AMERICAN COLLEGE OF SURGEONS
*Inspiring Quality:*
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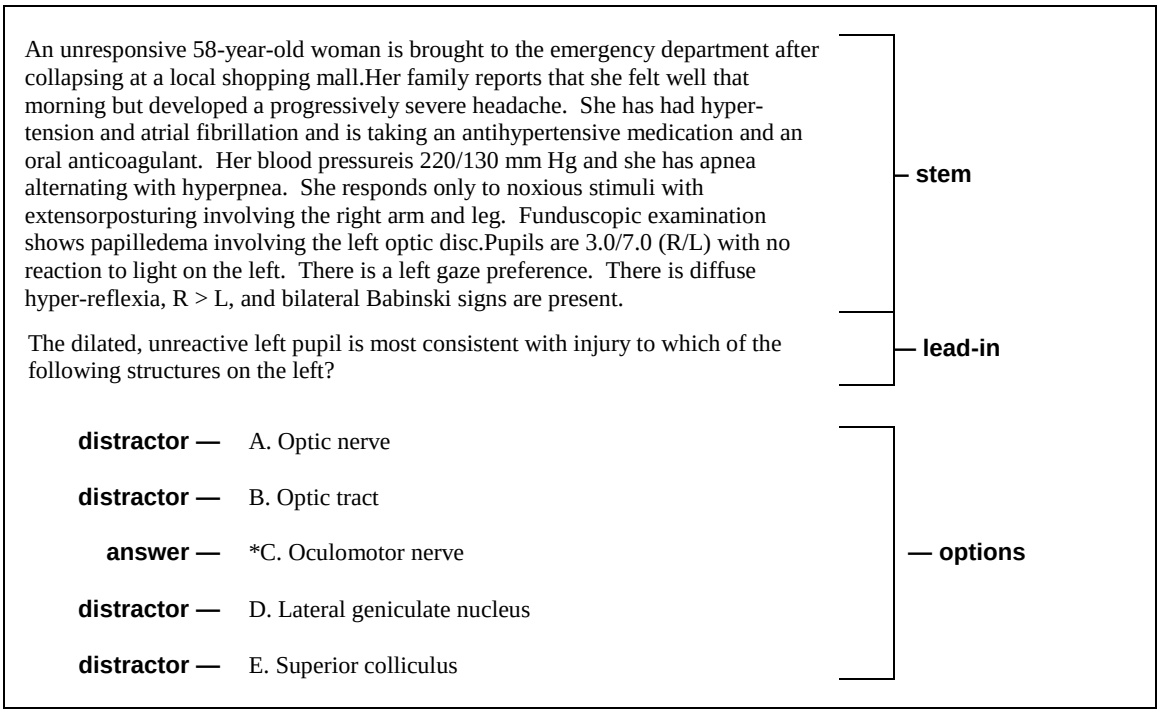
# GUIDELINES FOR CONSTRUCTING MULTIPLE-CHOICE CLINICAL CASE PRESENTATIONS

A standard multiple-choice question consists of two standard parts: a problem (*stem*) and a list of suggested solutions (*options*). The stem is best written in the form of a complete statement. The list of options contains one correct or best option (*answer*) and a number of incorrect or inferior options (*distractors*). When constructing a clinical case presentation, the stem includes a patient vignette. Components of a patient vignette are below:

- Age, Gender (e.g., A 45-year-old man)
- Site of Care (e.g., comes to the emergency department)
- Presenting Complaint (e.g., because of headache)
- Duration (e.g., that has continued for 2 days).
- Patient History (with Family History?)
- Physical Findings
- +/- Results of Diagnostic Studies
- +/- Initial Treatment, Subsequent Findings, Etc.

The patient vignette is followed by one or more lead-in questions and (4-5) options. See example below:




This document provides guidelines to writing good multiple-choice items and concludes with a checklist when reviewing each multiple-choice item.

## Test items

- Construct each item to assess a single written objective.
- Make sure the item can be answered without looking at the options.
- Avoid "tricky" and overly complex items.
- Avoid textbook, verbatim phrasing
- Use proper grammar, punctuation, and spelling.
- Present the answer in each of the option positions approximately an equal amount of times, and in random order.

* *Focus on important concepts; don't waste time testing trivial facts*.

## Stems

- Base each problem on a specific item stated clearly in the stem.
- Include as much of the item in the stem, but do not include irrelevant material.
- State the stem in positive form (in general).
- Avoid superfluous information.
- Avoid negatively phrased items (e.g., those with *except* or *not* in the lead-in question).
- Don't begin stems with the phrase, "Which of the following is true (or false)?" or "Each of the following statements is correct EXCEPT."

## Options

- Word the options clearly and concisely.
- Use plausible distractors.
- Include one and only one correct or clearly best answer in each item.
- Write options that are grammatically consistent and logically compatible with the stem; list them in logical or alphabetical order.
- Write distractors that are plausible and the same relative length as the answer.
- Avoid using absolutes such as *always*, *never*, and *all* in the options; also avoid using vague terms such as *usually* and *frequently*.
- Avoid using *none of the above* or *all of the above* as an option.
- Do ask questions with a varying number of options.
- Keep the options mutually exclusive.
- Keep the options homogeneous in content.
- Keep the options free from clues as to which response is correct.
- Keep options parallel in form.
- Keep options similar in length.

### Reference

Case, S.M and Swanson, D.B. Constructing written test questions for the basic and clinical Sciences (3rd Edition, revised). Philadelphia, PA: National Board of Medical Examiners, 2002.