SAQ

TRAINING DAY

EASTERN DEANERY

15 January 2009

SAQs presentation by Dr Berto Bauza

Glossary of terms used in College examinations

The CEM uses several terms in examinations that may cause confusion. The following definitions are intended as a guide to the understanding of these terms. It is important to read the questions carefully and to understand the term in the context of that question. Examiners and candidates are advised to be rigorous in the use of these terms.

Abnormality

This is any feature in an examination or investigation which is outside the standard deviation of the population being studied. A **Clinical** abnormality however would be a pathologically relevant abnormality and would not include the presence of tubes, prostheses etc.

Assessment

History taking, physical examination and use of investigations.

Class of drug

This is the generic name for the type of drug with a particular pharmacological affect e.g. anticoagulant, antihypertensive etc.

Clinical findings

This may include symptoms, signs and vital signs. It is information gleaned from the clinical evaluation, but not the results of investigations even bedside ones (e.g. BM or Urine Dipstick)

Commonest/Common

>75% incidence, or prevalence

Condition

This would suggest a well know pathological entity or diagnosis that should be mentioned as contributing to the presenting complaint.

Criteria

This refers to the fact that there is a formal international/national guideline or scoring system that allows you to define the seriousness of a condition e.g. CURB-65 score for pneumonia etc.

Definitive management

This may include things you would do in the department but usually requires you to list the operation or procedure that will cure or contain the condition.

Disposition

Where the patient is sent following care in the Emergency Department including follow-up if discharged.

ED management

This requires you to list actions that are life or limb saving or that might improve the course of the condition if done within the ED. It is not definitive management. This may however include analgesia, referral to specialty team etc

Essential

This indicates life saving treatments/management steps that are the priority, and would not normally include things like analgesia, communication etc.

Factor

A contributing element or cause to the condition.

Features

When asked for in the context of a medical history – this may be either a symptom or a sign. If asked for key features, you should give the symptoms or signs that are definitive for that condition rather than general abnormalities that might be present.

When asked for in the context of an ECG or CXR – it might be a pathological abnormality, or might simply be the presence of an ETT or central line ie abnormality (see above).

Immediate

This indicates what you will do now, rather than include within the general list of investigations or treatments that a patient needs.

Implication

Something that is suggested or hinted at.

Indicators

This is used in the context of a clinical evaluation. It should include history, examination and investigations that might indicate that a particular diagnosis is likely.

Investigations

Specific tests undertaken to make a diagnosis or monitor the patient's condition. They may include bedside tests such as urine dipstick or BM unless otherwise specified.

Management

Aspects of care including treatment, supportive care and disposition. This does not include investigations.

Most likely

This requires the commonest or best know items. For example if asked for two most likely organisms causing a UTI – you should list E Coli and Klebsiella etc

Pathophysiological sequence of events

This requires you to list in time order, the events that happen on a cellular, or hormonal level, leading to the current condition. For example, if a lactate is high in the presence of sepsis, you could suggest –

Hypotension
Poor organ perfusion
Tissue hypoxia
Anaerobic metabolism
Glycolysis and lactate build up

Rarely <10% of the time

Symptoms

This is what the patient complains of

Signs

This is what you identify by examination, and may include abnormal observations/ measurements of vital parameters.

Strategy

This is your plan of action, and would normally include a list of investigations, prescriptions, physical treatments, in a particular order.

Treatment

Measures undertaken to cure or stabilise the patient's condition. This includes oxygen, fluids, drugs, and may also mean surgery. It does not include investigations.

Usual/normal >90% of the time

Prepared and edited using the ACEM glossary
February 2007

Reference:

Taken from College Website

1) **A thirty-five year old woman who is 38 weeks pregnant complains of headache and has a GCS of 13/15. Her observations and investigations are as follows:**

Pulse=110 BP=160/95

Hb	8	Poikilocytes Seen
WCC	9.3	
Plat	35	
Urea	10	
Cr	130	
Bili	15	
AST	150	
ALT	600	
Alk P	45	

Urine:Protein +++ Blood ++

What are the haematological abnormalities and what is the cause? (2 marks)

2. What is the diagnosis? (1 mark)

3. How would you control the blood pressure? (2 marks)

4. What are you next management steps? (5 marks)

2) A 27 years old female is referred by GP with presumptive diagnosis of PID.

a. Mention ***4 symptoms she may complain of:***

b. Mention 4 signs you may find:

c. Mention two common causative organisms

d. What Definitive test may help in the diagnosis?

e. Describe your Management

f. *What criteria you may use to Admit under gynae?*

3) 29-year- old woman presents with vague, lower abdo pain. Possible PID

What 3 minimum criteria are required to make the diagnosis?

