American Board of Emergency Medicine

Understanding Standard Setting

ABEM's guiding principles for physician assessment are validity, reliability, and fairness. One of the ways fairness is ensured is for the passing score to be determined by a rigorous psychometric process call "standard setting." By using standard setting, ABEM avoids setting an arbitrary passing score. Also, using standard setting with criterion referencing, any physician who meets ABEM's rigorous standards can become ABEM certified.

Standard setting for ABEM examinations regularly occurs after any significant change in the practice of the specialty or any significant change to the ABEM examination content or process. Even without major changes, standard setting is done every five-to-seven years to account for any slow, incremental changes in practice.

How it Happens

As an example of standard setting, the written Qualifying Examination (QE) is used in the example below. Of note, standard setting occurs soon after a test is given. It is important to do so after for reasons that are apparent from the discussion below.

When setting a passing score, ABEM empanels a group of 20-24 clinically active emergency physicians who are not on the Board of Directors. Physicians are sought from throughout the United States. ABEM seeks clinically active physicians from varied demographic groups and backgrounds that can include practice setting (community versus academic), race/ethnicity, geographic location, gender, and years in practice.

This panel of physicians are brought together for training. One of the key components of standard setting is for the physician panelists to have a shared definition of the knowledge, skills, and abilities that differentiate physicians who should be ABEM certified from physicians who should not be ABEM certified. This process defines a physician who is called in psychometric terms a "minimally competent candidate." Though this is not a medical term that is commonly used, it is a concept and definition that is a psychometric best practice.

The physician panelists then take and score the QE examination. Each individual panelist then estimates the percentage of minimally competent physicians who, based on their expert judgment, *would* have gotten the correct answer for each question. After these estimates are collated, the panelists receive the actual performance of all physicians who took the QE. This feedback serves as a reality check for the panelists. In addition, the panel is guided through a structured discussion on items where panelists lacked consensus. Panelists are then permitted to modify their judgments in a second round. Once the second round is completed, all item-judgments are aggregated, and the panelists are presented with the passing score they will recommend to the Board. The Board then reviews the work of the panel and makes a final determination of what the passing score will be.

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