

The new Extended Matching Question (EMQ) paper of the MFSRH Examination

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Background

Extended Matching Questions (EMQs) will be introduced to the Part 2 written examination for Membership of the Faculty of Sexual and Reproductive Healthcare (MFSRH) in 2011. The present Short Answer Question (SAQ) paper will be replaced and work is well in hand to develop a bank of suitable questions, which beginning in late 2010 will be drawn upon in successive examinations. Thus, from 2011, the Part 2 written examination will have a paper in the new EMQ format and a Critical Reading Question paper also. To help candidates prepare for the examination, I thought it would be timely to introduce this concept to them in this paper.

Educational rationale

Historically there have been several types of written assessment used in medical examinations (Table 1). What is tested (simple recall versus problem solving, for example) is dictated by the format of the question. The choice of question type has important effects upon the reliability and validity of the examination and the educational impact of whatever model is chosen.¹ For example, it is possible with some question types [like the multiple-choice question (MCQ)] for the candidate to answer strategically and for the test to be less than an adequate measure of ability. Also, there may be topics which more easily fit certain types of questions, and so some topics may be neglected by the examiners.

The SAQ is variable in its properties. It can test creativity and spontaneity, but it has lower reliability than some of the other methods (reliability of a test measures the likelihood of the student achieving a similar score using another test in the same field). Compared with the MCQ, the SAQ does have the advantage that it tests critical understanding, rather than simple recall, but it has the disadvantage of requiring the candidate to second guess what it is that the examiner requires and will reward. The SAQ also is less reliable than the EMQ, less suitable for broad sampling, and expensive to use (i.e. to produce and mark). The marker has to have a detailed breakdown of what constitutes a correct or model answer. It may also disadvantage the candidate for whom English is not their first language.

The Extended Matching Question (EMQ)

Compared with the question types mentioned above, the EMQ has good reliability and scoring is easier. The 'recognition effect' is minimised, and guessing answers is harder, as more complex understanding is tested. Research evidence shows that EMQs are also fair.² Examiner bias is eliminated as the EMQs will be computer-marked. Some themes do not fit the EMQ format but the plan for the

MFSRH Examination is to try to cover aspects of the whole curriculum of the new training programme in community sexual and reproductive health. Therefore there will be questions on contraception, gynaecology, genitourinary medicine, public health and the rest of the curriculum, with the proportion of each subject being determined by the proportion of representation of each module in the curriculum. In addition, testing topics of great importance may be emphasised. It is recognised that for the first few years after the introduction of the EMQ paper, candidates will not be training under the new curriculum (e.g. they will be Subspecialty SRH or Career Grade Trainees). These candidates will not be discriminated against; as all of the topics are in the current syllabus and they will have covered all topics presented in the paper.

Practicalities

The EMQ paper will be 2 hours and 80 questions in length. There will be no negative marking. The EMQ will be titled; there may be more than one question for each EMQ title. The format of a question is built around an alphabetical or numerical list of *options*, a lead-in *statement or paragraph* and some *questions* (clinical scenarios or *items* as they are known). The *theme* of the EMQ will be in the title (Box 1).

Table 1 Types of written questions used for assessment

- True-false
- Single best option
- Multiple true-false
- Short answer (open-ended)
- Essay
- Key feature
- Extended matching

Box 1: The Extended Matching Question (EMQ)

An EMQ has four parts:

- Title
- List of options
- Lead-in statement
- Questions (items or scenarios)

Box 2: Tips for candidates preparing to sit the Extended Matching Question (EMQ) examination paper

- Prepare thoroughly, making sure that you cover all of the aspects of the MFSRH curriculum.
- Relate your reading to reflection of clinical experience, as the EMQ is designed particularly to test applied knowledge in the form of clinical reasoning.
- Read the lead-in statement and questions most carefully.
- Try and work out the answer to the question before looking at the list of options.
- Then choose the most appropriate option from the list, remembering that there may be distractors.
- If any particular EMQ is difficult to understand, leave it and come back to it later. As there is no negative marking, answering all the questions is important.
- Practice, practice, practice. At present, there are no resources of sexual and reproductive healthcare (SRH) EMQs. However, familiarity with the format of the process will be helpful. There are many books on EMQs to help prepare for the MRCOG. There are SRH topics in these books such as termination of pregnancy, contraception, menopause and genitourinary medicine.

