



**NATIONAL BOARD OF MEDICAL EXAMINERS®  
INTERNATIONAL FOUNDATIONS OF MEDICINE® (IFOM®)  
2017 CLINICAL SCIENCE EXAMINATION  
Score Interpretation Guide for Examinees**

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The NBME® International Foundations of Medicine (IFOM) program provides medical schools internationally with tools for measuring examinees' understanding of the medical sciences. The IFOM Clinical Science Examination (CSE) assesses the medical knowledge and understanding of clinical science considered essential for the provision of safe and effective patient care.

***IFOM CSE Scores***

The 2017 IFOM CSE scores were scaled to have a mean of 500 and a standard deviation of 100 based on the 2010 IFOM CSE scaling group and are limited to a range of 200 to 800. This scaling group included a sample of examinees from the Americas, Asia including the Middle East and Europe in the final year of medical school.

The 2017 IFOM CSE is administered in both paper-and-pencil and web formats and is offered in Portuguese, Spanish and International English. Caution should be used in the interpretation of scores as the modality and language of the test administration may affect performance for some examinees. In addition, the stakes associated with the IFOM CSE administration may affect performance for some examinees due to differences in preparation and motivation.

***Precision of Scores***

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the imprecision of scores. The SEM is approximately 26 points for the IFOM CSE. Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering similar content. An interval expected to encompass about two thirds of scores observed on repeated testing may be found by adding and subtracting the SEM from the reported score.

***Interpreting IFOM CSE Scores***

The IFOM CSE is used for a variety of purposes by both individuals and institutions. Individuals use IFOM CSE for several purposes, including participation in exchange programs, application for post-graduate training programs and professional positions, and self-assessment relative to international standards. Medical schools use IFOM CSE for formative and summative assessment, curriculum evaluation and international benchmarking. Post-graduate programs use IFOM CSE for selection of graduates for training. Ministries of health/education use IFOM CSE as part of assessment for regional certification.

As implied based on the variety of uses of IFOM CSE, it is utilized for both high-stakes and low-stakes assessment purposes. The stakes for the examinee taking the IFOM CSE as well as differences in educational level, preparation and motivation may affect performance. These factors should be considered when interpreting performance and when comparing performance based on one use of IFOM CSE to performance based on a different use. These factors should also be considered when interpreting IFOM performance relative to Step 2 CK performance and the Step 2 CK minimum passing score. Step 2 CK is a very high-stakes examination that is taken after intense preparation. While the IFOM CSE score of 602 that corresponds approximately to the Step 2 CK minimum passing score is useful as a benchmark, stakes and preparation for IFOM CSE examinees may differ substantially and should be taken into consideration when making comparisons.

### ***International Comparison Group (ICG)***

The International Comparison Group (ICG) included 8,033 examinees from the Americas (25.0%), Asia including the Middle East (15.6%), Europe (29.9%) and Oceania (29.5%) taking the IFOM CSE in 2011-2016 during the final year of medical school. The mean score of the IFOM CSE ICG was 508 and the standard deviation was 89 points. As mentioned in the previous section, IFOM CSE is utilized for a variety of assessment purposes and the stakes as well as differences in educational level, preparation and motivation may affect performance. These factors should be considered when interpreting performance relative to the ICG as most ICG examinees tested for formative or summative purposes in a low stakes context.

### ***Examination Feedback***

Each examinee is provided with a Performance Report showing the total test standard score and a Performance Profile displaying individual strengths and weaknesses for major content areas.

### ***Norm Table***

The norm table below may be used to compare a score on the 2017 IFOM CSE with the performance of the International Comparison Group (ICG). To determine the percentile rank in this group, locate the score in the column labeled Total Test Standard Score. The number that is located in the adjacent column labeled Percentile Rank indicates the percentage of participants in the ICG scoring lower than that score. Caution should be used in interpreting performance relative to this group due to differences in examinee preparation and motivation.

***Norm Table Based on the IFOM CSE International Comparison Group***

<b>Total Test Standard Score</b>	<b>Percentile Rank</b>	<b>Total Test Standard Score</b>	<b>Percentile Rank</b>
700 and above	98	500	45
680	97	480	36
660	96	460	28
640	93	440	21
620	91	420	15
600	86	400	11
580	80	380	7
560	73	360	5
540	65	340	3
520	55	320	2
		300 and below	1

### **Approximate Correspondence with USMLE Step 2 CK Performance**

The IFOM CSE is intended to determine an examinee's relative areas of strength and weakness in general areas of clinical science, not to predict performance on the USMLE Step 2 Clinical Knowledge (CK) examination, and the content covered by the two examinations is somewhat different. However, because there is substantial overlap in content coverage and many IFOM items were previously used on USMLE Step 2 CK, it is possible to roughly project IFOM performance onto the USMLE Step 2 CK score scale. The table below provides this information.

To use the table, locate an IFOM score in the associated column and look up the corresponding entry in the column labeled Step 2 CK Scale. For example, if an examinee's score is 500, the corresponding entry of 162 indicates that the examinee's performance on the 2017 IFOM CSE corresponds approximately to a Step 2 CK score of 162. The IFOM CSE score is not the same as, and cannot be used in place of, a USMLE Step 2 CK score.

<b>Approximate Correspondence of IFOM CSE And USMLE Step2 CK Scores</b>	
<b>IFOM Score</b>	<b>Step 2 CK Scale</b>
700	244
680	238
660	231
640	223
620	216
600	208
580	199
560	190
540	181
520	171
500	162
480	151
460	141
440	131
420	120
400	110

Mean Performance of examinees from U.S. and Canadian medical schools taking USMLE Step 2 CK for the first time in the 2015-2016 academic year is 242.

The Step 2 CK Minimum Passing Score as of 1/1/2017 is 209.