The Correlation Between USMLE and COMLEX Exam Scores for Applicants to a Dually-Approved Emergency Medicine Residency: An Eight-Year Experience

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The Correlation Between USMLE and COMLEX Exam Scores for Applicants to a Dually-Approved Emergency Medicine Residency: An Eight-Year Experience

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Introduction:
With the announced single GME system, EM residencies may see an increase in applicants who submit unfamiliar standardized exam scores. To date, there is limited information positively correlating USMLE and COMLEX scores for EM applicants.

Objective:
To determine the correlation between USMLE and COMLEX scores for applicants to an EM residency.

Methods:
After IRB approval, we retrospectively gathered all exam scores for applicants to our four-year, 56-member, dually-approved EM residency from 2006-13. Included were applicants who submitted scores for both exams. Demographic analysis was descriptive. Scatterplots were used to visualize pairwise relationships. Multiple linear regression models, stratified by test step, were created with the COMLEX score as the outcome and USMLE score as the predictor value. Participant age and sex were included in each model.

Results:
The identified 556 applicants are shown in Figure 1. Pair 1 includes applicants with both COMLEX Step-1 and USMLE Step-1 scores (n=486). Pair 2 are those with both COMLEX Step-2 and USMLE Step-2 scores (n=356). For Pair 1, 66% were male with an average age of 28. For Pair 2, 64% were male; the average age was 28. Mean, standard deviation and median for Pair 1 on the COMLEX was 551, 69 and 548, respectively; for the USMLE, it was 216, 16 and 217. Results for Pair 2 on COMLEX were 566, 80 and 562; USMLE results were 228, 18 and 229. As shown in Figure 2, a strong correlation was observed for Pair 1 (r=0.78, p<0.001). A linear regression model controlling for sex and age, a one-point increase in USMLE Step-1 is associated with a 3.55 point increase in the COMLEX Step-1 score (ß=3.55; 95% CI: 3.30-3.80, p<0.001). A similar strong correlation was observed for Pair 2 (r=0.72, p<0.001).

Conclusion:
In our cohort, a strong positive correlation between USMLE and COMLEX was found. This relationship may aid EM residency evaluation of applicants who submit test scores with which they are not familiar.