1 extra (supporting) criteria

Name 2 serious complications

4. A 24 year old women presents to the ED with high fever, vomiting and diarrhoea. She has a widespread blanching macular erythematous rash and looks unwell. Her pulse is 120/min and her BP is 93/54. Her Temp is 39.4°C. She is currently on day 4 of her menstrual period. She is receiving 15l /min O2 and is receiving intravenous fluid bolus when your SHO asks you to see the patient. She is attached to continuous monitoring.

What important question you may ask that you can later find it on physical examination?

What is the most likely diagnosis? (1)

What is a usual causative organism? (1)

Other than oxygen and intravenous fluids, outline your initial management and investigations. (3)
(half mark each)

5. **A 42 year old female with alcohol dependence has a three day history of abdominal pain and a three month history of amenorrhoea. A photograph of her abdomen shows that it is swollen with some flank and peri-umbilical discolouration and some red spots.**

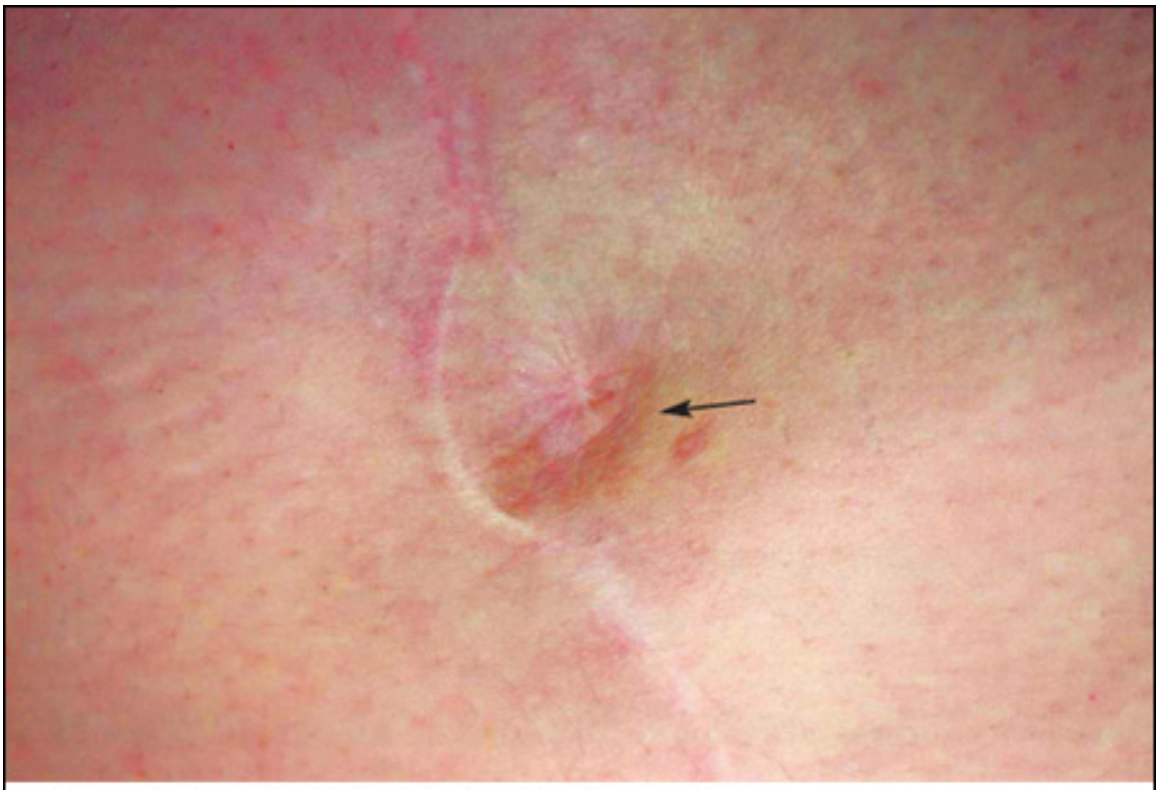


Figure - "Purplish" periumbilical ecchymosis (arrow).

a. ***What is the differential diagnosis?***

b. ***What does the photograph show?***

c. ***What two tests should be performed?***

d. ***Describe the initial management***

6. A 32 year old female patient presents with painless vaginal bleeding who is 10 weeks pregnant. Your SHO needs advice about indications for anti-D Ig.

