Background
In the Bridges curriculum, multiple choice questions (MCQs) on weekly checkpoints reinforce core medical knowledge and application of that knowledge, and provide students with practice answering MCQs in preparation for clerkship exams and the Step 1 and 2 licensing exams. MCQs should be written following the guidelines for item writing used for clerkship and licensing exams, as described below.

Exam questions, general rules:
- Exam content should match course objectives
- Important topics should be weighted more heavily than less important topics
- Testing time devoted to each topic should reflect the relative importance of the topic
- You cannot ask everything, so you’ll have to sample topics
- The sample of items should be representative of the instructional goals

One-best-answer questions are the most widely used multiple-choice-item format. They consist of a stem (eg, a clinical case presentation) and a lead-in question, followed by a series of choices, typically one correct answer and four distractors. This format is preferred over true/false statement questions, since it is often impossible to provide options that are absolutely true or false with no ambiguity.

The Basic Rules for One-Best-Answer Items
1. Each item should focus on an important concept, typically a common or potentially catastrophic clinical problem. Don’t waste testing time with questions assessing knowledge of trivial facts. Focus on problems that would be encountered in real life. Avoid trivial, “tricky,” or overly complex questions.

2. Each item should assess application of knowledge, not recall of an isolated fact. The item stems may be relatively long; the options should be short. Clinical vignettes provide a good basis for a question. For the clinical sciences, each should begin with the presenting problem of a patient, followed by the history (including duration of signs and symptoms), physical findings, results of diagnostic studies, initial treatment, subsequent findings, etc. Vignettes may include only a subset of this information, but the information should be provided in this specified order. For the basic sciences, patient vignettes may be very brief; “laboratory vignettes” are also appropriate.

3. The stem of the item must pose a clear question, and it should be possible to arrive at an answer with the options covered. To determine if the question is focused, cover up the options and see if the question is clear and if the examinees can pose an answer based only on the stem. Rewrite the stem and/or options if they could not.

Adapted from NBME “Constructing Written Test Questions For the Basic and Clinical Sciences”; 3rd Edition. See the complete NBME guide for details and specific examples: http://www.nbme.org/publications/item-writing-manual.html
4. **All distractors (ie, incorrect options) should be homogeneous.** They should fall into the same category as the correct answer (eg, all diagnoses, tests, treatments, prognoses, disposition alternatives). Rewrite any dissimilar distractors. Avoid using “double options” (eg, do W and X; do Y because of Z) unless the correct answer and all distractors are double options. Rewrite double options to focus on a single point. All distractors should be plausible, grammatically consistent, logically compatible, and of the same (relative) length as the correct answer. Order the options in logical order (eg, numeric), or in alphabetical order.

5. **Avoid technical item flaws that provide special benefit to “testwise” examinees or that pose irrelevant difficulty.**
   
a. **Testwise examinees guess the correct answer based on cues:**
   - Grammatical cues - one or more distractors don't follow grammatically from the stem
   - Logical cues - a subset of the options is collectively exhaustive
   - Absolute terms - terms such as “always” or “never” are in some options
   - Long correct answer - correct answer is longer, more specific, or more complete than other options
   - Word repeats - a word or phrase is included in the stem and in the correct answer
   - Convergence strategy - the correct answer includes the most elements in common with the other options

b. **Items that pose irrelevant difficulty:**
   - Options are long, complicated, or double
   - Numeric data are not stated consistently
   - Terms in the options are vague (eg, “rarely,” “usually”)
   - Language in the options is not parallel
   - Options are in a nonlogical order
   - “None of the above” is used as an option
   - Stems are tricky or unnecessarily complicated
   - The answer to an item is “hinged” to the answer of a related item

Do NOT write any questions of the form “Which of the following statements is correct?” or “Each of the following statements is correct EXCEPT.” These questions are unfocused and have heterogeneous options.

Subject each question to the five “tests” implied by the above rules. If a question passes all five, it is probably well-phrased and focused on an appropriate topic.

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