



**SAQ**

**TRAINING DAY**

**EASTERN DEANERY**

**15 January 2009**

**SAQs 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)

*Anaemia secondary to haemolysis*

*Thrombocytopenia secondary to haemolysis (?increased destruction)*

2. What is the diagnosis? (1 mark)

*Pre-eclampsia complicated by HELLP syndrome (haemolysis, elevated liver enzymes, and low platelets (HELLP) syndrome)*

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

*Labetolol intravenously initially 10mg, then infusion*

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

*Call Anaesthetist/ Obstetrician/ Neonatologist*

*Insert arterial line*

*Intravenous magnesium 4-6g over 5-10mins (seizure prophylaxis should be given and BP controlled before delivery.)*

*Monitor baby by CTG*

*Deliver Baby*

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

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

PV discharge  
Lower abdominal Pain  
Fever  
Systemic upset eg vomiting

**b. Mention 4 signs you may find:**

Lower abdominal tenderness  
Cervical motion tenderness  
Adnexal tenderness  
Raised Temperature

**c. Mention two common causative organisms**

Neisseria gonorrhoea  
Chlamydia Trachomatis

**d. What Definitive test may help in the diagnosis?**

Laparoscopy

**e. Describe your Management**

Exclude Pregnancy  
Analgesia  
High vaginal swabs and endocervical swabs  
Ciprofloxacin (single dose), Metronidazole (1 week) and Doxycycline(2 weeks)  
Advise re: decreased OCP effect and alcohol interaction with Metronidazole.  
GU follow up for contact tracing repeat testing/ HIV counselling etc.

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

Peritonitis, systemic upset, requiring iv analgesia, predicted poor compliance, *Cannot rule out surgical abdomen, pregnancy, no response to abs, unable to tolerate abs/follow regimen, signs of sepsis, tubo-ovarian abscess, immunodeficiency*

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

*What 3 minimum criteria are required to make the diagnosis?*

**Lower abdominal tenderness**

**Cervical motion tenderness**

**Adnexal tenderness**

*1 extra (supporting) criteria*

**Temp, PV discharge, Microbiology, raised CRP/ESR/WCC, radiological findings**

*Name 2 serious complications*

**Ectopic pregnancy**

**Infertility**

**Peritonitis**

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?

*Are you using a tampon now?*

What is the most likely diagnosis? (1)

*Toxic Shock Syndrome*

What is a usual causative organism? (1)

