

1. A 53-year-old alcoholic presents to the A&E after an alcoholic binge with one-day history of vomiting, SOB and chest pain.

(1) What abnormality can be seen on his CXR (Fig.A)? (1 point)

Answer: Left pleural effusion

(2) Given the pleural fluid analysis (Fig B), what is the likely diagnosis? (1 point)

Answer: Boerhaave's syndrome

(3) What radiological abnormalities should you look for in this condition? (4 points)

Answer: Subcutaneous emphysema

Pneumomediastinum

Widen mediastinum

Pleural effusion

(4) How will you confirm your diagnosis? (1 point)

Answer: Gastrografin swallow

Fig. A



Fig.B

Pleural fluid analysis

pH	6.0
Cell count	800 cells/mm ³
Protein	1 g/L
Amylase	800 U/L
Gram stain	Yeast ++

2. A man's thumb was accidentally cut by the needle of a "device" (Fig A), and then presents with thumb pain and numbness (Fig B).

(1) What does the device called? (1 point)

Answer: Epi-pen

(2) What does the device contain? (1 point)

Answer: 0.3mg Epinephrine

(3) How should you assess this patient? (2 points)

Answer: Local – capillary refill of the digit
Systemic – Blood pressure and pulse

(4) What is the recommended treatment for this condition? (1 point)

Answer: Phentolamine (up to 10ml of 1mg/ml) injected into
ischaemic tissue or finger base near digital arteries

(5) What is the alternative drug of choice if (4) is unavailable?

Answer: Terbutaline

Fig A

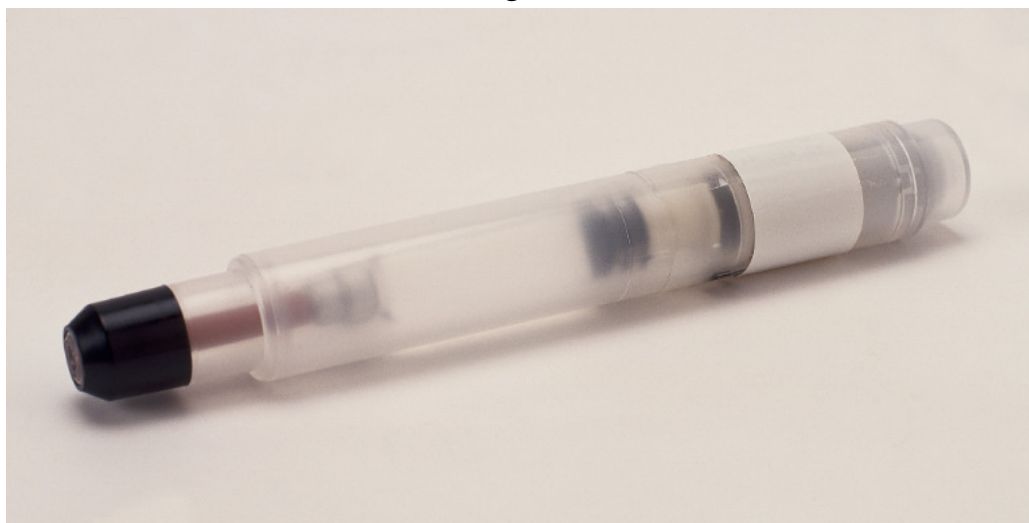


Fig B



3. A 30-year-old man complains of right hand pain and swelling after being hit by a baseball.

(1) What abnormalities can be seen on the XR (Fig A) (1 point)

Answer: an oblique, intra-articular fracture of the 1st metacarpal base.

(2) What is the diagnosis? (1 point)

Answer: Bennett's fracture

(3) What causes the associated subluxation/dislocation of the MCP joint? (1 point)

Answer: Abductor pollicis longus (APL) & abductor pollicis brevis (APB) pull the shaft of MC dorsally & radially

(4) What is the treatment for this condition? (1 point)

Answer: Closed reduction and internal fixation

Fig A



4. A 3-year-old child has had diarrhoea and fever for one week. Her mother brings her to AED because the child is lethargic and irritable.