Which patients need anti-D? (1)

Which blood test can we do to check for fetomaternal haemorrhage?(1)

Which conditions should you consider giving anti-D? (3)

7. Define the following in Pregnancy:

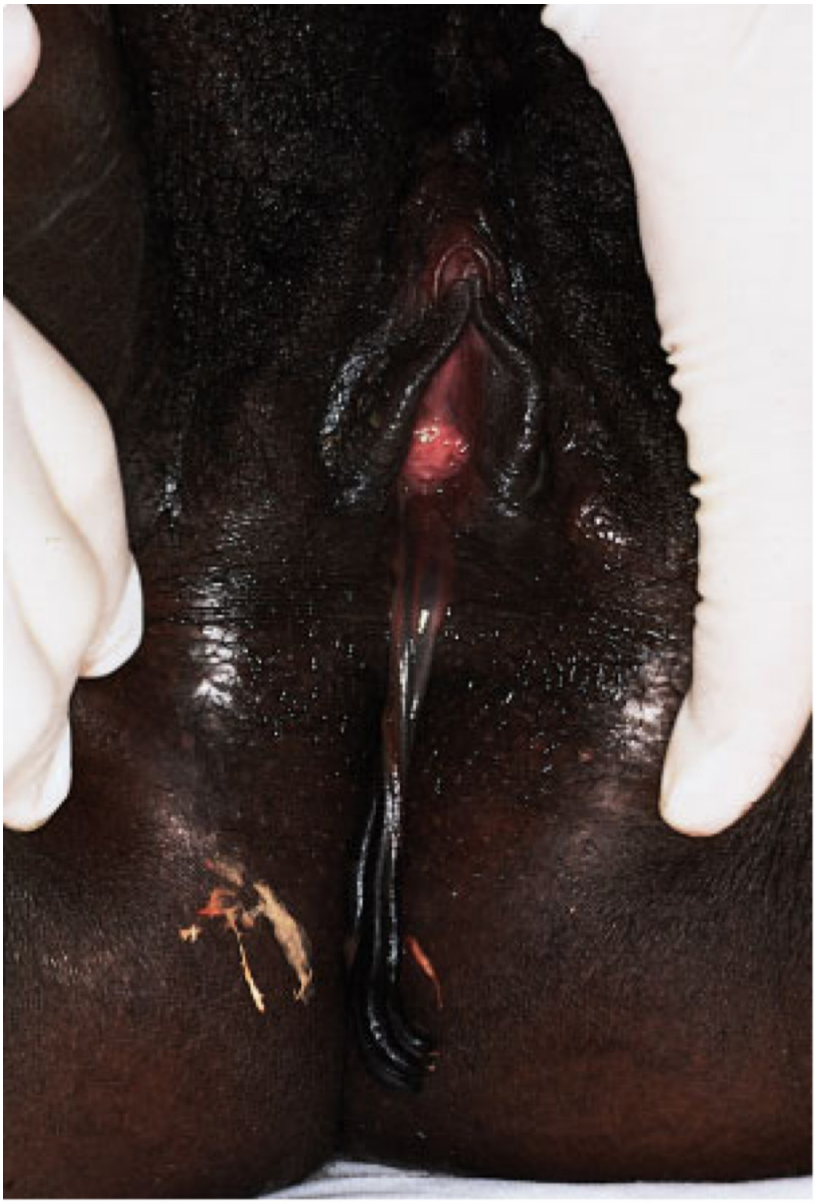
a. A preterm infant is born before:

b. Human chorionic gonadotropin (hCG) stimulates:

c. Fetal heart activity can be detected by which gestational age using Doppler?

d. The most common cause of death in eclampsia is

8. A 36 year-old-female 38/40 pregnant presents with abdominal pain.



Source: Knoop KJ, Stack LB, Storrow AB: *Atlas of Emergency Medicine*, 2nd Edition: http://www.accessemergencymedicine.com

