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

The NBME® International Foundations of Medicine (IFOM) Basic Science Examination (BSE) measures competency in the fundamental sciences relevant to the practice of medicine internationally. The emphasis is on the principles and mechanisms underlying health, disease and modes of therapy. Test material is designed to measure application of basic science knowledge in a clinical context.

IFOM BSE Scores
The 2017 IFOM BSE scores were scaled to have a mean of 500 and a standard deviation of 100 based on the 2011 IFOM BSE scaling group. This scaling group included the total group of examinees who took the 2011 IFOM BSE. This group included students from Asia including the Middle East, Europe and Oceania.

The 2017 IFOM BSE is administered in both paper and pencil and web formats. Caution should be used in the interpretation of scores as the modality of the test administration may affect performance for some examinees.

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 33 points for the IFOM BSE. 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 BSE Scores
The IFOM BSE is used for a variety of purposes by both individuals and institutions. Individuals use IFOM BSE 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 BSE for formative and summative assessment, curriculum evaluation and international benchmarking. Post-graduate programs use IFOM BSE for selection of graduates for training. Ministries of health/education use IFOM BSE as part of assessment for regional certification.

As implied based on the variety of uses of IFOM BSE, it may be utilized for both high-stakes and low-stakes assessment purposes. The stakes for the examinee taking the IFOM BSE 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 BSE to performance based on a different use. These factors should also be considered when interpreting IFOM performance relative to Step 1 performance and the Step 1 minimum passing score. Step 1 is a very high-stakes examination that is taken after intense preparation. While the IFOM BSE score of 595 that corresponds approximately to the Step 1 minimum passing score is useful as a benchmark, stakes and preparation for IFOM BSE examinees may differ substantially and should be taken into consideration when making comparisons.

International Comparison Group (ICG)

The International Comparison Group (ICG) included 3,097 examinees from the Americas (20.8%), Asia including the Middle East (31.0%), Europe (21.5%) and Oceania (26.7%) who took the IFOM BSE in 2011-2016. The mean score of the IFOM BSE ICG was 456 and the standard deviation was 106 points. As mentioned in the previous section, IFOM BSE 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 BSE with the performance of the BSE 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 BSE International Comparison Group

Total Test Standard Score	Percentile Rank	Total Test Standard Score	Percentile Rank
700 and above	98	500	69
680	97	480	62
660	96	460	56
640	95	440	48
620	92	420	39
600	90	400	32
580	88	380	25
560	84	360	18
540	80	340	13
520	75	320	8
		300 and below	5

Approximate Correspondence with USMLE Step 1 Performance

The IFOM BSE is intended to determine an examinee's relative areas of strength and weakness in general areas of basic science, not to predict performance on the USMLE Step 1 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 1, it is possible to roughly project IFOM performance onto the USMLE Step 1 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 1 Scale. For example, if an examinee's score is 500, the corresponding entry of 163 indicates that the examinee's performance on the 2017 IFOM BSE corresponds approximately to a Step 1 score of 163. The IFOM BSE score is not the same as, and cannot be used in place of, a USMLE Step 1 score.

Approximate Correspondence of IFOM BSE and USMLE Step 1 Scores	
IFOM Score	Step 1 Scale
800	253
780	247
760	241
740	235
720	229
700	223
680	217
660	211
640	205
620	199
600	193
580	187
560	181
540	175
520	169
500	163
480	157
460	151
440	145
420	139
400	133

Mean Performance of examinees from U.S. and Canadian medical schools taking USMLE Step 1 for the first time in 2015 is 229.

The Step 1 Minimum Passing Score as of 1/1/2017 is 192.