

European Board Examination in Emergency Medicine

Example MCQs.

The Part A of the EBEM consists of 120 multiple choice questions (MCQ) which cover the European Curriculum for Emergency Medicine. The following is a sample of 10 MCQ which have already appeared in recent Part A examinations and are of the type that you would expect to find in the exam. Half of the mcq's will be in the "best out of 5" format and the other half are of the "True/False" variety. 20% of questions test applied basic sciences and the rest are clinical questions.

These practice questions are meant to support applicants in preparing and to allow applicants to understand their approach to the application of knowledge.

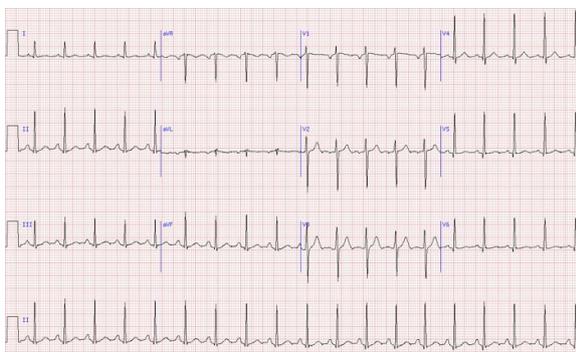
Question 1. An 87 year old woman is brought to the Emergency Department by her nephew after she allegedly fell from her bed. You would be highly suspicious of elder abuse if you find:

- a) contusions on the inner thigh T
- b) multiple injuries in various stages of healing T
- c) hand burns F
- d) traumatic alopecia F
- e) midshaft ulnar fracture T

This is a multiple true-false question. one or more of these answers are correct. The successful candidate will know that there are specific injuries that are associated with elder abuse and therefore should point the doctor to taking action. Elderly patients who fall do not bruise their inner thigh in general, multiple injuries at different times is uncommon in a first presentation and a midshaft ulna fracture is an unusual injury except in someone who has put their arm up to protect their face.

The curriculum section is – 3.4.1 Abuse and assault in adults and children

Question 2. A 45 year old male presents with palpitations. His ECG is shown below. Which of the following conditions are possible causes?



- a) Hypothyroidism F
- b) Hyperthyroidism T
- c) Hyperpyrexia T
- d) Hypothermia F

e) Dehydration T

This is another multiple true/false question. The ECG effectively shows just a sinus tachycardia and so the three diagnoses that are possible should reflect that.

The curriculum section is – 3.3.16 Palpitations

Question 3. - A 38 year old hairdresser presents with a 2 day history of localised pain and tenderness in her leg. Appropriate management of this condition includes:



- a) Non-steroidal anti-inflammatory drugs T
- b) Antibiotics F
- c) Anticoagulation F
- d) Bed rest F
- e) Compression stocking F

This is another multiple true –false question. Even though you may not recognise this as a superficial thrombophlebitis, it is important to be able to recognise it is not a DVT or cellulitis. Equally bed rest is not a recommended treatment for minor inflammation and compression stocking is unlikely to help.

Curriculum section – 3.3.15 Pain in legs

Question 4. A 2 year old child is brought to the ED with undifferentiated shock. The following are common causes of shock in this age group:

- a) Arrhythmias F
- b) Gastroenteritis T
- c) Intussusception T
- d) Cardiac tamponade F
- e) Peritonitis F

A multiple true-false question. Young children do not get arrhythmias as a rule, and cardiac tamponade and peritonitis are uncommon in small children. Intussusception is not common in itself but as a cause of undifferentiated shock it is relatively common.

Curriculum section – 3.3.18 Shock in adults and children

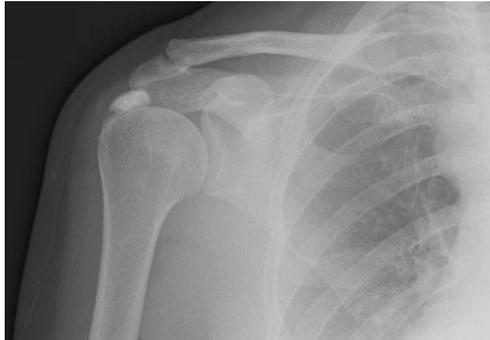
Question 5. A 24 year old woman who is 9 weeks pregnant presents with hyperemesis. She is clinically dehydrated and you start treatment with IV fluids and anti-emetics. Which one of the following is most useful as a guide to further treatment for her hyperemesis?