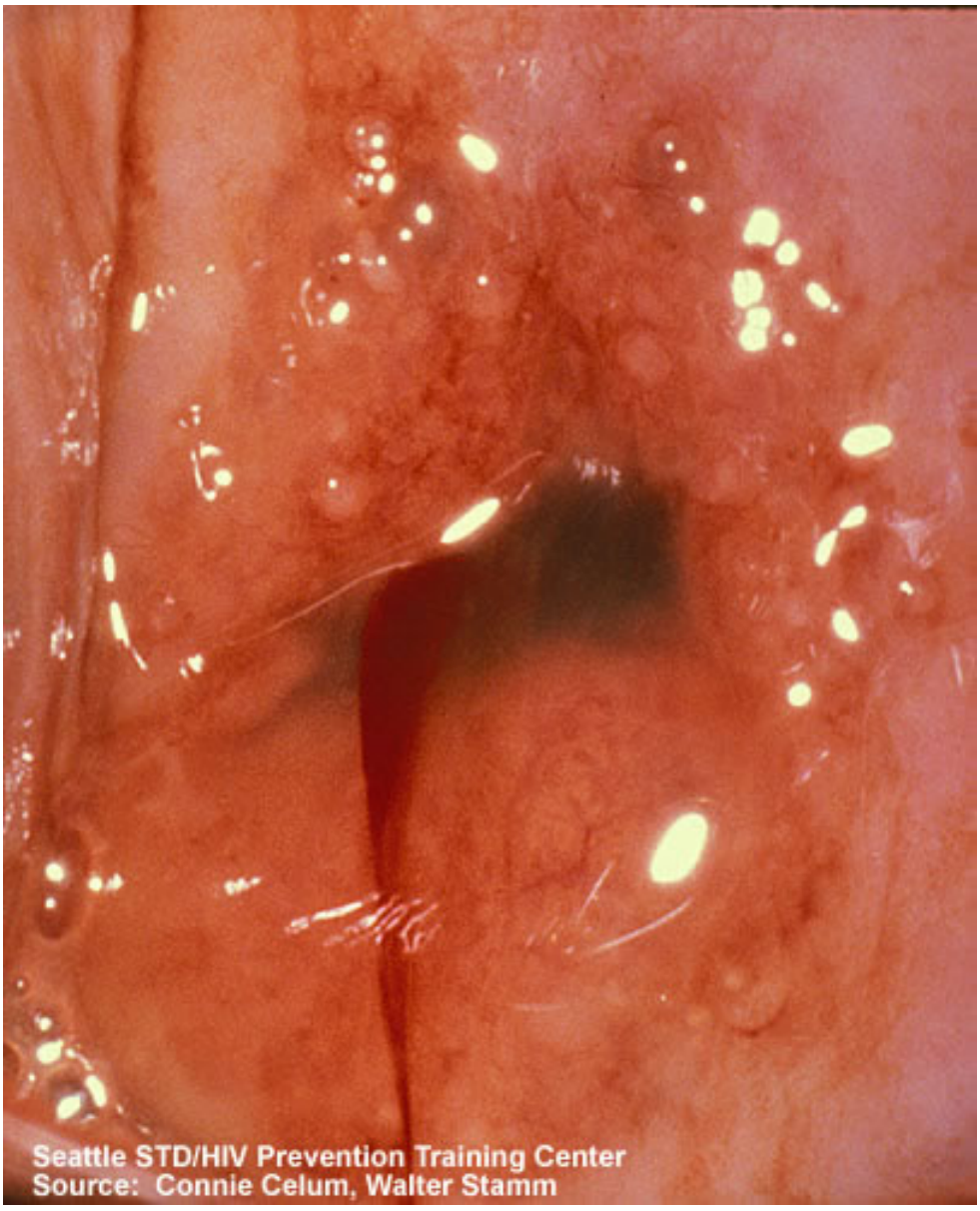
a. What is your diagnosis?

b. How do you manage this patient?

9. Victoria is a 21-year-old mother of 3 from EastHam. She presents with lower abdominal pain and an offensive discharge.

1. List 6 key features of a sexual history (3 points)

On speculum examination this is what you see.



2. What does this demonstrate? (1 point)

3. List 3 risk factors for this condition (2 points)

4. List 4 organisms that might cause this condition. (2 points)

5. List 4 steps in your management of this woman. (2 points)

10. A 38 year old woman comes in feeling rather unwell, complaining of a headache and nausea. She noticed that her ankles started swelling last couple of weeks and she is concerned as she is 32 weeks pregnant.

Describe the initial investigations and management of this patient.

(3 points)

What features would constitute a diagnosis of preeclampsia?

(1 point)

As you are attending to her patient suddenly becomes vacant and unresponsive. She then starts twitching on her mouth. Outline your management.

(4 Points)

What are the severity markers in preeclampsia?

(2 Points)

11. Reference normal pregnancy:

a. Mention three physiological changes in the Cardiovascular system

b. Mention three respiratory physiological changes

12. Emergency delivery

A 22 year old woman presents to the A&E department with severe cramping abdominal pain which she recognises as labour pains. This is her third child and her second child was a rapid but uneventful birth.