*Staph. aureus. (endotoxin)*

*Strep pyogenes (exotoxin)*

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

*(half mark each)*

*Vaginal examination*

*Remove Tampon*

*Vaginal Swabs*

*U&E, FBC, LFT, ABG*

*Blood Cultures*

*ECG*

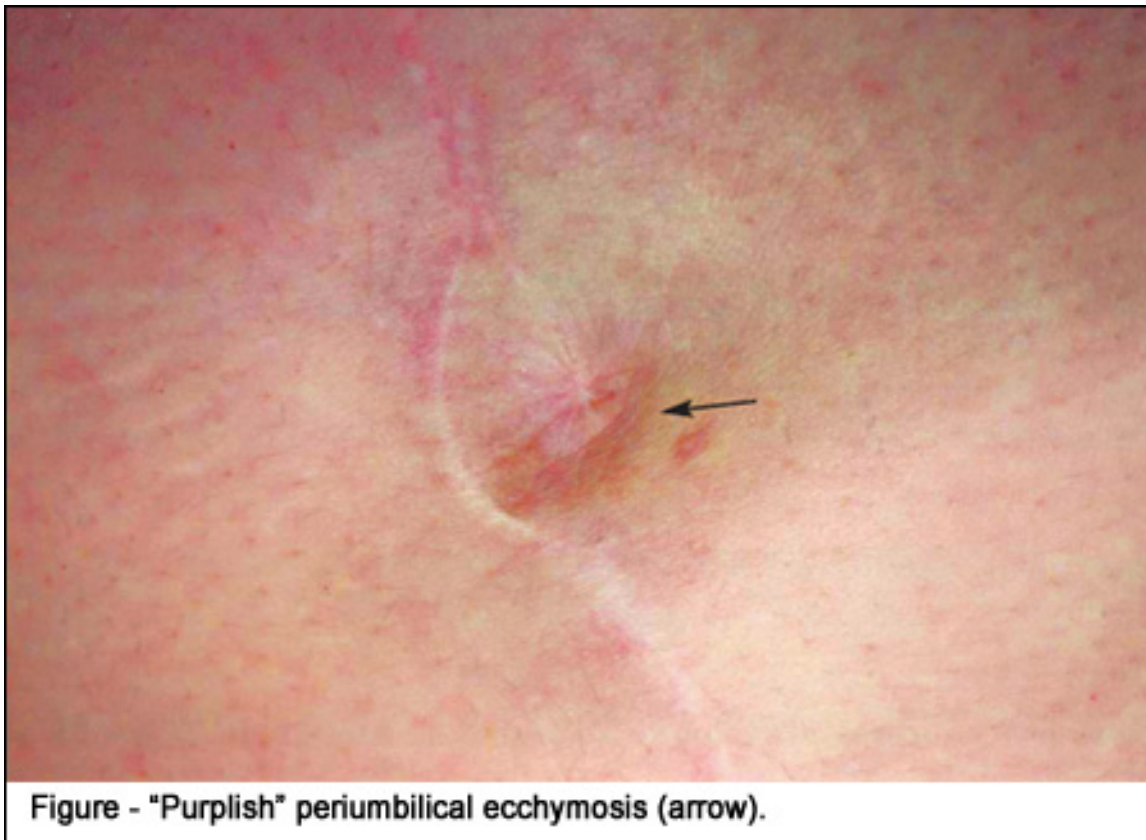
*CXR*

*IV Flucloxacillin +/- Benzylpenicillin or other anti staph cover*

*Contact ITU if refractory hypotension despite fluids*



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.



- a. *What is the differential diagnosis?*

Ruptured ectopic pregnancy (likely fundal)  
Haemorrhage from ruptured ovarian cyst  
Haemorrhagic pancreatitis

- b. *What does the photograph show?*

Abdominal distension  
Cullen's sign  
Spider naevi

c. *What two tests should be performed?*

Pregnancy Test

Ultrasound or CT Abdomen depending on if ectopic or pancreatitis more likely

d. *Describe the initial management*

ABC with high concentration oxygen by facemask

2 large iv cannula in antecubital fossae

Fluids as necessary to maintain BP 90-100mm Hg systolic

Analgesia

X-match 6 units

(FBC/COAG/U&E/AMYLASE/LFT's)

Inform O&G registrar urgently and inform anaesthetist/theatre

500 IU of Anti-D Immunoglobulin if indicated

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)

*Rhesus –ve mothers within 72 hours.*

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

*Kleihauer*

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

*delivery of Rh D-positive infant*

*threatened or spontaneous abortion*

- any after 12 weeks

- any before 12 weeks that require instrumentation (e.g. dilatation and curettage)

- any before 12 weeks if the bleeding is heavy or associated with abdominal pain antepartum haemorrhage (APH)

closed abdominal injury (e.g., in road traffic accident)

ectopic pregnancy

intrauterine death.

7. Define the following in Pregnancy:

a. A preterm infant is born before:

38 weeks of gestation

b. Human chorionic gonadotropin (hCG) stimulates:

progesterone production by the corpus luteum

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

Using Doppler ultrasonography as early as 6 weeks' gestational age

d. The most common cause of death in eclampsia is

cerebral hemorrhage

In patients with eclampsia, the most common cause of death is cerebral hemorrhage. While the most common cause of headache during pregnancy is muscle contraction headache, serious causes of headache that may be exacerbated by pregnancy include pseudotumor cerebri, subarachnoid hemorrhage, and certain brain tumors. Pregnant patients are at a five-fold increased risk of venous thromboembolism. A third heart sound, systolic murmurs and peripheral edema are common findings in pregnancy

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>

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a. What is your diagnosis?