- a) Postural hypotension
- b) Serum urea level
- c) Serum creatinine level
- d) Urinary ketones**
- e) Urine specific gravity

This is a single best answer question. Serial blood tests are not ideal for monitoring a dynamic clinical situation and postural hypotension is common in pregnant women anyway. Urine ketones is the most useful guide to further treatment.

Curriculum section – 3.3.23 Vomiting

Question 6. A 45 year old man presents with a 3 day history of acute pain in his right shoulder especially on abduction. He had a minor fall onto his shoulder 2 weeks ago. The shoulder X ray is shown. What is your diagnosis?



- a) Fractured acromion
- b) Foreign body
- c) Calcific tendinitis**
- d) Loose body
- e) Calcified avulsion fracture

This is a single best answer question. The bony contours are normal hence this cannot be a fracture or a loose body. There is no suggestion of penetrating injury so the only answer can be calcific tendinitis.

Curriculum section – 3.3.14 Pain in arms

Question 7. A 30 year old woman presents to the ED 12 hours after swallowing 34 tablets of paracetamol 500mg. On arrival: HR 120/minute, BP 110/80 mmHg, RR 20/ minute. The most important initial management step is:

- a) administration of activated charcoal
- b) **administration of N Acetyl cysteine**
- c) transfer to the liver transplant unit
- d) referral to psychiatry for review
- e) checking paracetamol level

This is a single best answer question. with an ingestion of 17g at 12 hours – this is a significant poisoning; it is too late to give charcoal and psychiatry is not important as a first step. Whilst paracetamol levels are important and it might be relevant to have transfer to the liver transplant unit, the single most important first step is to start the antidote.

Curriculum section – 3.4.9 Toxicology

Question 8. - A 40 year old man who suffers from ulcerative colitis recently stopped his sulphasalazine medication and presents with generalised abdominal pain. He appears pale and dehydrated. On arrival: Temperature 39°C, HR 120/minute, BP 95/60. An abdominal X ray is taken (shown). Expected lab findings with this condition include:



- a) Leucocytosis- T
- b) Hypokalaemia _T
- c) Raised CRP -T
- d) Raised serum lipase F
- e) Raised serum amylase F

This is a multiple true/false question. The picture is of toxic megacolon, or if not recognised as such (history of UC) it should be obvious there is obstruction of the large bowel. This raises the CRP and white cells because of the inflammatory nature of the condition, and also leads to translocation of fluid including potassium – hence the low serum potassium,. There is no reason for a raised lipase and amylase may go up if there is perforation but not generally.

Curriculum section – 3.2.6 Gastrointestinal emergencies in adults and children

Question 9. A manager asks why you have a nurse see the patient in triage before the doctor sees the patient. He thinks this is a waste of resources. You explain the purpose of triage systems is to:

- a) examine the patients thoroughly
- b) expedite the provision of healthcare
- c) diagnose all life-threatening injuries
- d) **prioritise according to the acuity of the presentation**
- e) reduce the costs of the provided healthcare

This is a single best answer. The origin of triage is based in warfare where the volume of casualties outstrips the capacity to manage the patients so prioritisation is essential. In civilian medicine this is now important to ensure the sickest or most severely injured are seen first – hence D is correct. It is not possible to examine or diagnose all injuries during what should be a brief (2-3 minute max) contact with the patient. It serves the purpose of expediting care but only to those who are most acute – those who can wait are identified and then do wait.

Curriculum section –3.4.3 Disaster Medicine

Question 10. A 23 year old woman presents with a history of lower abdominal pain, abnormal vaginal discharge, dyspareunia, fever, nausea and vomiting for 5 days. The most likely diagnosis is:

- a) Acute appendicitis
- b) Ruptured ovarian cyst
- c) Ovarian torsion
- d) **Pelvic inflammatory disease**
- e) Acute pyelonephritis

This is a single best answer question. Ovarian accidents are not commonly associated with fever and discharge. Whilst pyelonephritis and appendicitis might cause fever, nausea and vomiting, it would be unlikely that vaginal discharge would occur and dyspareunia is uncommon in either. Therefore it has to be Pelvic inflammatory disease

Curriculum section – 3.2.7 Gynaecology and obstetric emergencies