What would be your initial actions? (2 marks)

Before transfer to Labout ward can be arranged baby's head starts to appar at the vagina. Describe the process of Delivery (6 marks)

If the baby's head emerges but the shoulder does not, what action should you take? (2 marks)

13. A 67 year old smoker, with COPD, attends ED with an episode of collapse. She has recently lost weight and complained of feeling weak to her husband. On arrival she has a resting BP of 100/60 which drops to 80/38 on standing.

Her initial lab tests are as follows:
Na 125
K 6.2
Urea 7.9
Creat 98
Chloride 105
Bicarb 14

Meds: Ventolin accuhaler prn
Seretide accuhaler bd
Prednisolone 5mg od
(recently reduced from 20mg)

ABG shows a mild metabolic acidosis.
CXR shows a peripheral mass lesion on the right apex.

What is the likely diagnosis and give 4 possible causes. (3)

The ABG showed mild metabolic acidosis. Calculate the Anion Gap.(2)

3) Give 5 Causes of Metabolic Acidosis with an elevated anion gap. (5)

14. According to ATLS

a)List 6 immediately life threatening conditions in chest trauma (2 marks)

b)What criteria define Massive Haemothorax (2 marks)

c)Name 8 potentially life threatening chest injuries which might be found on the secondary survey (3 marks)

d)Describe how you would perform pericadiocentesis (2 marks)

e)A 70 Kg patient has just been intubated. At what minute volume would you set the ventilator? (1 mark)

15) 7 yr old child presents to A&E with a 12 hour history of headache and photophobia, but with no rash

Urea and Electrolytes as follows

Na+	125
K+	3.7
U	3.2
Cr	51

Give 2 possible neurological diagnoses for the symptoms described. (2 marks)

What is the neurological cause for the Hyponatraemia (1 mark)

2 complications of Hyponatraemia (2 marks)

Give 5 investigations you would perform in the ED for a patient with Hyponatraemia (5 marks)

16) A tall, thin 27 yr old male presents with sudden onset of right pleuritic chest pain. He flew back from Australia last week. A CXR has been performed. He has no PMH and is on no medication.

1. What is the differential diagnosis? 1 mark

PART A: Assuming his CXR shows a pneumothorax

2. Under what circumstances, under BTS guidelines, would you

a)manage him conservatively

b)Aspirate his pneumothorax

c)Insert a chest drain 3 marks

3. If you had attempted aspiration but a repeat film showed a persisting pneumothorax, when would you re aspirate and when would you insert a chest tube? 2 marks

PART B: Assuming his CXR was normal,

4. What non-radiological investigations are available? 1 mark

5. Name 3 radiological investigations available 2 marks

17) A 35 yr old female is brought to your emergency department by her family who say that she has suddenly started behaving strangely. She has had low in mood for a few days but today has become completely catatonic. Her eyes are open but she will not respond.

Her airway, breathing and circulation are normal.

1. What features would you look for in the history that would favour an organic from a psychiatric cause?

2. What features would you look for in your examination of the patient?

3. No psychiatric history. Gravida 4, Para 2. Recent joint and muscle pains. Examination is unremarkable. T= 38.7
Bloods:

Na+	140
K+	4.0
U	12.0
Cr	107
CRP	8
ESR	120

Hb	8.7
WCC	2.3
Plt	350

Urine; Protein +++, Blood –ve, Glucose –ve, Pregnancy negative.

4. Give a differential diagnosis

5. What would be your next two investigations?

6. If these are normal, what would be your next investigation?

18) A sixty-five year old alcoholic is found fitting in the street, he smells of alcohol and is brought in by paramedics, still actively fitting. His airway is controlled and he is on 15 litres of oxygen/ minute via non-rebreathing mask. His BM is 2.2.

What is the definition of status epilepticus? (1 mark)

What in a chronic alcoholic predisposes them to fitting? (4 marks)

What are your three management priorities? (3 marks)

If the fitting does not stop what would your management be? (2 marks)

19) A young man has been exposed to a chemical at the train station and is short of breath and has blurred vision. He collapses after a few minutes in the department. Many other passengers are affected.

Other than calling the ED consultant, what four steps would you take? (4 marks)

What are the other muscarinic features of organophosphorus poisoning? (3 marks)

3. Which three drugs would you use? (3 marks)

20) A sixty-five year old man has an itchy generalised rash. Your new SHO thinks the rash is scabies.

1. Describe the rash in scabies. (2 marks)

2. What is the differential? (2 marks)

3. Why is this rash itchy? (1 mark)

4. What is the treatment of choice? (1 mark)

What two features in the history would suggest the diagnosis? (2 marks)

6. What would you tell the patient? (2 marks)