



European Board for Accreditation in Pneumology



SMART GUIDE:
HOW TO WRITE SUITABLE
MCQS

The importance of writing suitable MCQs

EBAP recommends that the CME activity participant's knowledge is tested. This will ensure that:

- › The participants did take part in the activity, were attentive and understood the delivered educational content
- › The educational methods used were appropriate
- › The targeted audience was appropriate

Therefore, the MCQs must be relevant to the educational material, must be clear and of a difficulty level that is appropriate to the audience.

We hope that the below will give you useful tips.

Content

The content of the question must be used frequently, must be relevant and important. Do not use rarities, subtleties or trivialities.

It is useful to identify the teaching/learning point before starting to write an MCQ.

Application of knowledge, not only theory

The question tests the application of knowledge, does not only test how the candidate recalls isolated theoretical facts.

Focused questions and homogeneous answers

The question focuses on one relevant aspect of the topic. All proposed answers belong to the same content dimension (i.e. diagnosis, or causes, or management decisions, etc).

Clear and unambiguous answer

The best answer should clearly stand out. Avoid correct answers with existing controversial doctrines.

Numeric data should be stated consistently to ensure the question and answers make sense.

Avoid using **none of the above** as an answer option, but instead substitute it with alternative actions (e.g.: discharge patient, observe patient, stop pharmacotherapy, etc.)

Appropriate level of difficulty

The appropriate level of difficulty lays between 50% - 90% correct answers.

If the question is too difficult, even the best candidates need to guess.

If the question is too easy, good candidates get confused, weak candidates get a present.

Unambiguous, concise and simple phrasing

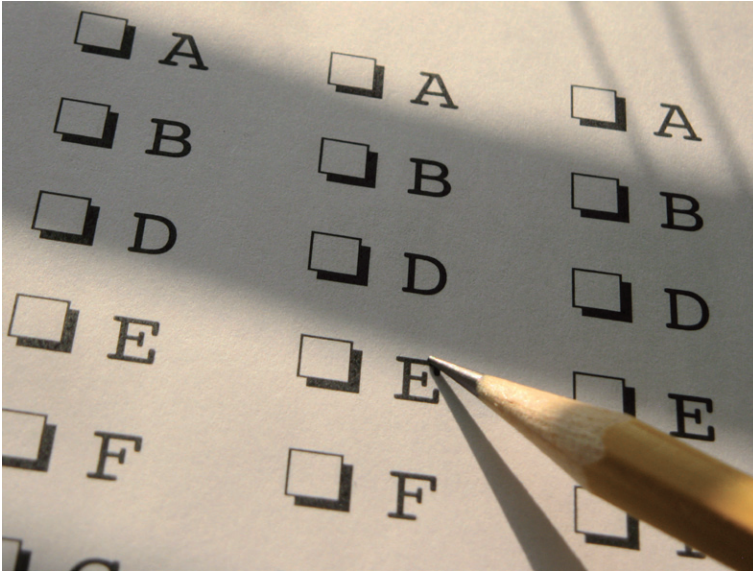
Avoid trick or unnecessarily complex questions as well as double negatives that would confuse participants and be unfair. Use only common abbreviations and short sentences.

Avoid imprecise qualifications such as **often**, **usually**, etc.

Avoid cues

Cues can help candidates guess the correct answer. Below are some examples of common cues:

- › One answer is much longer or more detailed than the others
- › Only one answer follows grammatically from the stem
- › Non logical order of the answers
- › A word is repeated in the stem and in the correct answer, or words are repeated in several answers, leading the participant to the appropriate response
- › Use of absolute terms, such as the word **never** in some of the answers



Question types

Type A questions: Single choice

For each question, there is only one correct or the most appropriate answer. The recommended number of possibilities for Type A questions is four or five. It is recommended to keep the number of answers consistent throughout the test to avoid confusion.

Type A-negative questions: Single choice

Some questions can also be negatively formulated.

For each question, there is only one incorrect answer, only one exception, or one answer that appears **least** appropriate. **The negation is written in bold so it can be clearly identified by the candidate.**

This type of question is indicated when the candidate must identify an important exception or something that must not be done or given to a patient because it could cause serious harm.

Be careful not to misuse this type of question however, as very often they are not well focused and have heterogeneous answer options.

Type Kprime questions: Quadruple correct/incorrect decision

To each question or incomplete statement there are usually four answers or statement completions (less would be too easy, more, too difficult). For each statement it must be decided whether they are correct or incorrect and appropriately marked with a (+) for correct or (-) for incorrect.

Independent of the grammatical formulation of the question in singular or plural, 1, 2, 3, 4 or none of the answers may be correct.

Marking all four answers or completions correctly results in a full point; three correct marks result in half a point.

Please bear in mind the following recommendation when writing K-prime questions:

- › Question stem and answer options must be positively formulated whenever possible
- › Question stem must be phrased neutrally with regard to the number of correct answer options
- › Each answer option must unambiguously be correct or false
- › Each answer option must contain only 1 statement
- › Every answer option must be independent from the others
- › Correct and false answer options must be balanced throughout the test
- › Avoid having answer options to be all true or false

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