**Umbilical cord prolapse**

b. How do you manage this patient?

1. When a prolapsed cord occurs with a viable infant, cesarean section is the delivery method of choice.
2. Placing the mother in the knee-chest position with the bed in Trendelenburg and digitally elevating the presenting part off the umbilical cord is a maneuver to preserve umbilical circulation.
3. Placement of a Foley catheter and instillation of 500 to 750 ml saline may help lift the fetus off the cord, particularly in the first stage of labor.
4. Summon Consultant/SpR Obs&Gynae and take patient to theatre maintaining a patent palpable cord circulation.

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)

- Type of sexual relationship (stable/casual)
- Number of partners
- Sex of partner
- Barrier/other types of contraception used
- Last intercourse
- Practices engaged in (oral, vaginal, anal, penetrative/non-penetrative etc)
- Symptoms
- Any symptoms noted in partner/s
- Previous STD's
- Ever had HIV/HepB-C status checked
- Previous pregnancies/terminations & LMP



On speculum examination this is what you see.



2. What does this demonstrate?

(1 point)

- Cervicitis (Chlamydial cervicitis with ectopy, discharge, bleeding)

3. List 3 risk factors for this condition.

(2 points)

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

- gonorrhoea
- chlamydia
- trichomonas
- herpes virus
- human papilloma virus
- staphylococci
- streptococci
- bacterial vaginosis
- (overgrowth of normal flora)
- candida

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

- High vaginal swab
- Endocervical chlamydial swab
- Viral swab (HVS)
- GUM clinic follow-up (inc. cervical smear test)
- Antibiotics: Doxycycline, penicillin +/- metronidazole +/- anti-thrush treatment.
- Lifestyle advice

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)

*IV access, check BP and perform UA and BM, Lie down in a quiet room(1/2 extra point)*

What features would constitute a diagnosis of preeclampsia?

(1 point)

*Pregnancy,  
Hypertension  
Proteinuria  
Oedma*

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

(4 Points)

*MgSO<sub>4</sub> 2-4 g  
Place in L lateral position,  
give O<sub>2</sub>, control  
BP – diastolic 90-100 with labetalol or hydralazine,  
Refer to O&G for urgent delivery*

What are the severity markers in preeclampsia?

(2 Points)

*Systolic >160mmHg  
Diastolic >110mmHg  
Proteinuria 3.5g/24  
Renal Insufficiency Creat >110  
Thrombocytopaenia <100x10<sup>9</sup>/L  
Neurological Dysfunction  
Oedema*



## Hepatocellular Injury Microangiopathic Haemolytic Anaemia

### 11. Reference normal pregnancy:

- a. Mention three physiological changes in the Cardiovascular system
- b. Mention three respiratory physiological changes

## **NORMAL PHYSIOLOGY OF PREGNANCY**

### **1. CVS**

#### HEART

- pushed upwards and rotated forwards with lateral displacement of the left border
- The apex moves from the 4th – 5th ICS
- Volume increases 12%
- ESM normal
- Increased LV thickness

#### ECG

- decreased voltage QRS
- deep Qs
- flat / inverted T

#### PHYSIOLOGICAL FACTORS

- CO increases by 40% and can increase by a further 2l / min during established labour
- SV increases from 64 to 71 mls
- HR increases
- SBP unchanged
- DBP falls 1st& 2nd TM
- decreased PVR (peripheral vasodilatation secondary to Oestrogen and Progesterone and increased endothelial synthesis PGE2 & Prostacyclins)
- Venous BP increases in legs but not arms

