To the Editor: Electronically Implementing COMLEX-USA Level 2 to USMLE Step 2 Conversion Tools

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We appreciate Barnum and colleagues producing a robust conversion tool to better interpret osteopathic (DO) applicants' Comprehensive Osteopathic Medical Licensing Examination of the United States (COMLEX-USA) scores in relation to United States Medical Licensing Examination (USMLE) scores.[1] This work will promote the fair and objective assessment of COMLEX-USA Level 2 scores by program directors who are unfamiliar with the examination.[2] However, an electronic solution would facilitate the use of the table by program directors reviewing hundreds of applications. Furthermore, a solution that outputs numeric scores rather than ranges would facilitate comparisons across many applicants. Therefore, we provide 3 electronic solutions.

First, we provide a Microsoft Excel function that converts Level 2 scores to the Step 2 ranges using the Barnum table.[1] Next, we provide a similar function that outputs a numeric Step 2 score by scaling the coinciding Level 2 and Step 2 ranges.[1] Lastly, we show that the simpler Smith formula is a reasonable alternative that has good concordance and agreement with the Barnum table.[1,3] We provide the Excel functions for all 3 solutions in the online supplementary data.

To assess concordance and agreement between the Barnum and Smith tools, we used published 2022 National Resident Matching Program (NRMP) Match data to generate Level 2 scores.[4] We did this by generating the reported number of scores for matched and unmatched DO seniors (excluding those without scores) within each Level 2 score range for each specialty using a uniform distribution for each range. We converted these generated Level 2 scores to Step 2 scores with the Barnum and Smith tools (supplemental R file).[1,3] We then calculated the intraclass correlation coefficients (ICC) between the tools to assess concordance and created a Bland Altman plot to assess agreement.[1,3] All analyses and visualizations were performed in R (Version 4.4.1, R Foundation for Statistical Computing).

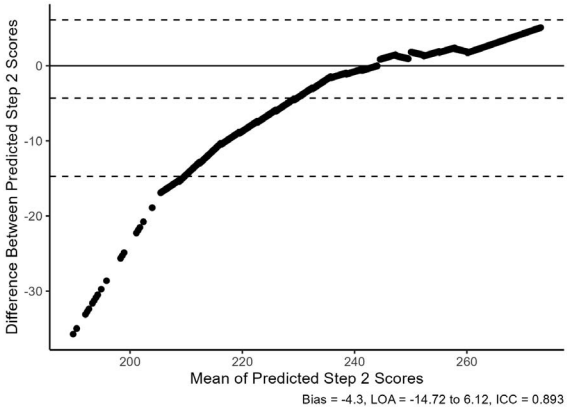

FIGURE
Bland Altman Plot Displaying Agreement Between Predicted United States Medical Licensing Examination (USMLE) Step 2 Scores From the Barnum and Smith Comprehensive Osteopathic Medical Licensing Examination of the United States Level 2 to USMLE Step 2 Score Conversion Tools

Abbreviations: ICC, intraclass correlation coefficients; LOA, limits of agreement.

We generated 5703 Level 2 scores from the reported NRMP counts. The generated scores had a mean and standard deviation (SD) of 564.9 (93.1) (online supplementary data), which was similar to the NRMP reported mean and SD of 570.1 (92.5) for matched DO seniors.[4] The ICC was good between the Barnum and Smith tools (0.893). However, the tools did not agree for Level 2 scores $\leq$421 with the Smith tool overestimating scores below this threshold (FIGURE). Nevertheless, only 313 of 5703 (5%) of our generated scores were at or below this threshold.

Barnum and colleagues have created an important tool for fair and objective assessment of DO applicants' COMLEX-USA scores. We hope that providing

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Editor's Note: The online supplementary data contains further data.

these 3 electronic solutions will facilitate the widespread use of these tools and encourage consideration of DO applicants (online supplementary data).

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