How to Predict USMLE Scores From COMLEX-USA Scores: A Guide for Directors of ACGME-Accredited Residency Programs

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Context: Graduates of colleges of osteopathic medicine (COMs) frequently apply to residency training programs accredited by the Accreditation Council for Graduate Medical Education. However, students who have taken the Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA) rather than the United States Medical Licensing Examination (USMLE) may encounter a selection bias when applying to allopathic residency programs.

Objective: To evaluate the correlation between scores on COMLEX-USA and USMLE by COM students who took both examinations.

Methods: Scores were analyzed from a cohort of COM students who took COMLEX-USA Level 1 and USMLE Step 1 and a cohort of students who, during the same time, took COMLEX-USA Level 2 and USMLE Step 2.

Results: At the Kirksville (Mo) College of Osteopathic Medicine of A.T. Still University of Health Sciences, 155 students took both COMLEX-USA Level 1 and USMLE Step 1 and another cohort of 56 students took COMLEX-USA Level 2 and USMLE Step 2. The Pearson product moment correlation of the scores from COMLEX-USA Level 1 and USMLE Step 1 was 0.83 (P<.001) and for COMLEX-USA Level 2 and USMLE Step 2 was 0.70 (P<.001). Scores on USMLE are predicted by the corresponding COMLEX-USA scores using the equations USMLE Step 1 = 67.97 + 0.24 × COMLEX-USA Level 1 (R²=0.68); and USMLE Step 2 = 102.2 + 0.18 × COMLEX-USA Level 2 (R²=0.46).

Conclusion: A method of estimating USMLE scores from COMLEX-USA scores is provided for residency directors of institutions accredited by the Accreditation Council for Graduate Medical Education for the evaluation of COM applicants.

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Comment
Graduates of COMs make up an ever-increasing number of applicants to allopathic residency programs. From 1996–1997 to 1999–2000, the number of COM graduates filling allopathic residency programs rose 17.7%. In the 2001–2002 academic year, 2316 COM graduates were in graduate medical education programs approved by the American Osteopathic Association, while 4658 were in ACGME-accredited programs. Scores on USMLE are very influential in residency selection for allopathic programs. Graduates of COMs must either apply for positions in allopathic medical residency programs using their COMLEX-USA scores or take USMLE in addition to COMLEX-USA. We have shown a correlation between the scores on COMLEX-USA Levels 1 and 2 and the corresponding scores on USMLE Step 1 and Step 2. Part of COMLEX-USA, unique to COMs, involves osteopathic theory and technique. It could be that differences in scores may relate to this additional content; however, the exact content of each examination was not available for comparison. A COM student’s COMLEX-USA Level 1 and Level 2 scores can reasonably and accurately predict USMLE Step 1 and Step 2 scores. Our formulas provide a method of comparison for residency directors in ACGME-accredited institutions as they evaluate applicants from COMs. Further research is necessary to evaluate the use of these formulas on a prospective basis.

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