(1) What are the abnormalities shown in the blood panel? (5 points)

Answer: 1. Hb low
2. Platelet low
3. Reticulocytosis
4. Urea elevated
5. Creat elevated

(2) What does the blood smear show (Fig 2) ? (2 points)

Answer: 1. Schistocytes
2. Spherocytes

(3) Given the blood panel and smear result, what is the likely diagnosis? (1 point)

Answer: Haemolytic Uraemic Syndrome (HUS)

(4) What is the likely cause of the diarrhoea? (1 point)

Enterohaemorrhagic E.Coli (O157:H7)

Fig A

Hb	8.8g/L	(13-17)
WBC	$8.0 \times 10^9/L$	(5.5-15.5)
Platelets	$48 \times 10^9/L$	(150-400)
Reticulocyte	$3.0 \times 10^9/L$	(0.0-1.0)
Neutrophils	$5.1 \times 10^9/L$	(1.5-8.5)
Lymphocyte	$2.1 \times 10^9/L$	(2.0-8.0)
Eosinophil	$0.5 \times 10^9/L$	(0.02-0.65)
Monocyte	$0.5 \times 10^9/L$	(0.0-0.8)
Urea	35.2 mmol/L	(3.0-8.0)
Creat	0.32 mmol/L	(0.05-0.1)

Fig B



5. A 40-year-old woman, with known history of SLE, presents to A&E with shortness of breath.

(1) What abnormality can be seen on the ECG? (Fig A) (1 point)

Answer: electrical alternans

(2) What abnormalities can be seen on the echocardiograph? (Fig B) (2 points)

Answer: 1. Fluid in pericardial space
2. Collapse of right ventricle

(3) What ultrasound finding is suggestive of tamponade? (Fig C) (1 point)

Answer: Positive Sniff test – IVC dilatation without inspiratory collapse

(4) Name 3 commonest atraumatic cause of this condition. (3 points)

Answer: 1. Malignancy
2. TB
3. Uraemia

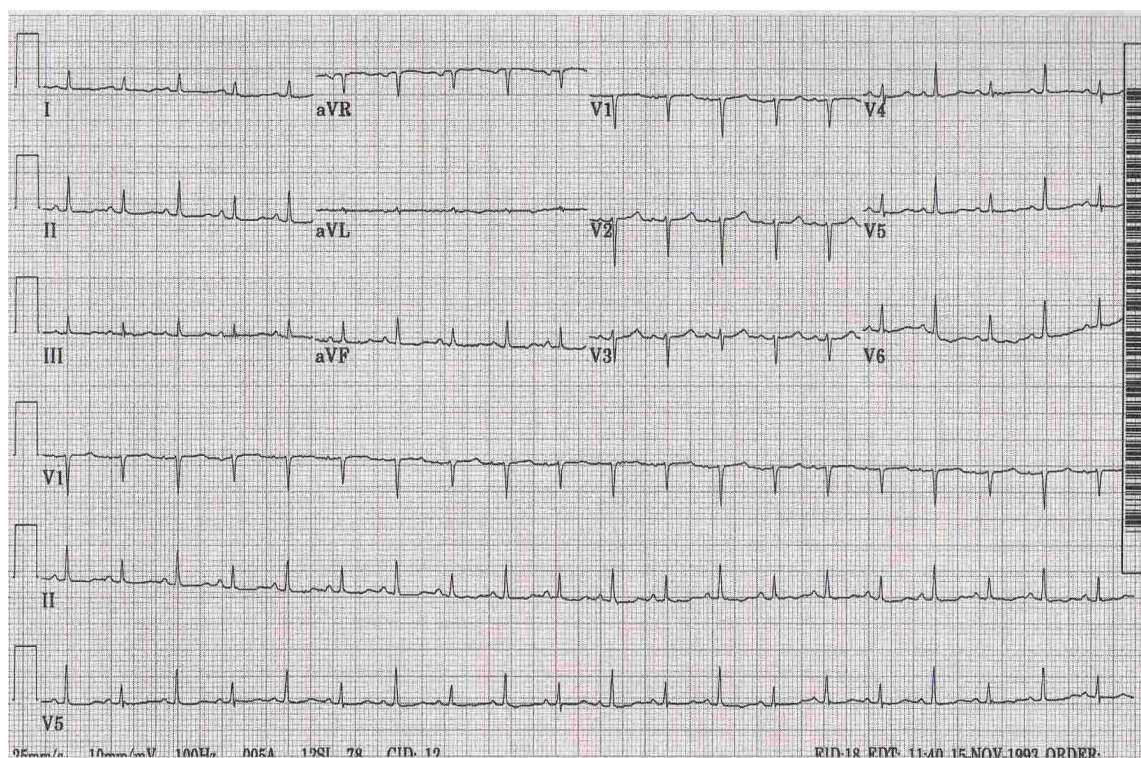


Fig. B