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Answer Sheet

1	A B C D E F G H I J K L M N O P Q R S T
2	A B C D E F G H I J K L M N O P Q R S T
3	A B C D E F G H I J K L M N O P Q R S T
4	A B C D E F G H I J K L M N O P Q R S T
5	A B C D E F G H I J K L M N O P Q R S T
6	A B C D E F G H I J K L M N O P Q R S T
7	A B C D E F G H I J K L M N O P Q R S T
8	A B C D E F G H I J K L M N O P Q R S T

This is an example of an answer sheet

Example Questions

Example 1 Early pregnancy problems

A Complete miscarriage
B Delayed miscarriage
C Ectopic pregnancy
D Incomplete miscarriage
E Inevitable miscarriage
F Missed miscarriage
G Pregnancy of uncertain viability
H Ruptured ectopic pregnancy
I Threatened miscarriage
J Viable pregnancy

This is the title

These are the options

This is the lead-in statement

For each scenario described below, choose the SINGLE most likely diagnosis from the above list of options. Each option may be used once, more than once, or not at all.

This is a question or item

Question 1 A 29-year-old woman attended Accident and Emergency. She had had an episode of severe pain under her right breast the previous day. This was so severe she had fallen to the floor and had lacerations over her face and nose. This pain had lasted for 10 minutes. Since then she has felt well. She had been having progesterone-only contraceptive injections; the last one 7 months previously. Since then she had not been using any method of contraception. A pregnancy test was positive. Her observations were all normal, there was some tenderness over the liver on deep palpation but otherwise abdominal examination was normal. An ultrasound scan showed an endometrial thickness of 13 mm. Both ovaries were normal. There was up to 1.5 litres of fluid in the abdominal cavity.

This is the answer

Answer: H Ruptured ectopic pregnancy

Question 2 A teenager has had an ultrasound scan in an unplanned pregnancy assessment clinic. The report documents an intrauterine gestational sac measuring 36 x 28 x 25 mm. No yolk sac or fetal pole is seen. Both ovaries appear normal.

Answer: B Delayed miscarriage

Example 2 Genital ulcer disease

A Candidal vulvitis
B Chemical dermatitis
C Fragile vulva syndrome
D Genital herpes simplex infection
E Primary syphilis
F Traumatic ulcer
G Varicella zoster infection
H Vulval eczema
I Vulval squamous carcinoma

The list of options contains causes of genital ulceration. For each of the scenarios in the items below select the SINGLE most likely cause from the list of options. Each option may be used once, more than once or not at all.

Question 3 A woman presents with multiple, painful ulcers on both labia. She says that it is painful to pass urine. While talking to her, you notice she has a facial cold sore.

Answer: D Genital herpes simplex infection

Question 4 A woman presents with a copious, green, irritant vaginal discharge. Clinical examination shows a dusky erythema of the vaginal epithelium and linear excoriations on the labium majus. Microscopy of the discharge shows flagellated protozoa.

Answer: F Traumatic ulcer

[NB. Traumatic excoriations in trichomonal infestation, causing irritation and scratching, are technically ulcers – an ulcer is simply ‘a break in an epithelial surface’. The answer is not simply *Trichomonas vaginalis* (TV) as TV is not in the list of options!]

Figure 1 Examples of Extended Matching Questions (EMQs) and the answer sheet

Within the list of options there may be 'distractors' – options that *might* be correct answers but, in fact, are not correct but plausible nevertheless. An option may be suitable to more than one question and some options may not be used at all. There will be one to four questions per option list. The candidate must choose the single most appropriate option answer for each question to achieve a correct score. It is possible for each option list to have 20 possible answers to fill in, but it is likely that each will have 8 to 12. Although the answer sheet will provide 20 possible answers, lettered A–T, the option lists for questions may not use all of these. The answer sheet is suitable for marking by computer. Some example questions are shown in Figure 1.

Because the EMQ tests realistic clinical scenarios, it is somewhat more authentic than other test formats. Therefore good clinical reasoning skills will help the candidate to tackle this part of the paper – diagnosis, management and investigation may be tested. When asked to write questions examiners are encouraged to make the option list homogenous (i.e. options widely different to each other are avoided). The questions will be precise. This means that the candidate should have a clear idea of what is needed at the first or second reading. The options will be short, but the questions may be fairly long. Candidates should be assured that their task will be helped by the construction of clear questions, so that the task required of them will also be clear. The construction of questions, and their addition to the question bank, is a carefully-controlled process, where each new question is critically analysed and edited by other question writers, and the process is strictly quality controlled

by the MFSRH Examination Committee. The candidate should be able to formulate a correct answer to the question without reading the list of alphabetised options! (Box 2).

Conclusions

The EMQ will be introduced into the MFSRH Part 2 Examination in 2011, and will replace the current SAQ question paper. EMQs are fair, reproducible, valid, authentic, and test clinical reasoning. Candidates should be reassured that, with a little practice, the format is easily mastered and the questions will be representative of the new curriculum in Community Sexual and Reproductive Health of the FSRH. There will be no topic not on the current MFSRH Examination syllabus.

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NB. The Royal College of Obstetricians and Gynaecologists (RCOG) bookshop is a good resource for accessing EMQ books. A list of suitable EMQ books in obstetrics and gynaecology may be accessed on the FSRH website (www.fsrh.org).



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