#### ORGAN BLOOD FLOW

- increased generally especially kidneys and skin
- uterus = 700ml / min at term

## BLOOD

- 40% increase in plasma volume
- 25% increase RBC mass
- BUT therefore dilutional decrease in Hb / Hct
- Increased total WCC
- Neutrophilia
- Lymphocytes unchanged
- Eosinophils unchanged but dramatic decrease in labour / delivery
- decreased platelets
- MCH unchanged
- MCV small increase
- Increased RBC fragility
- ESR increased

## COAGULATION

- increased factors VII, VIII, IX, X, XII, fibrinogen, FDPs, vonWF
- decreased XI, AT3
- increased fibrinolysis

## 2. RS

### ANATOMY

- diaphragm rises by 4cm
- transverse diameter of chest increases by 2cm
- subcostal angle increases from 68-103 degrees

### PHYSIOLOGICAL FACTORS

- O<sub>2</sub> consumption increases 15-20%
- RR unchanged
- VC increases in some
- IC increases
- ERV decreases
- RV decreases
- FRC decreases
- TV increases and therefore MV increases by 40%
- FEV unchanged

## 3. RENAL

### ANATOMY

- kidneys increase 1 cm in length

- dilatation of collecting system

#### FUNCTION

- blood flow increases 70-80% by mid-pregnancy ( decreases 3rd TM but still 50-60% greater)
- GFR increases 60% ( decreased urea, creat)
- Increased excretion glucose, water sol. vitamins, serum proteins
- Decreased plasma osmolality

#### 4. GI

Effects largely due to smooth muscle relaxation secondary to Progesterone

- gum swelling
- decreased LOS competence
- decreased secretion gastric enzymes
- decreased gastric tone and motility
- increased gastric emptying time
- decreased Small Bowel and Large Bowel motility

#### 5. Immune System

- increased TWCC by 30%
- slight decrease IgG
- slight increase IgD
- increased susceptibility to some infections (polio, influenza, malaria)

#### 6. Also

- decreased Albumin (dilutional)
- increased ALP (increased osteoclastic activity)
- increased T3, T4, TBG but normal fT3, fT4

## 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)

*Call anaesthetist, obstetrician*

*Check BP and HR, gently examine abdomen*

*Provide Entonox*

*Iv access*

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

*Put on sterile gloves. Stand on patient's right.*

*When head crowns, encourage mother to stop bearing down. Encourage rapid shallow breaths*

*Use left hand to control rate of emergence of head*

*With right hand press on either side of anus with thumb and fingers*

*Once head is delivered, allow it to extend*

*Feel for cord around neck. If possible slip it over, if not, divide and clamp*

*Allow anterior shoulder to deliver first*

*Give 5U oxytocin and 500 mcg syntometrine im*

*Deliver baby*

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

*Shoulder dystocia:*

*Lay mother flat and bend knees up onto chest*

*Apply gentle digital pressure to try to deliver anterior shoulder. Gently bend baby's neck towards mother's anus*

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)

***Adrenal Insufficiency (Addisons) due to metastatic Ca Lung(1)***

***Causes: Metastasis, TB, Sarcoid or Cessation of corticosteroids(1/2 each)***

***Primary: Autoimmune, TB, Thrombosis/haemorrhage, Infiltrative diseases e.g.sarcoid, Metastases***

***Secondary: Corticosteroid use, Radiotherapy, Infiltrative e.g. sarcoid, tumours, Head trauma***

***Must have TB and Ca Lung plus 2 others for full 2 marks.***

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

***Anion Gap = (Na + K) – (Cl + HCO<sub>3</sub>) = 12.2mmol/l***

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

***Methanol***

***Uraemia***

***DKA, alcohol or starvation***

***Paraldehyde***

***Isoniazid or Iron***

***Lactate***

***Ethylene Glycol***

***Salicylates***

14. According to ATLS

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

***Airway blockage***

***Tension Pneumothorax***

***Open Pneumothorax***

***Massive Haemothorax***

***Flail Chest***

***Cardiac Tamponade***

b)What criteria define Massive Haemothorax

(2 marks)

