.7 (4.2-21.3)	83.6 (74.2-93.1) *
Where an applicant goes to medical school will be more important in screening and selection for my program	17.6 (8.7-26.5)	25.1 (15.0-35.2)	57.3 (45.7-68.8) *
Step 2 CK should also be changed to pass/fail	88.8 (81.6-96.1) *	7.8 (1.6-13.9)	3.4 (0.0-7.6)

*Indicates a statistically significant ($p < 0.01$) plurality of responses by non-overlapping 99.9% confidence intervals

implemented, it may negatively affect the IM residency application process for both applicants and programs.

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Compliance with Ethical Standards:

Conflict of Interest: The authors have no relevant conflicts of interest to disclose related to this manuscript. Please see attached ICMJE form for further details.

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