***>1500 ml immediate blood loss***

***Ongoing blood loss requiring transfusion***

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

*Myocardial contusion*                      *Traumatic aortic rupture*  
*Pulmonary contusion*                    *Oesophageal rupture*  
*Tracheo-bronchial disruption*        *Simple pneumothorax*  
*Traumatic diaphragmatic injury*      *Mediastinal traversing wounds*

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

*cardiac monitoring*                      *advance, withdrawing syringe*  
*2 cm inf to xiphisternum*              *withdrew if ECG changes*  
*Aim for L scapula*

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

*5-8 L min<sup>-1</sup> (100 ml/kg/min)*

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<sup>+</sup> 125  
K<sup>+</sup> 3.7  
U 3.2  
Cr 51

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

*Meningitis, intracranial haemorrhage, Migraine, Encephalitis*

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

*Meningitis*

2 complications of Hyponatraemia (2 marks)

*Seizure, anorexia, headache, drowsiness, nausea and vomiting, tachycardia and about 10 million others*

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

*Urinalysis, FBC, U&Es, LFTs, BM/glucose, urine osmolality, ECG, CXr, consider CT head, LP if no signs of raised ICP*

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

*Pneumothorax, PE, infection, musculoskeletal 1 mark for >2*

**PART A: Assuming his CXR shows a pneumothorax**

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

a) manage him conservatively

*not SOB and rim of air < 2cm*

b) Aspirate his pneumothorax

*SOB or Rim of air > 2cm*

c) Insert a chest drain 3 marks

*2x aspiration unsuccessful*

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

*D-Dimer, FBC*

5. Name 3 radiological investigations available 2 marks

*Q Scan, Spiral CT, Pulmonary angiography*

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?

*Disorientation, poor concentration, fluctuating course, Anxious, irritable, depressed, Muddled, ideas of reference, delusions, misinterpretations, illusions, visual hallucinations. Impaired memory, drug history. No previous psych involvement. Headaches.*

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

*Features of sepsis, neurological examination, neck stiffness, rash*



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

Bloods:

Na<sup>+</sup> 140  
K<sup>+</sup> 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

*SLE, encephalitis*

5. What would be your next two investigations?

*CT, LP*

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

*Anti Nuclear antibody - SLE*

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)

*A prolonged seizure (usually defined as lasting longer than 30 minutes) or a series of repeated seizures; a continuous state of seizure activity; may occur in almost any seizure type.*

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

*Hypoglycaemia/Excess Alcohol or Alcohol Withdrawal  
Hyponatraemia  
Falls & ICH  
Poor compliance to anticonvulsants  
Hepatic Encephalopathy  
Overdose of TCAs*

What are your three management priorities? (3 marks)

*Maintain airway/oxygenation  
Glucose 50mls of 50% intravenous  
Thiamine 100mg intravenous,  
Lorazepam 4mg intravenous*

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

*Lorazepam 4mg intravenously  
Phenytoin infusion 18mg/kg over 30minutes*

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)

*Isolate Patient and Isolate ED from hospital  
Instruct staff to put on Personal Protective Equipment  
Call Firebrigade to set up decontamination facility outside department  
Declare Hospital MAJAX*

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

*Salivation, Constricted Pupils, Diarrhoea & Vomiting, Bradycardia*

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

*Atropine (up to 3mg), Pralidoxime(30mg/kg), Diazepam (0.5mg/kg), Neostigime (50-70mcg/kg, max 5mg)*

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)

*Erythematous papular rash, with excoriations and evidence of burrows  
Likely palm of hand*

2. What is the differential? (2 marks)

*Scabies, Pompholyx*

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

*Dermatitic reaction to faeces of scabies mite*

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

*Permethrin, Malathion*

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

*Nighttime itchy and after hot shower, Genital Itching*

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

*Apply at bedtime. Wash off in the morning. Repeat in 1 week.  
Treat all household contacts, Launder all bedlinen/clothes/towels*